

Research on the Dynamic Adjustment Mechanism of Specialty in Applied Universities to Meet the Needs of Industrial Development

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Abstract: There are still prominent dislocation problems between the demand for compound high-quality talents proposed by industrial upgrading and the supply of talents in colleges and universities. Specialty is the “focus” of applied colleges and universities to serve the industrial economy. Starting from the theoretical interpretation and analysis, this paper explores the internal relationship between the professional structure and industrial structure of applied colleges and universities, and puts forward the realization path and strategy for the dynamic adjustment of specialty in applied universities to meet the needs of industrial development.

Keywords: Adaptive Industry; Applied Undergraduate; Specialty; Dynamic Adjustment Mechanism

Colleges and universities undertake the basic function of training talents needed by social and economic development. Over the past 70 years, China’s higher education has undergone several adjustments, and a large number of specialties have basically covered the areas needed by social and economic life. In the current economic new normal, technological innovation and industrial optimization and upgrading will inevitably affect the employment market and talent demand structure. From the perspective of the attributes of applied colleges and universities, their teaching and personnel training should follow the law of educational development, actively adapt to the industrial development, and make scientific and dynamic adjustment to meet the demand structure reform requirements brought by industrial development and upgrading.

1. The internal relationship between specialty and industrial development in applied universities

Specialty is an academic category divided according to the needs of social division of labor, reflecting the change of social demand for talents. Specialty and industry can and should become an organic unity of complementation, mutual promotion and mutual symbiosis. Different colleges and universities have different modes of specialty setting. On the one hand, the internal needs of school development and talent training objectives are basically coordinated with industrial development, and professional adjustment can better cultivate talents. On the other hand, applied universities, especially undergraduate colleges and universities will be affected by national regulation and control. If the government adjusts the personnel training mechanism of universities, it is bound to make certain changes in its specialty settings, so as to better connect with national policies.

2. Principles of dynamic adjustment of specialties in applied universities

2.1 Adapting to relevant social needs

One of the most basic goals of running a university is to cultivate high-quality talents for the society. The applied colleges and universities train applied and innovative talents to meet the needs of industrial development. Therefore, in terms of

dynamic adjustment of specialties, applied colleges and universities should follow the tenet of running a school in terms of specialty setting and dynamic adjustment. According to the needs of the society, the original majors should be increased or decreased in a timely manner, so as to set up characteristic majors that meet the needs of the university and social development, and better promote the development of higher education and social transformation.

2.2 Paying attention to the combination of industry and learning

The Internet, artificial intelligence, biomedicine and many other fields are undergoing great changes and development, which has also fostered a large number of emerging industries. In order to cultivate talents suitable for the needs of industrial development, applied universities should pay attention to the combination of production and learning. The cultivation of students can not only meet the requirements of learning professional theoretical knowledge, completing the accumulation of knowledge and experience, but also the ability to transfer knowledge and skills and apply knowledge to practice. For example, some colleges and universities set up the integration of industry and education (industry education integration class), which is aimed at the development needs of the industry, and explore the education mode. In addition, the “double qualified” training mode for students and teachers are formulated and launched by colleges and universities, so as to adhere to the principle of combining industry, learning and research, and promote the interaction between industry and learning for mutual development.

2.3 With forward-looking and adaptive vision

In the stage of deepening reform of China’s industrial economy, the development rate is probably faster than the speed of talent training in colleges and universities, and the demand for talents is also changing. However, from the perspective of schools, it takes a long time for personnel training cycle (schooling system), which is easy to cause the disconnection between talents and social needs. In the face of this situation, applied colleges and universities should forecast the prospects of relevant majors, adjust the existing majors to a certain extent, and set up new characteristic majors, so as to coordinate the teaching content with the needs of industrial development, show forward-looking and moderately ahead in the major and its dynamic adjustment mechanism, and cope with the lag of talent cultivation.

