Education Reform and Development, 2025, Volume 7, Issue 11
https://ojs.bbwpublisher.com/index.php/ERD
Online ISSN: 2652-5372
Print ISSN: 2652-5364

Cultivating a Higher Education Talent Training Model Adapting to the Needs of Regional Economic Development

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Abstract: The cultivation of higher education talents is closely related to regional development. Adaptive talent training plays a key role in promoting regional industrial upgrading and facilitating coordinated and sustainable social development. Currently, there are problems such as the disconnection between talent training goals and industrial positioning, low matching degree between curriculum systems and actual needs, and insufficient effectiveness of school-enterprise collaborative education. To address these issues, it is necessary to construct a talent training framework linked with the regional economy through paths such as dynamically adjusting professional layout, strengthening the construction of "double-qualified" teachers' teams, and deepening industry-education integration and collaborative education.

Keywords: Regional economy; Higher education; Talent training

Online publication: December 15, 2025

1. Introduction

With the deepening of the diversification and differentiation of China's economy, higher education has become the main position for talent training. The talent education mechanism, adapting to local economic development, plays an increasingly important role in regional development. The emergence of new technologies and the upgrading of traditional industries have led to a continuous increase in demand for high-level professional talents, but there is still a great imbalance between the resources provided by higher education and the demand. Therefore, how to make higher education adapt to the trend of local economic development and cultivate professional talents with solid theoretical knowledge, practical ability, and strong creativity has become a common theme of educational reform and economic and social development. Based on this, this paper conducts an exploratory study on the role, current situation, causes, and countermeasures of talent training, aiming to provide methods for the positive interaction between the regional economy and higher education.

2. Significance of cultivating higher education talents, adapting to the needs of regional economic development

2.1. Promote the optimization and upgrading of the regional industrial structure

According to the actual needs of local economic development, enrich higher education resources and cultivate high-quality talents to provide core momentum for promoting local industrial upgrading [1]. To accurately meet the development needs of local leading industries and emerging industries, higher education must adjust majors and formulate reasonable talent training programs to cultivate industrial talents with rich professional knowledge, strong practical ability, and innovative ability for regional industrial development. After these talents enter the local industrial development system, they can play a key role in many links, such as technological research and development, production process optimization, and management innovation. They can not only promote the quality upgrading of traditional industries but also accelerate the development of new industries. Ultimately, it realizes the transformation and upgrading of regional industries from the low end to the high end of the value chain, establishes a modern industrial structure meeting local characteristics, and enhances the core competitiveness of regional industries [2].

2.2. Promote coordinated and sustainable development of the regional society

Cultivating higher education talents, adapting to the needs of regional economic development, plays an important role in promoting the balanced and sustainable development of the local economy and society. On the one hand, the aggregation of talents drives the development of local social undertakings such as technological innovation and cultural education, comprehensively improving the quality of local public services and the general quality of the public, and narrowing the gaps between urban and rural areas and industries; on the other hand, local talents are more likely to form a sense of identity and belonging to the region. They are more inclined to develop and serve the region for a long time, avoiding development obstacles caused by brain drain [3–5]. Local talents can deeply understand the local needs and problems, and are more willing to actively participate in local community management, ecological environment protection, and other work, creating favorable conditions for the sustained economic growth of the region based on social balance and green development.

3. Existing problems in cultivating higher education talents, adapting to the needs of regional economic development

3.1. Disconnection between talent training goals and regional industrial positioning

Higher education is prone to disconnect from the actual needs of regional economic development in terms of talent training goals. Many schools adopt the traditional discipline-oriented method when formulating training plans, focusing on the improvement and completeness of the systematic discipline knowledge content, without considering the local industrial structure and industry development status [6]. This unscientific goal setting leads to the knowledge structure and skill content of the trained talents no longer meeting the needs of the local mainstream and emerging industries. For example, some local governments emphasize the development of emerging industrial development, new energy development, ecological technology development, etc., while the corresponding curriculum goals set by schools still stay at the level of old production and application technologies, failing to timely change the technical concepts of industry development. In addition, some universities have not in-depth studied the local development strategy, resulting in their training goals lagging

behind industrial upgrading changes, thus leading to a "time lag" between the supply and demand of graduates, affecting the development of industries in this region, and also causing contradictions in the employment structure of college graduates [7].

