Innovating Talent Cultivation Mode of "Co-education between University and Local Place" and Training Talents of "Better Understanding of One's Learning and Better Effectiveness of One's Practice" in a Collaborative Way

Rongde Wang, Zhihe Mao, Yonggen Gu, Jiayao Peng

Huzhou University, Huzhou, Zhejiang Province, 313000 rdwang@zjhu.edu.cn

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Abstract: The cultivation mode of co-education between university and local place has been formulated during a long course of running the university, the connotation of which is to arouse the initiative of university and local place, meeting the social requirements, interacting between university and local place, integrating teaching and industry, cooperating between university and enterprise, reconstructing curriculum system, building practice platform, carrying out dual-tutors system of university and local place in order to promote the system of diploma and vocational qualification certificate, that is "dual-certificates" with which we have, collaboratively, cultivated high-quality application-oriented talents under the concept of "better understanding of one's learning and better effectiveness of one's practice". Our successful experience includes: treating the concept of "better understanding of one's learning and better effectiveness of one's practice" as cultivation goal, improving the cooperation mechanism of co-education between university and local place, innovating the cultivation mode of co-education between university and local place, optimizing the way to success of "better understanding of one's learning and better effectiveness of one's practice", all of that have broadened the thinking to cultivate application-oriented talents with innovative capacity and played a positive role in demonstrating the cultivation of application-oriented talents by a local university.

1. Introduction

Huzhou university was promoted to undergraduate education in 1999, since then our university has taken a lead in studying and practicing the co-education between university and local place and has so far, about 20 years, gained the achievement of Innovating Talent Cultivation Mode of "Co-education between University and Local Place" Training Talents of "Better Understanding of One's Learning and Better Effectiveness of One's Practice" in a Collaborative Way upon the intensive exploration and practice enhancement.

1.1. Main problems solved in teaching

- (1) With the single manner of cultivating talents, we have carried forward the co-education between university and local place, integrating teaching and industry, combining local resource advantages with university education advantages, forming a situation of collaboratively cultivating high-quality application-oriented talents between university and local enterprise.
- (2) With the closed mode of cultivating talents, we have changed the disjoining existence between students' cultivation and social needs, collaboratively, cultivating students' practical innovative capability between university and local place, so that closely associating the talent cultivation with social requirements.
- (3) With the narrow path of students' success, we have implemented the most appropriate education, focusing on students' personal development, arousing their learning interest, putting into effect the categorized cultivation according to teacher type, academic type and application type with students' different needs.

1.2. This research insisting on theoretical research as guide

In February 2006, General Secretary Xi Jinping came to our university for an inspection when he was working in Zhejiang Province, he proposed our university-running requirements of "making measures suitable to local conditions, demonstrating characteristics and serving the local place.", meanwhile, highly affirmed the concept of "better understanding of one's learning and better effectiveness of one's practice". Accordingly, we further innovated the talent cultivation mode of "co-education between university and local place", collaboratively cultivating talents of "better understanding of one's learning and better effectiveness of one's practice". So far, we have published over 20 research papers of High Education through more than 10 national and provincial scientific and teaching projects which have formed the theoretical support for this achievement.

1.3. Practice exploration through "three stages"

The practice exploration has been done according to the cooperative education concept and OBE concept, stage by stage, carrying out the top-level design of cultivation goal, talent specification, resource integration, cultivation path, institutional mechanism and management evaluation. The first stage, before the year of 2007, we have emphasized on cultivating the qualified teachers for basic education in order to push forward the co-education between university and local place. The second stage, from the year of 2007 to 2016, we have further developed the co-education between university and local place, quickened the pace of application-oriented talent cultivation. The third stage, since the year of 2016, we have elevated the co-education between university and local place, creating a community between city and university development.

1.4. Forming institutional guarantee for "four mechanisms"

In practice, we have summarized and refined the mechanism of consultative cooperation, built the sharing mechanism, collaborative innovation mechanism and radiation promotion mechanism in order to guarantee the continuous progress of the co-education between university and local place.

