



Xizang Discussion on the demand of vocational education to adapt to regional economic development, the establishment of majors and the path of teaching reform

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SUMMARY: *Aiming at the specialty setting and teaching reform of vocational education in Xizang, this paper analyzes the regional economic pattern and the current situation of vocational education in Xizang, and proposes a new path to optimize specialty setting and teaching reform. First, by analyzing the regional economic structure and economic development trend of Xizang, the demand type and quantity of technical talents in various industries are clarified. The second is to systematically analyze the professional settings and teaching resources of Xizang's vocational education, and find out the main problems and root causes. The third is to construct a matching model between regional economy and vocational education talent demand, and evaluate the adaptability of various industries to the demand for technical talents. Fourthly, propose optimization strategies, including professional optimization, curriculum reform, strengthening practical training, and teacher development. The analysis results show that Xizang's characteristic agriculture, tourism and national handicrafts are the main pillar industries of the regional economy, but there are problems such as low modernization level and lack of infrastructure. The demand for high-level technical talents in emerging industries such as new energy and information technology has significantly increased. The vocational education in Xizang has some problems, such as the mismatch between the specialty setting and the regional industrial demand, the dispersion of resources, and the outdated curriculum. Insufficient professional settings related to emerging industries, and slow upgrading of traditional majors. Through the optimization of specialty setting and teaching reform, Xizang's vocational education can better meet the needs of regional economic development, train high-level technical personnel, and promote the rapid growth of regional economy.*

KEYWORDS: *Xizang; Vocational education; Regional economic development; Professional setting; reform in education; Talent demand*

1 Introduction

1.1 Research Background

Xizang is the core of China's frontier minority areas, and occupies a vital strategic position in the regional economic development blueprint of national construction. In recent years, Xizang's economy has developed rapidly with increasing policy supports from the central government. Specialty agriculture, tourism and ethnic handicrafts have become new pillar industries with rapid development in the region, which has played an active role in promoting regional

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economic growth [1, 2]. Faster economic growth has fueled a growing need for high-quality professionals, thus making vocational education a major way to cultivate talents and play an increasingly important role in regional economic development. Vocational education is able to adapt in a timely manner according to the regional industrial needs via curriculum design and pedagogical reforms, effectively promoting local economic growth with intellectual support and talent reserves [3]. At present, the development of vocational education in Xizang is at a critical stage in establishing a modern vocational education system. The "Decision of the State Council of the CPC Central Committee on Accelerating the Development of Modern Vocational Education" released by decree had clearly defined that China shall foster a modern and adaptive to market demand vocational education system in 20 years, which can be seen as both a policy guideline and development blueprint for Xizang's vocational education. Under this background, it is of great practical significance and important theoretical value to study the development strategy in Vocational Education programs as well as teaching reform in Xizang Province and further optimize it according to regional economic characteristics.

1.1.1 Problem Statement

The status of Xizang Vocational education: Some progress has also asked for hello (a skill that has spread throughout the whole country) It can be understood from this name Xizang vocational education in recent years, made some achievements, but facing many challenges and existence New courses on the issue of regional economy development practice cannot fully meet the reality [4]. The development of new vocational training programs at the regional level has also been promoted quite rapidly, and many local emerging industries have no corresponding specialties and it is difficult for their cultivation to keep up with industrial developments. Combined with the relatively lagging schooling conditions and difficulties in consolidation, substantial duplication of programs and waste of resources have been observed in the current vocational college offering process, causing a decline in efficiency related to vocational education [5]. Traditionalist educational constraints also inhibit vocational development, ensuring that institutions remain unable to innovate in curriculum design and teaching methodologies. These structural problems in the limited sustainability of Xizang vocational education, its negative feedback on local socioeconomic development. Therefore, it is quite urgent to conduct an in-depth analysis, and then further propose corresponding solutions for problems of curriculum design and teaching reform in Xizang vocational education.

1.1.2 Research Objectives

This study is designed to contribute theoretical foundations and practical suggestions for the promotion of vocational education by probing into professional program design and pedagogical reform strategies that meet local development requirements in Xizang region. The research mainly consists of three stages [6]: firstly, systematic analysis over the existing economic situation and the needs for talents in Xizang regions to make clear what role vocational education should play for regional economic support. Identifies the main problems in program design and teaching reforms of Xizang vocational education practice, identifying their root causes and impacts. Lastly, suggested optimization strategies such as responsive to emergent industry needs, upgrading legacy academic programs, augmenting experiential components in the training and faculty capacity development [7]. By doing so, we hope to provide scientific suggestions for the development of sustainable vocational education in Xizang and put it into actionable insights for comparable areas and to bring about coordinated growth between vocational education and the regional economy.