3.2. Low matching degree between the curriculum system setting and actual industrial needs

The curriculum system is the core carrier of talent training, and the degree of matching with regional economic development needs directly reflects the quality of higher education [8]. Currently, the curriculum systems of some universities have problems, such as outdated and rigid teaching content and inflexible teaching structure. In terms of teaching content, it still focuses on traditional theories and basic concepts, lacking new content such as new technologies and processes, and new standards, resulting in students' learned knowledge being unable to meet the existing work requirements. In terms of curriculum structure, the proportion of compulsory courses is too high, the types of elective courses are few and weakly connected with industries, and students cannot establish personalized learning structures according to the requirements of local economic development [9]. In addition, the interdisciplinary integration of curriculum settings is insufficient. For the increasing demand for compound positions in the region, it is impossible to realize the integrated training of multi-disciplinary knowledge through the optimization of the curriculum system. Such a configured teaching curriculum makes students need to spend a lot of time receiving pre-job training after employment to complete work tasks, which will generate additional employment costs for enterprises and reduce the timeliness of university talent training [10].

3.3. Insufficient operational effectiveness of the school-enterprise collaborative education mechanism

Although school-enterprise joint training is an important means to realize the in-depth integration of higher education and regional economy, its specific effectiveness still has many deficiencies [11]. First, school-enterprise cooperation is still mainly in relatively shallow and single forms, generally adopting forms such as students' internships in enterprises and university professors inviting enterprise engineers to give lectures. However, there is a lack of in-depth joint talent training in aspects such as the formulation of students' talent training programs, curriculum settings, practical training, and scientific research; second, enterprises have low participation, regarding this cooperation as an additional task rather than an opportunity to obtain real benefits. Enterprises' professional technical forces and job needs are rarely effectively integrated into various links of talent training; third, there is a lack of medium and long-term cooperation mechanisms and interest distribution mechanisms between schools and enterprises. Differences in understanding of cooperation goals, responsibilities, resources, etc., affect the long-term operation of projects; fourth, the policy guidance and support from the government to promote the joint construction of schools and enterprises need to be strengthened. The lack of positive and effective incentives and protection measures cannot fully stimulate the enthusiasm of both parties, leading to difficulties in forming a strong connection in school-enterprise joint training, and failing to play a practical and important role in cultivating talents needed for regional economic development [12].

4. Countermeasures for cultivating higher education talents adapting to the needs of regional economic development

As China's regional economy has shown new trends of diversified and characteristic development, the special

function of higher education in talent supply determines that the adaptability of the applied higher education model to regional economic needs will directly determine and affect the specific implementation of regional economic industrial upgrading, innovation-driven, and high-quality development. Currently, phenomena such as the mismatch between the selection of higher education talents and the industrial structure, and the inconsistency between talent skills and social needs in the development of higher education in some regions urgently need to be fully resolved, and a talent training framework that responds to the regional economy should be constructed. The following suggestions will be put forward to more effectively give play to the role of higher education in supporting regional economic development around four main paths.

4.1. Dynamically adjust professional layout and construct a discipline system adapting to the regional industrial structure

A professional setting is the "first pass" for higher education to connect with regional economic needs, so a professional setting also needs to break the original disciplinary boundaries and form a dynamic adjustment mechanism based on the development trend of local industry [13]. First, at the university level, it is necessary to strengthen cooperation and exchanges with local governments and enterprises, regularly collect information related to local industrial talent needs, and accurately grasp the types and levels of talents in local industries, cutting-edge technology industries, and undeveloped industries; second, establish a reverse chain of "industrial development - talent training - professional setting." The main industries highlighted and prioritized in the local economic development strategy become one of the goals of university professional directions to avoid a blind professional setting and excessive similarity. For regions mainly relying on traditional industries, it is necessary to promote the modern transformation of traditional industries and the application of intelligent technologies, such as artificial intelligence, to form cross-border compound professional talents. For regions mainly with strategic new industries, it is necessary to accelerate the development of related industries such as artificial intelligence, pharmaceutical biology, clean energy, and new energy materials, and make preparations for talents in future technological innovation industries; for regions with special industries such as tourism health care and nursing industry, it is necessary to strengthen the integration between humanities, sociology, and applied disciplines to produce professional talents adapting to local cultural and industrial development needs; third, increase the intensity of interdisciplinary integration and collaborative integration of different disciplines and majors to achieve in-depth professionalization across borders. Generally speaking, high-level development often requires cross-industry innovative talents. Therefore, universities need to break the barriers between departments, encouraging people in various disciplinary fields to establish alliance-based interdisciplinary curriculum groups or mixed majors, such as "information technology and intelligent production," "environmental research and renewable energy," "economics and data analysis," to cultivate compound talents who can solve complex problems in specific industry fields and provide intellectual support for the cross-border integration of regional industries [14].