1.5. Innovating cultivation mode in "four fields"

With the cultivation mode of "co-education between university and local place", there are teachers for basic education in teaching field, business talents in business field, modern engineering talents in engineering field and general practitioners in rural communities in medical field based upon which the mode of "government as guidance, demand as driving force, cooperation between university and local place, collaborative cultivation of talents" has been formulated.

1.6. Optimizing the way to success of "three orientations"

With the social requirements and the actual state of students, we have implemented the categorized cultivation in three orientations: teaching type, application type and academic type so as to let students get the most appropriate education.

This achievement has influenced 53 undergraduate majors, 30335 graduates for 14 years in our university. In recent 5 years, our achievement has again been tested and enhanced with 13038 graduates and 18000 university students. Since the year of 2013, students have gained 658 discipline competition awards above the provincial and ministerial level (in which 57 are at the national level) and 307 patents, published 864 research papers, the initial employment rate reached 98.38% and our university has been commended as the "national civilization unit".

This achievement has been carried in Guangming Daily, China Education Daily and Reference for Higher Education Leaders, many times the achievement has been specially presented at China University Teaching Forum and Joint Conference for National Newly-built Colleges and Universities. More than 60 universities in and out of our province have come to visit our university, therefore, we have offered the talent cultivation paradigm for local university.

2. Basic Practice

2.1. Insisting on the Cultivation Goal of "Better Understanding of One's Learning and Better Effectiveness of One's Practice"

We have worked with the fundamental issue of "what type of talents we can cultivate and how to cultivate them", complied with the cooperative education concept and OBE concept, cultivated talents of "better understanding of one's learning and better effectiveness of one's practice" through the co-education between university and local place, and also insisted on the implementation.

The mode of "co-education between university and local place" is to combine local resource advantages with university education advantages, forming development community by co-win cooperation, solving the problems of university resource, reconstructing curriculum system, building practice platform, carrying out the dual-tutors system of university and local place, collaboratively cultivating talents of "better understanding of one's learning and better effectiveness of one's practice".

The motto of our university is "better understanding of one's learning and better effectiveness of one's practice" which was originated from the educational concept by Hu Yuan who was the founder of "Hu School" in early Northern Song Dynasty. The modern connotation of the motto is that setting one's will and learning to be a man; applying one's knowledge and learning to do things. [1] (Rongde Wang, 2008) The motto of our university "better understanding of one's learning and better effectiveness of one's practice." is highly confirmed by General Secretary Xi Jinping when he came to our university for an inspection while working in Zhejiang Province. He said that "better understanding of one's major" is to "educate students with deals, morality, knowledge and ambition"; "better effectiveness of one's practice" just means "to be useful and promising person" which meet the "requirement of contemporary teaching and education". We hold that "better understanding of one's learning and better effectiveness of one's practice" is closely related to the goal of high quality application-oriented talent cultivation.

2.2. Improving the Collaborative Mechanism of "Co-education between University and Local Place"

According to "1(university)+1(government)+N(enterprise, hospital, university etc.)" model, we have set up the "co-education between university and local place" board of directors and professional steering committee with university, government departments, enterprise and institution employing units, establishing the mechanism of consultative cooperation. With the talent cultivation goal, we have integrated the resources of our university and local place, working together to promote the connections between professional arrangement and industry need, curriculum content and professional criteria, teaching process and production process which is called "three connections", thus, forming the co-building and co-sharing mechanism. We have also set up the vocational college and collaborative innovation center, turning the new advantage of cooperation between university and local place into the new advantage of talent cultivation, integrating the collaborative industry teaching, forming the new innovation mechanism "government-university-enterprise". Moreover, we have established university alliance around Taihu Lake, carrying out inter-collegiate cooperation, exchanging experience, learning from each other, formulating the radiation promotion mechanism of co-education between university and local place.