2 Literature review

2.1 Theoretical basis

The relationship between vocational education and regional economic development is still a hot research issue in educational economics. Vocational education is also believed by human capital theory to systematically increase the skill level of workers, and thus their productivity, directly leading to economic growth [8]. This view posits that education is an instrument not just for individual advancement, but also a necessary precondition of increasing regional economic competitiveness. Furthermore, there is also Schultz's investment theory from the perspective of education shows that the specific content of vocational education allows positive externalities to be given full play through regional industrial structure optimization and upgrading [9]. In terms of regional economic development, the role of technical education is mainly reflected in three aspects: providing technical and skilled personnel to local industries, promoting technological progress, and improving labor market flexibility Xizang. Vocational education is the basic entry point of higher learning and an effective guarantee for implementing national strategies to help regions out of poverty. Thus, the relationship between vocational education and regional economic development can also be an interactive model between two aspects: on one hand, attending to the cultivation of talents with local characteristics needed in local economy by vocational education to promote local growth; On the other hand, regional economic development has more and more higher demand for vocational education, which requires the program to be adjusted persistently in course arrangement and teaching content.

2.2 Domestic and international research progress

In recent years, scholars at home and abroad have carried out a lot of research on the regional economic development needs with vocational education. Chinese scholars' research on vocational education programs mainly focuses on the demand of the industry. For example, research shows that vocational education should be closely related to local pillar industries and dynamic adjustment mechanisms are required for program structures to meet social demand [10]. Similarly, studies also indicated that the vocational education in Xizang is lacking of program coverage and type completeness and service capacity due to own unique geographical environment and economic foundation with HTE [11]. Research from other countries focuses on the innovation of vocational education models and the perfection of practical teaching system. For example, the German "dual system" and Australian TAFE Framework give priority to school-enterprise cooperation, which can not only combine theory with practice but also improve students' employment opportunities to a great extent [12]. Although there have been a large number of studies at home and abroad, few have systematically analyzed how the vocational education in Xizang should be aligned with the characteristics (types) of regional economy or concerns primarily about its economic development. Especially in the context of new industries, the problems of optimal program design and teaching reform have not been fully analyzed.

2.3 Research gaps

In a word, through the literature review, it is known that scholars at home and abroad have already made great contributions to exploring the relationship between vocational education and regional economic development. However, there are still some problems in the previous research of this field; In Xizang. Current studies, then led to the first major problem: observed at a macro-level policy analysis study on one side and single-institution case studies on the

other in which limited us from wide multi-faceted prospect of holistic approach. Joining the reasons for program design and teaching reforms, Xizang has special regional economic features existing in the diversified talent demands brought by the specialized agriculture, tourism and ethnic handicraft industries; The overwhelming majority of researches do not take it into consideration [13]. Besides, there is a lack of research on the industrial driver paths where vocational education actuates the Xizang's "dual promotion," especially in the emerging fields such as new energy and information technology. This study intends to address these research gaps with a complete analysis on the present role of Xizang vocational education and its linkage with regional economic development. Promoting Xizang vocational education needs not only to renew the theoretical basis, but also to provide practical guidance according targeted and actionable strategies, optimizing program design, as well as improving teaching models (Wen et al).

3 Model description

1. Matching model between regional economy and vocational education talent demand. To analyze the matching degree of demand for vocational education talents in various industries of the regional economy, the following model can be constructed [14]:

$$M_i = \frac{N_i/S_i}{\sum_{j=1}^n (N_j/S_j)} \quad (1)$$

where, M_i represents the degree of talent demand adaptation in the i -th industry sector; S_i represents the economic output volume of the i -th industry sector (such as gross domestic product or added value); N_i refers to the number of technical and skilled talents absorbed by the i -th industry sector; n is the total number of industrial categories covered by the regional economy.

With the help of the accounting of the fitness level M_i of talent demand in various industries, it can be clear which majors closely fit the regional economic demand (that is, the M_i value is high) and which majors do not match the supply and demand (that is, the M_i value is low) in Xizang's vocational education system, thus providing a reference with data support for the optimization and adjustment of majors.

