

A Historic Choice: The Ningbo Module of Vocational Higher Education for Serving the Community and Society

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Abstract: Higher education, especially vocational higher education should serve society, the community and the enterprises to motivate a win-win result of mutual development and cooperation for Chinese society and higher universities. Taking the strategic action to serve the society in Ningbo professional technology institute for instance, the research summarizes theoretically the inevitability and the feasibility of the interaction with mutual benefit in the model of the combination between the universities and society, which becomes the engine of social progress esp. in the manufacturing industry. Meanwhile the research conclusion warns the society that the universities serving the society should avoid the tendency of excessive utility and shouldn't ignore the serving object of education—university students. People must persist in the quality of scientific, higher educational, practical applicability and perceptiveness.

Key words: vocational higher education; university serves the society; the combination of producing; study and research; the serving object of education

1. Introduction

After making close observation and deep investigation to the new module of vocational higher education characterized by Ningbo Polytechnic, the researchers concluded that the combination and cooperation between higher education and the society and community has great effect upon the development of the local economic progress and the college's improvement. However, Vocational education, the author warns out, should not be fixed only on the homogeneity of occupation, and opens only one eye to economic requirement and shut the other to students' integrated development. And Vocational education should make more contributions to the potential capacity of technical creation, production development and technical spread so as to serve the society and economy in many ways without only limiting in school.

ZHOU Ji, the minister of education of PRC, pointed out at the experience exchanging reference of the combination of producing, teaching and researching which is advocated in Chinese higher education that it is a must-do in reform and development for Chinese higher education to integrate producing, study and research. The integration of producing, study and research in higher education makes it possible to solve the economic difficulties, to decide the training trends and improve employment.

2. The New Module: Cooperation between the College and Community

Ningbo polytechnic is located on Ningbo economy and high-tech development zone, side by side with the

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Bonded zone. Beilun district, especially the bonded zone has become the strategic key base of using foreign funds in Zhejiang province. It absorbs great quantities of transnational corporations, huge investing projects, hi-tech entrepreneurs every year. It is reported that about 40 countries have invested over 5000 entrepreneurs in the district, including 855 total foreign investing ones. Up till now, seven industry groups as computer, photoelectric semiconductor, precision machining, international trading and logistics storage and circulation have dominated the local economy. By estimate and statistics, the bonded zone will be in need of 60,000 workers with corresponding skills and technology in 2010.

Therefore, serving the local community and satisfying the economic needs is a win-win strategy for both the college and the society. Ningbo polytechnic grasps the opportunity to 1.improve its managing level including education system and programs, enlarging its scale of investment in capital construction; 2.enroll more students for the present and future need. The college has taken the first step. In the past seven years, it has cultivated 3000 students for the Bonded zone and 30% of them have become key technicians. The college has established 38 specialties, which are closely, related to the local economy especially the manufacturing industry; therefore most of the undergraduates in the college have been pre-employed by the companies.

2.1 Serving the community, serving the college itself

The cooperation between colleges and the community benefits the college as well. It is the aim for colleges to cultivate the right workers for the industry, so it is ideal that the industries take part in the construction of the colleges' specialties and teaching programs and the establishment of skill training and practicing plan. Meanwhile the students to be workers at industries are now at college but need adequate post-training for future employment. The cooperation provides them the opportunities.

It is widely agreed that vocational colleges must have great quantities of teaching equipments for students' practice on. However, without the help of various companies, colleges hardly manage it for the limitation of funds. Serving the community creates many occasions for entrepreneurs to know the needs and they will voluntarily provide the equipment for colleges, which will save future workers the pre-post training.

2.2 Serving the community help push forward the scientific research and new technical development

The scientific research in higher vocational education must focus on the local economic growth and combine with the hi-tech in industries. Teachers in polytechnics may take the advantages to investigate the economic developing trends and make more achievement in their fields. Serving the community means more contact with the local firms and touches the difficulties and technical obstacles in the production process, which will be the opportunities for the teachers in polytechnics to take their part in.