3. Preparation for dynamic adjustment mechanism of specialty in applied universities

3.1 Sufficient market research

Colleges and universities with greater autonomy in specialty setting should make full use of the regulation of the market and the supervision of the society. Before the professional adjustment, the school needs to fully adopt the opinions of relevant professional experts, conduct sufficient market research, and clarify the specific requirements of the society for talents, so as to formulate a more professional and reasonable talent adjustment mechanism.

3.2 Integrating related resources

In order to better improve the teaching ability of different majors, relevant colleges and universities should pay attention to the integration of teaching resources. Before the major dynamic adjustment, the school needs to improve its own infrastructure construction, at the same time, attract excellent teachers to work in the school, and establish a larger teacher reserve for improving and making full use of all aspects of school resources, so as to make the subsequent professional adjustment more scientific and effective, which will be more conducive to promoting the development of the school and improving the teaching level.

4. Specific measures for dynamic adjustment of majors in applied universities

4.1 Improving talent training mode

The international exchange and interaction of education is getting closer and closer. Many excellent educational ideas from abroad are constantly introduced into China, which has a great impact on the development of education in China. In this case, the relevant colleges and universities may as well base on their own actual situation, learn from foreign excellent teaching ideas, and combine teaching with students’ social practice activities. For example, taking “order class” and “industry teaching integration class” and other personnel training mechanisms, modular teaching is carried out, meanwhile, students are provided with practical opportunities. Adopting this mode can cultivate students’ ability of innovation and practice, provide more backbone and professionals for the society, and is more conducive to the development of the industry.

4.2 Modification and diagnosis of existing specialties

Specialty is the logical starting point for colleges and universities to serve the society. The change of supply and demand caused by industrial upgrading appears to be that the corresponding old majors of relevant colleges and universities can

no longer meet the needs of personnel training in the new era, and there is a phenomenon of disconnection with social development. Its essence is the construction content of the original specialty, and the curriculum system cannot be synchronized with the industrial development. In this regard, the school needs to adopt new technology or teaching philosophy to reform the existing major, so as to make it more adapt to the development needs of society and industry. Taking information technology as an example, it is necessary to adopt new calculation methods to replace the original backward methods, introduce relevant equipment, and improve the teaching content of the major for timely adjustments.

4.3 Establishing characteristic specialty

Applied universities play an important role in serving local economy and providing intellectual talents for regional industrial development. Different colleges and universities with different regions have different actual situations, so are the objectives and specifications of personnel training. Therefore, they should be based on their own actual situation, starting from the needs of regional social and industrial development, and promote the overall and local coordinated development. In personnel training, we should pay attention to practice and overall development of students, improve the teaching content and the reform of curriculum system, to improve the relevant measures. At the same time, it is more conducive to meet the needs of students and promote their better development by establishing the specialty in line with the characteristics of the school and setting up the movable type signboard.

4.4 Setting up wide caliber specialty

At present, there are many narrow caliber specialties in applied universities. Although this kind of major has strong pertinence in knowledge learning, it also has the disadvantages of limited knowledge, which makes the students' social adaptability and adaptability weak, and not conducive to promoting the development of society. In this regard, colleges and universities need to set up some wide caliber specialties with deep foundation based on their own actual situation, expand students' learning knowledge, and cultivate their work transfer ability in learning, so as to better broaden employment channels, improve their adaptability and flexibility, and better adapt to the needs of social development. From a long-term point of view, it is more conducive to improve the comprehensive quality and ability of students, and their long-term development.

5. Conclusion

With the deepening of supply side reform and upgrading of industrial structure, the supply and demand of talents in the labor market is also changing. In order to give full play to the functions of serving the society and industrial economic development, applied colleges and universities must pay close attention to the changes of industrial development and make dynamic adjustment of specialties in time. The adjustment should follow the basic principles, making preparations, actively investigate the market, and fully adopt the opinions of professional experts, so as to integrate the existing resources of the school, and reserve teachers. In terms of professional adjustment, we should base on the actual situation and seek truth from facts, establishing a talent training mechanism in line with their own development. According to the needs of industrial development, colleges and universities should transform the existing majors, establish new specialties according to the characteristics of the schools, and set up some wide caliber specialties, and movable type signboards, so as to better cultivate practical and innovative talents.

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