2. The collaborative index model of vocational education curriculum modules and industrial technology updates. To evaluate the synergy level between vocational education courses and industrial technology updates, the following index model can be constructed [15]:

$$I_{sync} = \frac{\sum_{j=1}^n \omega_k \cdot \text{Sim}(C_k, T_k)}{\sum_{j=1}^n \omega_k} \quad (2)$$

where, I_{sync} refers to the synchronous index used to measure the synergy between curriculum and industrial technology updates; m represents the number of course modules or the number of technical fields; ω_k represents the weight corresponding to the k th course module or technical field (this weight is set based on the importance of the industry); $\text{Sim}(C_k, T_k)$ is the degree of similarity between the content C_k included in the k -th course module and the corresponding industrial technology content T_k (this similarity can be calculated using text similarity algorithms or by inviting experts to score).

Through the calculation of I_{sync} , it is possible to evaluate the synchronization of Xizang's vocational education curriculum and technological upgrading of emerging industries (such as new energy industry and information technology industry). If the value of I_{sync} is low, it means that the course needs to accelerate its update speed in order to better adapt to the changes in industrial technology.

4 Xizang Analysis of regional economic development status and talent demand

4.1 Current situation of regional economic development in Tibet

4.1.1 Industrial structure analysis

Agriculture, tourism, and ethnic handicraft are three distinct economic sectors that lay the foundation for the industrial structure of Xizang and significantly promote regional economic development. Xizang specialty industry Xizang, the traditional advantage lies in agriculture and livestock, specialization expansion stable development has already started a certain scale, specializing in hot processing field appears growth especially fast. Recently, the total agricultural sector output value of Xizang has been basically growing stably and its promotion is concentrated on strengthening policy support and technological transformation of traditional industries [16]. During the same period, tourism, which is one of Xizang's strategic pillar industries, has seen even faster growth. The number of tourists, and the revenue generated by tourism as a result has now continued to show an upward trend year on year since well-developed transportation infrastructure network with improved service capability allowed the region to fulfill its demand [17]. Moreover, ethnic handicrafts inherit unique cultural connotations and economic value while preserving traditional culture in an innovative way. Items such as Tibetan carpet and Thangka paintings which are deeply appreciated within the country have now extended their shadow outside of Xizang, having gone abroad with their own colors injects new vitality to the economy in Xizang.

Even So, These Industries Have High Growth Prospects But There Are Still Structural Imbalances. Some areas still lag behind in modernization, with a backward agriculture sector and short industrial chains and value-added components. Tourism is highly seasonal; and the infrastructure has been lacking. Therefore, although the indigenous handicraft has a strong cultural appearance, it is limited by the scale of production and can not form industrial clusters with larger arteriovenous density. Hence, restructuring it as well as promoting coordinated development among divisions is the core target of high-quality economic growth according to the Xizang strategy [18].

4.1.2 Economic development trend

Driven by national policy support and market changes, the economy of Xizang enjoys a strong growth momentum with obvious industrial upgrading features. The construction of "Belt and Road" Initiative, Western Development Strategy and Targeted Poverty Alleviation Policy have opened up important opportunities for Xizang economic development. Relevant emerging sectors such as new energy, green food processing and digital economy are exploring a path to sustainable development according to their respective existing resource advantages. The application of solar and wind energy as clean forms of energy production have made significant advances in the meantime to reduce both carbon emissions, as well as an offset to alleviate a small measure of pressures related to traditional or conventional power plant deficiencies [19].

At the same time, Tibet's traditional industries have entered a new era of high-end and intelligent development driven by consumption upgrade and technological change. Example can be of shifting from extensive farming to intensive management is because of modern agricultural practices, as cited above. The tourism industry is using big data and artificial intelligence technology to improve service quality and visitor experience [20].

Going forward, economies in Xizang will be more geared towards sustainability and inclusion. In addition, with the policy guided, industrial restructuring will further deepen, both traditional industries and new industries are getting more integration. In addition, regional economic cooperation will become an important force for Xizang's development. For example, the Xizang regions are more likely to achieve a better position in the global value chains if they strengthen their economic and trade links with adjacent provinces and countries. Over all, the economies of Xizang pose at a crucial time of three major things: from high speed to quality development. On one hand, it increases the quality requirement of Xizang vocational education system and, on the other hand, it paves a way for follow-up curriculum design and teaching reform.