2.3. Innovating the Cultivation Mode of "Co-education between University and Local Place"

Following the cooperative education concept and OBE concept, we have taken the co-building, co-sharing and co-winning as principle, solving the problem of "one side enthusiasm". Meanwhile, with the guidance of government, we have invited the participation of enterprise, integrated teaching and industry, both of us, university and local place, have worked together to formulate the talent cultivation program, build teachers' team, set up practice base, take part in teaching process, strengthen quality management and carry out the enrollment and employment. Through the project of excellent plan, national characteristic professional construction, innovation and business-starting

training programs for university students at the state level, a cultivation mode of "co-education between university and local place" has been formed, there are teachers for basic education in teaching field, business talents in business field, modern engineering talents in engineering field and general practitioners in rural communities in medical field based upon which the mode of "government as guidance, demand as driving force, cooperation between university and local place, collaborative cultivation of talents" has been put into effect as well.

2.4. Optimizing the Way to Success of "Better Understanding of One's Learning and Better Effectiveness of One's Practice"

We have adhered to the motto of "better understanding of one's learning and better effectiveness of one's practice", implementing the most appropriate education, letting teachers take the lead, treating students as the main part, taking the way to success as the main line, designing "road map for success" for every major, ^[2](Yunliang Jiang, Rongde Wang, Yonggen Gu, 2012) giving students the initiative to success, carrying out the categorized cultivation with teaching type, academic type and application type, intensifying the theoretical teaching, skill training and quality elevation at different stages. Furthermore, we have built the experimental zone for talent cultivation and practice base by university and local place, increasing optional courses, practice content and innovative credit, setting up minor courses, entrepreneurship zone for university students, establishing innovation and entrepreneurship college so as to offer the support to students' growth, development, innovation and entrepreneurship.

3. Innovation Points

3.1. Taking the Lead in Carrying Out the Study on Theory and Practice of "Co-education between University and Local Place"

So far, we have constructed the theoretical system of "co-education between university and local place" from two levels, one is the top design, the other is the connotation construction with the talent cultivation of a local university. We have gone through "three stages" practice exploration in an innovative way, forming the system guarantee of "four mechanisms", various cultivation modes of "co-education between university and local place", ways to success of "three orientations" and six joint works by university and local place (formulating talent cultivation program, building teacher team, setting up practice base, participating in teaching process, reinforcing quality management, enrollment and employment) with which the theory of "co-education between university and local place" has been enriched, been summarized and perfected constantly in practice, as a result, we have achieved positive results, have formed a new situation of "co-education between university and local place" with the content as "categorized cultivation, collaborative boost by university and local place, teacher team building jointly, enhancement of practice and training, realization of cooperation and win-win".

3.2. Taking the Lead in Exploring the Institutional Mechanism of "Co-education between University and Local Place"

We have established a "cooperation leading group between university and local place" led by Huzhou Municipal People's Government, secretary of Municipal Party Committee and mayor are group leaders, the "co-education between university and local place" has been compiled into development plan by our university, Implementation Suggestions to Deepen the Reform of Co-education between University and Local Place Talent Cultivation Mode has been published, a innovative ecosystem been improved and closely associated with the key enterprises so that the discipline construction and industrial transformation and upgrading has adapted to each other, structural adjustment mechanism of talent cultivation been perfected with the orientation of demand, university board system been improved, more industry, enterprise, social organization been invited, internal management organizations been adjusted, "co-education between university and local place" office, cooperation education committee of industry, learning and research, cooperation

leading group by university and local place been set up, consequently, a new working institution of co-education between university and local place been formulated.

3.3. Taking the Lead in Forming Various Cultivation Modes of "Co-education between University and Local Place"

The development community has been established by university and local place, setting up innovation and entrepreneurship college and integration college between teaching and industry, our university together with local place have had thorough communication and consultation around those important elements as the cultivation goal, courses, manners, practice, teachers, evaluation etc. Thus, local place has participated in the talent cultivation work of our university through different ways such as from order-type cultivation to curriculum arrangement, from practice base to students' practice, from the mutual recruitment on both side to building the innovation center together, from the recruitment to employment, anyhow, cooperative win-win has been realized. Upon the successful experience summarization of talent cultivation mode by co-education between university and local place with basic education teachers, business talents, modern engineering talents and general practitioners in rural communities, the application-oriented talent cultivation mode of general practitioners in rural communities has been promoted throughout the province instructed by the provincial governor, bringing about positive influence in and out of our province, further improving the talent cultivation system of multi-agent collaboration, forming a co-education between university and local place new mode of "government as guidance, demand as driving force, cooperation between university and local place, collaborative cultivation of talents".