2.3 Serving the community improves staff's ability of re-employment

With the transformation of the traditional labor-intensive industries and the rise of high value-added and technology-intensive industries, a lot of workers only with junior or intermediate technical level skill are forced to be laid off, while a shortage in large numbers of high-tech jobs troubles the development of community and the enterprises. The re-employment of laid-off workers will be achieved through vocational training; Meanwhile, the introduction of high & new technology and advanced equipment of the enterprises require the further enhancement of the quality of the staff of the enterprises: to make it possible for the staff to receive continuing education or job training, and update their knowledge. It introduces the latest achievements of domestic industries, forecasts the development trend, etc. The College adheres to employment-oriented policy, launches many projects, like customized-model enterprises' internal training services, skills training, pre-job training and staff's overall quality training, etc, Greatly improve the ability of workers and their ability of reorienting posts. Meanwhile, the college

shifts work according to the regional population gradient and accelerates the vocational training of rural labor force for career transition. In 2005, there were 206 landless peasants enrolling in the college to receive higher education, 3184 workers from Beilun Port Container Company, Haitian Group, Inc and other enterprises receiving management training courses, vocational skills training and vocational quality training, 2179 people receiving language training and 1347 people receiving Vocational qualification certificate training.

2.4 Sharing the profit between the two sides (colleges and enterprises)

With the use of advantage in personnel, the college researches, develops and settles the problems encountered during the production and operation of enterprises by the way of accepting the commission of enterprises, or actively cooperating with engineering and technical personnel of enterprises, thus promoting the communication of the personnel between college and enterprises, promoting the development of enterprises and enhancing the vitality of the regional economic development. For example, teachers of Minfu department of mechanical engineering took active part in tackling key technical problems of Minfu, Inc and developed more than 10 products of mechanical and electrical integration, such as “well-chain mechanical CVT”, “Upgrade Electrical System”, etc. Meanwhile, the college makes full use of all kinds of soft science research (such as library information, the knowledge and skills of experts, professors and senior technical personnel) and enters information market to offer consultation, suggestion and policy advice to the government, especially to the enterprises and development planning, major construction projects and technical research projects, thus better promotes the regional economic development.

3. Deepening the Service: Establishing All-round Human Resources Support

Ningbo Bonded Zone is a national bonded area, which has more than 5,000 enterprises, with registered capital of over 40 billion dollars, with three main functions of import-export processing, international trade and warehousing logistics. Ningbo Polytechnic and the Ningbo Bonded Zone try “school-zone cooperation” and achieve a close docking between the college and regional enterprises. During these 4 years, the college has trained around 60,000 industrial recruitments. This model is a new way of deepening school-enterprise cooperation and exploring space of cooperation.

3.1 College and zone cooperation, jointly build a talent base

Relying on the college resources of Ningbo Polytechnic, Ningbo Bonded Zone builds a “Ningbo Bonded Zone Training Base” to offer talents training service to enterprises in the zone. The base provides six major categories over 50 training projects including theme training, Dagang elite training camps, academic education, foreign trade training, vocational qualification certificate training and enterprises’ internal training.

3.2 East-west cooperation, build talent networks

Relying on cooperation between east higher vocational and technical colleges & secondary vocational and technical schools and west higher vocational and technical colleges & secondary vocational and technical schools developed by Ningbo Polytechnic, broaden the talent-introduction networks of Ningbo Bonded Zone, vigorously introduce all types of talents trained by western schools. Adopt “2+1” model: students learn in the western Vocational College in the first two years, in the third year, the students receive special training and participate in internships in Ningbo Polytechnic, and find job with the help of Ningbo Polytechnic.

3.3 Information communication, build platform for resource sharing

3.3.1 Establish information base of experts of the district and schools, build a servicing platform for

high-level management, professional and technical personnel of the enterprises in Ningbo Bonded Zone and highly educated and high-titled talents in Ningbo Polytechnic.

3.3.2 Establish a mechanism for sharing the teaching facilities and equipments of the college. All paper and electronic databases of the college library are open to the tower organs network and High-level enterprise management and dedicated technical staff of Ningbo Bonded Zone.

3.3.3 Play professional and technical advantages of the research centers of the college; provide technical services and management consulting services to the enterprises in Ningbo Bonded Zone.