4.2 Demand for talents in regional economic development

4.2.1 Talent type demand

The demands for all kinds of talents have become more diversified as economies in various regions are developing. Tibet There is thus huge mismatch of the technical and skilled professionals and manager level in bulk which are more critical gap areas that require immediate attention. Key sector expertise is desperately needed in sectors as varied as specialty agriculture, tourism, and ethnic handicraft industries, plus a technical and skilled workforce anywhere. An instance of this is agriculture, where modern methods used in cropping, animal rearing and food processing exist. Traditional Agricultural Professionals as Industrial Upgrading Powerhouses Skilled agricultural technicians have been transformed into important players in industrial upgrading [3]. The tourism industry requires many professionals with special service skills such as a tour guide, hotel managers, and tourism planners. This means that a high amount of professional knowledge is required to hold these positions, as well as a solid range of practical tools and cross-cultural communication skills [7]. Moreover, to reinvigorate ethnic handicrafts requires a group of talents that not only have an informed knowledge of traditional craftsmanship but who also understand some novels design ideas so that they are able to satisfy consumers with high-level cultural and creative products.

And in terms of the ability of managers, Xizang surround development growing economies dimensionality and industrial structure is more and more complicated, business management, project management (article study) professional Managerial talents as well as public Administration Talents are all seriously deficient. New energy and information technology is a typical fledgling industrial, high-level management has become an urgent bottleneck restricting the development of the enterprise [10]. Moreover, government departments and non-governmental agencies need more managers who are able to make strategic plans without losing the ability to imagine a new method of filling the current social governance vacuum. It also reflects the needs of talents in multi-layered and a variety of vocations necessary for Xizang regional economic development, which results in high requirements about talent cultivation model from general vocation education.

4.2.2 Talent quantity demand

Based on the "14th Five-Year Plan" and medium-to-long-term industrial development goals of Xizang Autonomous Region, different types of professionals are needed in years to come. For

the first time in the fields of agricultural and animal husbandry industry to be staffed, with the widespread application of modern technology in agriculture and the industrial chain extension, including crop cultivation surgeon medicine class 50 thousand people (related crops yield increase, precision agriculture promotion elements). As the pillar industry driving the development of Xizang, tourism is of great importance for talent demand side. Preliminary forecasts showed that in the next seven years (by 2025), more than 80,000 qualified employees would be needed for functioning of the tourism sector in the region; they should include more than 30,000 tour guides, over 20,000 hotel managers and other staff servicing around a few thousand professional needs related to tourist agencies or destinations—tourism planners and marketing specialists. In addition, the development of ethnic handicrafts will involve more than 10000 professionals who understand traditional crafts and new design methods to support the interior growth and improved quality of industrial products;

The emerging industry, such as new energy and information technology, is growing rapidly and will stimulate more demand for high-level technical personnel. The Solar and Wind energy related sector alone may need more than 20,000 engineers and technical workforces whereas digital economy sectors are likely to consume nearly 10k highly skilled professionals like Data Analysts and Software Developers [9]. However, the supply side in terms of managerial talent should not be overlooked. Xizang has at least 15,000 middle- and senior- level managers to meet the demands of increasingly complex enterprises and social organizations in the next five years according to industrial development plans. In conclusion, the surge in talent demand brought about by Xizang's regional economic development is an important challenge for vocational education curriculum design and teaching reform, but also a precious opportunity to improve.

It is of inestimable value to carry out a forward-looking analysis of the economic evolution trend in Xizang at the talent demand level. It can not only effectively promote regional strategic planning from paper to practice, but also facilitate the more scientific and efficient allocation of various production factors such as labor, capital, and technology, injecting a continuous stream of power into industrial innovation and development. It can also play a key supporting role in maintaining social harmony and stability, enhancing government governance efficiency, and many other dimensions. More importantly, this forward-looking research and judgment is the core focus to break the inherent bottleneck of plateau economic development and lead Xizang's economy to a new journey of sustainable and high-quality growth. Table 1 below shows the demand forecast for various talents in the process of Xizang's regional economic development. The growth rate of personnel demand in different industry sectors by 2030 compared to 2025 is shown in the curve in Figure 1.