4.2. Strengthen the construction of "Double-qualified" teachers' teams and enhance the practical orientation of talent training

Teachers' theoretical knowledge and practical work experience have an important impact on students' growth. Therefore, to meet the needs of regional economic and social development, it is necessary to build a "double-qualified" teachers' team with good theoretical professional knowledge and practical work experience. First,

standardize the definition and training mechanism of "double-qualified" teachers, clarify specific requirements in terms of industry experience, scientific and technological research and development experience, and enterprise project practical experience, as assessment indicators for teacher recruitment or evaluation, and encourage teachers to actively engage in industry practice; second, broaden the resource channels for "double-qualified" educators. On the one hand, universities should establish a human resource exchange platform with local enterprises and scientific research institutes, transforming technical personnel or industry elites of these enterprises into part-time teachers or enterprise practice mentors of the university, bringing the latest technical trends, development trends, and practical projects into school courses to make up for the shortage of practical experience of university teachers; on the other hand, universities should also encourage teachers to conduct practical learning in enterprises, such as establishing teacher enterprise practice teaching bases, selecting some teachers to go deep into enterprises to participate in product research and development and technical tackling, so that they can update their knowledge structure and improve their practical ability in the process of practice.

In addition, they can also fund them to participate in industry enterprise qualification certification training to obtain professional qualification certificates corresponding to their majors and enhance the practicality of education; third, strengthen the continuous training and development of teachers' teams. Create a regular teacher learning mechanism, allowing them to participate in regional economic conferences and technological reform seminars to timely grasp the changing trends of regional economic development and the latest trends of technological development. Co-build personalized curriculum systems with enterprises, and provide targeted professional and technical skill improvement paths for teachers according to the development needs of local mainstream industrial technologies to ensure that teachers' teaching content can keep pace with the times. Adopt various paths such as "new knowledge learning, going out for exchange, and in-depth practice" to build a professional teacher' team that can meet the needs of regional industrial development and guide students' development [15].

4.3. Deepen industry-education integration and collaborative education and build a practical platform for talent supply and demand connection

Industry-education integration means the integration of production, teaching, research, and application. It is a teaching method combining theoretical training and production application, an effective way to solve the employment problem of college students, and an inevitable choice for higher education to serve regional economy. Universities should go beyond the previous educational boundaries, take the initiative to integrate into local enterprises, government units, and industry institutions, and jointly establish a university school-running system combining "production, teaching, research, and application". First, form a stable and long-term school-enterprise joint construction mechanism, such as jointly signing long-term cooperation agreements, establishing school-enterprise joint construction units such as industrial colleges, training bases, or research centers, to realize the optimal complementarity of educational resources and industrial resources. In the process of talent training, give full play to the main role of enterprises, and implement various talent training methods such as "order-based education", "modern apprenticeship system", and "practical training". Enterprises need to participate in the formulation of education plans, the planning of education projects, experimental education practice, student evaluation, etc., and customize training standards according to their own enterprise employment requirements. During their study at school, students can be exposed to a real employment environment and learn professional skills, so that students can quickly meet the enterprise's requirements for practitioners, thereby reducing the

"preparatory time" for talent training.

In addition, schools can also transform enterprises' processing and production tasks and research projects into students' practical activities and graduation thesis research directions, guiding students to learn to research and solve problems in practice. In addition, further promote the integration of production, teaching, and research, build and share innovation platforms, and carry out joint research on major scientific and technological problems encountered in regional economic development. On the one hand, it helps enterprises solve problems; on the other hand, it provides practical carriers for teachers and students to carry out scientific research experiments. Through the in-depth integration of production, teaching, and research, improve the pertinence and effectiveness of talent training, and at the same time make the scientific research achievements in universities take root and benefit local development, realizing the effective connection of the education chain, talent chain with the industrial chain and innovation chain, and building a virtuous cycle of "talent training → economic development → technological innovation."

5. Conclusion

In summary, cultivating college students adapting to regional economic development is a large-scale, systematic project, which is closely related to regional competitiveness and long-term social development. Plagued by problems such as the mismatch between talent training and industry needs, higher education needs to break through the limitations of fixed models and achieve synchronization with the regional economy through flexible professional reform, specialized teaching teams, and vocational part-time education. Only by integrating university classrooms into the overall situation of regional economic and social development and forming a virtuous cycle of "education → talents → industry → innovation and entrepreneurship" can higher education truly become the fundamental driving force for promoting high-quality development of the regional economy.

Funding

2024 'One College, One Feature' Teaching Reform Project of Geely University of China (Project No.: 2024JG30140)

Disclosure statement

The author declares no conflict of interest.

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