3.4 Cultural integration, promote dynamic enterprises

Ningbo Bonded Zone and Ningbo Polytechnic make common efforts to provide all kinds of services to the enterprises in Ningbo Bonded Zone thereby enhance the overall quality of employees, improve the level of enterprises management, and promote the formation of “Enterprise culture of Ningbo Bonded Zone” shape.

4. About Some Problems in “Order-training”

“Order-training”, which is in the ascendant now, has become an ideal model of personnel training in higher vocational education field. “Order-training” is actually a kind of training, which the enterprises customize from schools. The characteristic of “Order-training” is that it must meet the requirements of enterprises. It is thought that “Order-training” is a shortcut. Schools are able to have a definite object in view to distribute the teaching resources according to enterprises’ actual demand for talents. Thus, schools and enterprises achieve their aim of sharing advantages and benefit each other. For schools, “Order-training” solves the problems of blindness; obscurity and high-cost which ever existed in teaching. High employment rate, which “Order-training” brings also, enhances the competitiveness of schools. For students, they are able to know their employment units and specific posts in advance and have chances to practice in corresponding enterprises. Thus, they learn with clear targets and have no trouble with employment problem. However, the study shows that: if “Order-training” is not handled well with blind pursuit of orders and school education is totally under the guidance of enterprises, schools’ training goals, the personal qualities of students and sustainable development of graduates are probably to be abandoned and this kind of education is probably to deviate from the track of higher education.

Narrow “Order-training” one-sided regard “Adhere to the principle of serving” which higher vocational education emphasizes as “Entirely for the purpose of serving enterprises”, thus neglect the development of individual students and the principle of serving students. “Employment-oriented” one-sided emphasizes the current number of graduates’ employment but neglect graduates’ individual demands, which make two-way choice between enterprises and graduates into one-way option dominate by enterprises. The policy of “On the development road of school-enterprise-research” stays in formalism and is not able to be implemented in reality. In current higher vocational education, some schools abandon scientific thinking of teaching and cater for the demands of the current labor-intensive enterprises, low-tech enterprises and even some speculative enterprises. Graduates who are trained simply according to the “order” of enterprises are just the enterprises’ temporary labor who are only adapted to the present, but unsuited for the future, only adapted to the low-grade, but unsuited for the high-tech, only adapted to the region, but unsuited for the global. Narrow “Order-training” which has been badly simplified plays individual development of students in a secondary position, abandons “People-oriented” concept advocated in modern education and equals high vocational education to pre-job training. Meanwhile, such shortsighted behavior conversely restricts the development of enterprises.

5. Conclusions

Social services are like a bridge linking colleges to society, which is also one of the most important conditions determining the existence and development of colleges. Through social services, not only can colleges fully absorb and utilize all kinds of information from the community and learn about society's demand for qualified personnel, but also they can expand their reputation and accept the test of social practice. In this way, harmonious development between higher vocational education and economy, politics and culture of society can be achieved. Meanwhile, colleges can promptly adjust their school-running thinking according to the needs of society and set up marketable specialties to cultivate personnel urgently needed by society. Ningbo Polytechnic's school-running thinking of "university-enterprise-research combination", "serving society", "serving the community" and "serving enterprises" opens up a new and important way to the model of higher vocational education. However, no model is perfect. Under the thinking of "serving society" and "serving local enterprises", two issues must be paid more attention: Firstly, higher vocational education is a kind of high-level education which demands that its teaching must adhere to keep scientific and frontier spirit. Secondly, Higher vocational education must focus on the campaign to improve educates' overall capability and potential, basing upon today's position and cultivating talents and personnel suitable for the future. In conclusion, not only should higher education serve society, but also should serve students.

References (omitted)

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to elementary education and junior education—invest to elementary education, junior education and senior education—invest to junior education and senior education—invest to senior education—use it to enlarge higher education”.

5.3 Condense structure

Personnel outlay is too high, and the proportion of enterprise is too low. The main sticking point of that is structure overstaffed, and personnel miscellaneous. The structure is the bones of the school, so it must be extractive and effective. We should ensure : firstly, we set up it by needing principle; secondly, any unit of the school should limit its personnel to the lowest, and make every station full workload, pledge the school obtain the best benefit with the lest use.

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