According to the data in Table 1 and Figure 1, from the overall data, the total demand of Xizang's regional economic development for all kinds of professionals will be 215000 in 2025, and will increase to 280000 by 2030, with a growth rate of 30.23%. This shows that in the future, Xizang's economic development will continue to enhance its ability to absorb talents, and the demand for talents will show a trend of rapid growth.

Analysis by industry sector shows that the demand for talent in the tourism industry is growing the most prominently. The demand for tourism service and management talents will be 80000 in 2025, increasing to 100000 by 2030, a growth of 25%; The number of tourism marketing and planning talents has increased from 5000 to 8000, with a growth rate of up to 60%. Xizang is rich in tourism resources. With the continuous expansion of the tourism market and the upgrading of tourism consumption, the demand for tourism professionals is becoming increasingly urgent. Especially, talents with innovative marketing and planning capabilities will become the key force to promote the high-quality development of tourism.

Table 1: The demand forecast of Xizang's regional economic development for talents

Industry Sector	Type of talent required	Demand quantity in 2025 (person)	Demand quantity in 2030 (person)
Agriculture and Animal Husbandry	Modern agricultural technology talents	50,000	60,000
Tourism	Tourism Service and Management Talents	80,000	100,000
	Tourism Marketing and Planning Talents	5,000	8,000
Ethnic handicrafts	Talents who combine traditional handicrafts with modern design	10,000	12,000
new energy industry	Talents in Solar and Wind Energy Engineering Technology	20,000	30,000
information-technology industry	Data analysis and software development talents	10,000	15,000
Enterprise Management and Public Management	Middle and senior management talents	15,000	20,000
Other emerging industries	High skilled technical workers	25,000	35,000
total	Various professional talents	215,000	280,000

The demand for talent in the new energy industry is also growing significantly. The number of technical talents in solar and wind energy engineering will increase from 20000 in 2025 to 30000 in 2030, a growth of 50%. Xizang is rich in solar and wind energy resources, and the development potential of new energy industry is huge. The demand for relevant engineering and technical personnel will continue to rise to meet the demand for industrial development and construction.

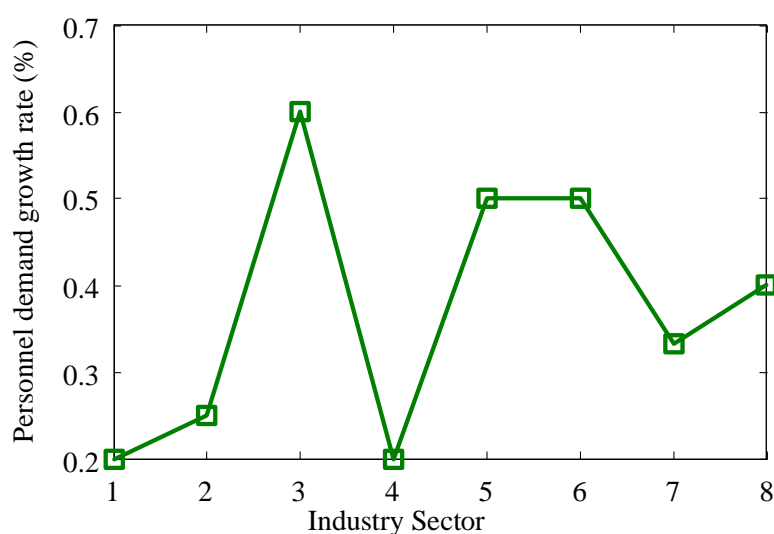


Figure 1: Growth rate of personnel demand by industry sector in 2030 compared to 2025

In the information technology industry, the demand for data analysis and software development talents has increased from 10000 to 15000, a 50% growth. In the digital era, the supporting role of information technology for economic development is increasingly prominent. Xizang is also actively promoting the construction of information technology, and the demand for information technology professionals is increasing, so as to improve the digital level and innovation ability of the industry.

In contrast, the demand for talent in agriculture and animal husbandry, ethnic handicrafts, enterprise management and public management, and other emerging industries has grown relatively steadily. The demand for agricultural and animal husbandry talents has increased by 20%, the demand for ethnic handicraft talents has increased by 20%, the demand for middle and senior management talents has increased by 33.33%, and the demand for high skilled technical workers has increased by 40%. While maintaining stable development, these industries also need to constantly inject fresh blood and improve the quality of talent to adapt to the new requirements of economic development.