4. Positive Results

4.1. Promoting "Better Understanding of One's Learning and Better Effectiveness of One's Practice"

The motto of "better understanding of one's learning and better effectiveness of one's practice" has been implemented by both teachers and students, the teaching essence of combining knowledge with action going into the practice of education and teaching, enhancing the construction of "being a man of noble character", forming good teaching style and learning style as well. In 2012, the project named "Building Cultural Venues, Cultivating New Cultural People——A New Way to Cultivate Cultural People by Huzhou University" got the prize of "Outstanding Achievement Award for Campus Cultural Construction of National Colleges and Universities", in 2015, the same award was got for the project named "Love Permeating the City of Huzhou, Warmth Prevailing the City of Huzhou——The Voluntary Service Culture by Huzhou University Putting the Core Values Education into Practice", moreover, in 2015, the project "Caring for Autistic Children by Voluntary Service Team" was named by the Publicity Department of the Central Committee of the CPC as "National Demonstration Site of Learning from Lei Feng", this project has been successively selected by the Civilization Office of the CPC Central Committee into the honors as "Good People List in China", "The Most Beautiful People in Zhejiang Province—— Youth Leaders in 2015" etc.

4.2. Fruitful Achievements in Education and Teaching

Both teachers and students have innovated the cultivation mode of "co-education between

University and local place" which has offered a strong support to the cultivation of high quality application-oriented talents. The related achievements have won the second prize of national teaching achievement with two items, the first prize of provincial teaching achievement with three items, second prize with four items. Primary school education, math and applied math have been approved as national characteristic majors in which math and applied math have been simultaneously confirmed by the Ministry of Education as the first pilot project in comprehensive reform named "Undergraduate Teaching Project" in a local university. The "Outstanding Doctor Cultivation Plan" and the "Outstanding Agriculture and Forestry Talents Cultivation Plan" have become the first national pilot projects. Besides, there are 20 characteristic majors at provincial

level, 2 national excellent courses, 2 excellent resources sharing courses, 25 provincial excellent courses, 4 open excellent courses on line. Meanwhile, we have actively pushed forward the internationalization of education and offered our service to "one belt and one road", established Confucius Institute collaboratively with National Language University in Azerbaijan, at present, there are 435 overseas students from 39 countries.

4.3. Continuous Enhancement of Cultivation Quality

The employment rate has been over 96.6% for recent 5 years, the satisfaction of employing units been the forefront of similar universities, students have gained 658 awards above the provincial level in class A subject contests in which there are 57 national awards, 65 provincial special and first awards. So far, students have published 864 research papers, obtained 307 patents, 650 been enrolled as postgraduates which reached the rate 7.08% in 2016, there are over 200 graduates who have been admitted as postgraduates into those famous universities as Zhejiang University, Xiamen University etc. In 2010, student Geng Chanchan won the champion in National University Students' Karate Tournament Women's 50 kg, student Gao Keqing also won the champion in Zhejiang Provincial Tennis Tournament Women's Singles, student Chen Fenfen got the prize as the "Pride of Zhejiang Province", student Lai Yujiao gained the honor as the Top Ten Pioneer Talents in Zhejiang Universities, student Han Yangwen, National Excellent Communist Youth League, the first group of excellent volunteers in Zhejiang Province "Two Programs" as Wang Chao, Jin Wangsheng, Jiang Xingbo, Jin Qingqing etc. The statistics of ranking list from three universities in our country show that our university has been ranked the top 30% of normal colleges and universities in China