To sum up, the demand for talents in Xizang's regional economic development is characterized by diversification and rapid growth. All industries should formulate targeted talent training and introduction strategies based on the talent demand forecast to provide a solid talent guarantee for the high-quality development of Xizang's economy.

5 Xizang Analysis of the status quo and problems of vocational education

5.1 Xizang The status quo of vocational education specialty setting

5.1.1 Professional distribution

Xizang Vocational education of Xizang has realized the overall functionality and distributed diversity owed to the professional, now there are still some problems in quantity and program covering range. At the same time, a study shows that over vocational institutions in Tibet basically hangs the traditional agricultural animal husbandry, ethnic handicraft production and leisure comforts such as tourism services, some characteristics of its economic structure. [1] The vocational staff of Xizang dominates, but limited number and scale make it unable to meet the requirements of local economy development alike school system aspect. More specifically, emerging industries such as new energy and information technology have been under-proposed — falling far short of the demands of industrial restructuring and economic transformation in Xizang. In addition, regional disparities in program distribution continue to exist between cities: In some regions, the educational level fails to synchronize with local industrial characteristics and hence resources invested in education are wasted. Although the vocational education in Xizang has been solid foundation, and still have a lot of room can be developed as well in extent or depth.

5.1.2 Key and characteristic majors

Xizang Vocational education has grown up with a number of key and distinctive specialties, which have made energy savings in the regional economic growth. For example, Xizang Vocational and Technical College actively participates in the establishment of ten major characteristic advantageous pillar industries before autonomous region, forming characteristics such as veterinary medicine, tourism management and ethnic traditional crafts. The above-mentioned specialties not only accentuating regional features of Xizang but with noteworthy employment competitiveness as well [3]. Moreover, the construction of regionally distinct

specialties has cultivated regional vocational colleges with local Tibetan Medicine and Thangka painting. In addition to maintaining the cultural heritage of ethnic groups, these programs are also important sources for provincial economic development [14]. Even specialties with somewhat better, and different results have an uphill struggle. In some cases, lack of proper faculty and outdated training equipment lead to low QoS of specialized programs. In addition, the industrial applicability of specialized training tended to be low resulting in a poor job market for graduates. Accordingly, as part of the effort to strive after professional programs improvement and meanwhile maintain its own uniqueness of vocational education in Tibet. This is still a crucial issue that requires to be addressed.

5.2 Problems existing in professional setting

5.2.1 The problem of professional and industrial convergence

Xizang Do not match the vocational education program and regional industrial needs means overall lack of support for economic development, is an important reason. According to research, the current xizang skill education curriculum has not yet matched with new industries and descending manufacturers. The training of specialized programs in new energy, informations and other emerging services are rare. For example, with the transformation and upgrading of Xizang's tourism hotel industry high quality diversification development trend, Xizang market to cultivate young talent in tourism planning and digital marketing. However, at present metal 3D printing direction professional graduate students still fewer and vocational colleges in China have less related program direction, the contradiction between supply demand of talent is more obvious. On top of that, existing programs tend to be slow, sometimes impossible old along with out-of-date course loads not able to maintain new technologies and solutions. Obviously, this poses challenges to graduates who are most likely unprepared for the same. Disconnects like these between professional education and industry needs not only remove vocational education's role as a tool to support regional economies but keep the students who are fed through it out of very good work.

5.2.2 Professional duplication and resource dispersion

There is a lot of irrelevant replication of programs from institutions itself with the Xizang vocational education space. This not only results in suboptimal allocation of educational resources but also hampers operations hastening a vicious cycle of operational losses and failure -- both academic and financial. Most municipal colleges have over-duplicated in tourism management and computer application programs, which schools inadequately invest for faculty development and practical training facilities as well result to missed opportunities of various academic offerings. In addition, there is no specific high-level planning and coordination mechanism for these programs, so they must be planned considering the ability of industry layout in China and market demand in various regions to form a serious regional homogenization. This kind of resource dispersion not only represents a waste of limited educational resources but also aggravates the chaotic competition among institutions to some extent affecting the overall development of vocational education level [15]. Thus, one of the most pressing affairs that Xizang vocational education needs to solve is elaborately organizing programs, constructing regional collaboration as well as avoiding overlapping investment and improving utilization of resources.

6 Xizang Optimization strategies of vocational education professional setting

6.1 Professional adjustment based on regional industrial demand

6.1.1 Connecting with emerging industries

The rapid growth of regional underdeveloped economies and new industrial sectors in Tibet has brought new requirements for the design of vocational education programs. In the process of rapid development, new energy, information technology and ecological conservation are becoming the highlights of Xizang's economic growth; with increasing scale economy demand for technical professionals [7]. Therefore, vocational colleges should actively follow the emerging Xizang industry trends, update its curriculum timely to meet the needs of the market demand for high-quality skilled workers. Take the new energy sector as an example, we can set up wind power generation and solar power utilization maintenance programs to nurture operations talents that get technologies installation debugging operation and maintenance. Second, Xizang has unique ecological advantages and programs, e.g., ecological monitoring and conservation, could be incorporated to provide intellectual support for green development. The above theoretical analysis can improve the flexibility of vocational education through practice, so as to promote the optimization and upgrading of regional economic structures.

6.1.2 Reforming traditional majors

Vocational education of Xizang is a traditional and indispensable part of the system, but it is still difficult for higher vocational schools to keep up with the industrial upgrade and market change. Where traditional agricultural programs are concerned, the old clunky curricula and practical training have largely remained in place from days of old; and so far ill-equipped to develop the deonized skills required for modern agricultural development. This necessitates upgrading traditional programs We can enhance and bring fresh new technologies and management concepts to these programs. For example, teaching new technologies such as smart agriculture and precision livestock breeding in curriculum with more practice can improve the proficiency of students in operation of modern agricultural equipment [6]. Innovation in traditional handcraft program: The fusion between Xizang particular ethnic culture and modern design ideas will form specialty programs with regional features. These reforms not only serve to increase traditional disciplines, they also fill regional economic development gaps efficiently.

6.2 Optimization of professional layout

6.2.1 Regional professional coordination development

The large spatial scale, the significant differences in levels of economic development and industrial structure among regions have resulted in waste of programs and resources among vocational colleges. In this regard, regional planning and coordinated support are needed to promote differentiated development models. In other words, cities need to plan their vocational education system as a whole from the industrial characteristics and developmental needs of the city. The province could focus on modern service industry programmes, with Lhasa, the capital of Xizang as its political and economic nub. Based on the extensive tourism resources in Nyingchi Prefecture, attention should be paid to tourism management programs [1]. And the inter-regional resource collaboration makes regional cycle local breaking balance conversion, so that return to vocational education can effectively support local economic growth.

6.2.2 Build professional groups

Strengthening the agglomeration effect of vocational education, part of which is a critical measure for focusing on pillar industries to build specialized clusters. Xizang has rich and special agricultural, animal husbandry, tourism and ethnic handicraft industries with high industrial chain characteristics and strong upstream downstream combinations [3]. As a result, vocational colleges need to combine appropriate resources to build professional clusters based on the core disciplines supported by supportive specialties. In terms of agricultural sector partitioning, by establishing a professional chain that ranges from planting, breeding, processing to products sales in several specialized agriculture sectors, it is possible to forward integrate actions through an integrated talent development system from field to fork. This cluster-based approach not only strengthens the penetration and competitiveness of vocational education but also optimizes regional industrial chain extension capabilities, which will lay a solid talent foundation for high-quality economic development in Xizang.

7 Xizang Exploring the path of vocational education and teaching reform

7.1 Curriculum system reform

7.1.1 Integration of regional economic characteristics

In the reform of regional vocational education curriculum systems, it is an important measure to innovate educational services for local communities. Xizang As the main border regions of China, these industries also have their own unique areas such as agriculture, animal husbandry, tourism and national characteristics handicraft industry to further develop. Embedding leverage of local economic knowledge in school-based curricula effectively enhances students' understanding of regional economies and simultaneously develops talents which can smoothly meet requirements from regional development.

Technical and skilled talents [18]. The ultimate goal of this initiative is met by having a curriculum that hones the necessary skills required for success. For example, as part of the animal husbandry and veterinary science program, a certain share of courses such as plateau ecological farming techniques and grassland conservation could be incorporated to better meet Xizang's need in transformation from traditional animal husbandry to modern one. To this end, the rapid development of Xizang tourism implies that education on Tibetan cultural heritage preservation and tourism service management could be established in colleges and universities as part of a general education curriculum to cultivate interdisciplinary professionals [20]. The specific model of curriculum development in this region not only has a deeper integration between vocational education and local economy, but also provides needs-based learning resources for students.