4.4. A large Number of Schoolfellows

Our university has implemented the "most appropriate education", co-education between university and local place, teaching students in accordance with their aptitude, categorized cultivation from which students get developed as fast as possible, they have displayed their talent in their own posts when graduated from our university. Those schoolfellows in the teaching type have become high or primary school teachers among whom most of them have developed into the backbone teachers, top teachers, special-class teachers or headmasters of high or primary schools. According to certain statistics, there are 52 special-class teachers among the schoolfellows. Those schoolfellows in the application type have been distributed in various fields such as Party and government offices, enterprises, hospitals among whom there are model workers, technical experts, Nightingale Prize winners, 42 of them have served as provincial and ministerial leaders or municipal leaders, 9 of them have been chairmen of listed companies at home and abroad or technical directors. Those schoolfellows in academic type have actively worked in university scientific research institutes among whom there are lifetime professors in Harvard and Oxford universities, some are the Yangtze River Scholars in national universities.

4.5. Solid Progress of Co-education between University and Local Place

The connotation of co-education between university and local place is to arouse the initiative of university and local place, meeting social requirements, interacting between university and local place, integrating teaching and industry, cooperating between university and enterprise, reconstructing curriculum system, building practice platform, carrying out dual-tutors system of university and local place in order to promote the system of diploma and vocational qualification certificate, that is "dual-certificates" with which we have, collaboratively, cultivated high-quality application-oriented talents. Through the establishment of "co-education between university and local place" board of directors and professional steering committee, we have emphasized the collaboration in talent cultivation program, teacher team, practice base, classroom teaching, quality management, recruitment and employment so as to enhance the cultivation mode reform of "co-education between university and local place", collaboratively innovating the central construction and building the new mechanism of industry, learning and research. Our university has signed cooperation agreements with 164 enterprises and institution units, there are 116 teachers'

development schools built in cooperation with local government, high and primary schools, some laboratories and teaching research centers in cooperation with enterprises, e.g. jointly constructing Huzhou municipal emergency rescue modular teaching and research and training center together with Huzhou municipal Red Cross emergency rescue college and 14 municipal bureau units. From 2011 to 2017, we undertook over 1600 projects to serve local place, the fund for those projects reached 280 million RMB (inside which there are more than 700 horizontal scientific research projects, 24 projects with million yuan, the total project fund reached over 90 million RMB), all this have demonstrated the significant benefits of economy, society and ecology, for instance, the project named "The Technology Study and Application to Pollution Reduction Control and Purification Treatment of Sewage Discharge in Typical Breeding" has brought to the enterprise economic benefit over 3 billion yuan. So far, we have participated in over 250 city, county and district cooperation research projects in which near 30 ones have got the positive instructions of city leaders, at the same time, we actively applied for the industry and learning cooperation talent cultivation project which resulted in 32 industry and learning cooperation talent cultivation projects confirmed by the Ministry of Education from 2016 to 2018. In addition, we have actively brought in social resources, up to now, we've adopted 20.517 million RMB donations from social organizations and individuals, 11 incentive funds have been established.

4.6. Expansion of Social Influence

The cultivation of general practitioners in rural communities with "co-education between university and local place" of our university has been confirmed by Zhejiang provincial government, therefore, it has been popularized throughout the whole province with the direction by provincial governor, moreover, the cultivation of application-oriented talents with their personality development has been fully approved by leaders in Zhejiang provincial education department, leaders from Higher Education office of Zhejiang provincial education department made a special trip to our university for investigation and guidance concerning how to summarize our experience. What we have done and what experience we have gained have been many times carried in Guangming Daily, China Education Daily, Reference for Higher Education Leaders, Education Information Daily and website of Zhejiang provincial education department, time after time, we have delivered special presentations at China university teaching forum, national joint conference of newly-built college and university, president forum of local college and university and provincial conference of dean of studies. People in more than 60 colleges and universities in and out of our province came to visit our university which has best demonstrated that the thinking to cultivate application-oriented talents with innovative capacity by a local university has been broadened. meanwhile, meanwhile, providing them with experience and example.

5. Conclusion

It is of great importance to actively absorb local resources in participating talent cultivation for a local university, moreover, the joint cultivation between industry, university and local place mode, the integration between industry and teaching are undoubtedly excellent ones. Therefore, the mode of co-cultivation between university and local place to cultivate high–quality application-type talents possess the commendable popularization value.

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