7.1.2 Optimize curriculum design

Xizang Improvement of the curriculum design Lies in: Changing the course structure based on industry needs, adding practical teaching links to improve students' professional ability and employability. At present, there is a phenomenon of emphasizing on theoretical courses and lacking in the necessary practical teaching; therefore, the development of student practice ability is influenced. As a result, the curriculum modules need to be revised with the regional industrial restructuring trends and they must be kept closely aligned with market requirements. This could look like practical courses in emerging energy fields such as solar and wind power

through cutting-edge new energy related programs. For the renovation of traditional agricultural and animal husbandry courses, smart farming technology and green production concept courses should be included [10]. Outmoded theoretical courses should be further streamlined and practical training components expanded to provide students with the opportunities to develop their professional competencies in authentic work environments. This approach is more responsive to regional economic needs for a high-quality technical workforce.

7.2 Strengthen practical teaching link

7.2.1 Innovation of school-enterprise cooperation mode

Joint School-enterprise efforts to strengthen practical teaching elements of the Xizang vocational education Chain This sort of innovation can create more static sources for internships and training, giving students more chances to work in real-life employment scenarios. At present, the cooperation model of school-enterprise is still relatively homogeneous, and the depth and breadth are not high in the stage of initial exploration of UAS colleges in Xizang. In this regard, we should take the initiative to learn from advanced experience in different places of mainland China and promote diversified school-enterprise cooperation. For example, it is possible to introduce the "factory-as-school" or "school-as-factory" models, which can be directly combined with corporate production workshops into educational institutions, or built campus training bases in enterprises to achieve a seamless education- Industry integration. Moreover, establishment of long-term cooperation agreements is useful to guarantee the operation of internship bases stably, as it can specify mutual rights and obligations. Such a model is not only good for the practice of students, but also conducive to enterprises to create more high-quality professionals, the final realization of win-win results.

7.2.2 Improvement of practical teaching quality

Improving practical teaching quality in Xizang vocational education is an important task for neoteric educational reform, contemplate from the standpoint of cultivating undergraduate 'problem solving ability, greater stress on management. At present, Xizang vocational education is in the state that management system is imperfect, and the practical teaching guide is incomplete which affects students' hands-on ability can't be effectively improved. The realization of "practicals teaching" is the establishment of practical teaching management system, scientific practice curriculum development, and enhancement of teaching process supervision and evaluation. For example, the adoption of an industry mentorship system and the invite of experts to support practical teaching are two ways that curriculum is adjusted to meet needs in reality [7]. Furthermore, there is an investment in building and updating the resources for teaching—ie the equipment, educational tools such as training machines and simulation software — than render a state-of-the-art learning environment. In addition, timely hosting and evaluation of practical teaching achievement exhibitions can also enhance students' enthusiasm, so as to improve the quality of education.

7.3 Faculty construction

7.3.1 Training of "dual-qualified" teachers

Xizang. The economy of vocational education teaches us that teaching reform as the foundation is nothing more than strategic, for there can be no fundamental teaching reform without a "dual-qualified" team (i.e. between practical and theoretical teachers). The current situation is that vocational colleges in Xizang generally lack personnel for teaching and practical teaching

evaluation, which to a certain extent affects the promotion of quality. This can be mitigated by Two fold measures from dispatch of teachers to corporate internships/ project based training to register practical industrial experience and recruiting expert technical individuals as part time faculty for strengthening the teaching team To ensure that your educators have the necessary skills and are also up-to-date with industry standards and trends, you should set up a recruitment training program complete with annual professional development programs. We will implement these measures and strive to establish a high-level dual-qualifications teaching team, which is an important prerequisite for the high-quality development of Xizang vocational education.

7.3.2 Improve the teacher incentive mechanism

Xizang vocational education goes hand in hand with improving teacher incentive mechanisms. That means creating incentives so that teachers get a higher, better-quality level of instruction. At present, stabilizing Xizang vocational college teachers meet repeatedly in the same "times", for example, a certain degree of incentive and lack of rewarding way to seriously affect some of the enthusiasm. Hence, comprehensive incentive systems need to be built (material + spiritual rewards). Material rewards can be presented in the forms of distinguished funds such as Teaching Achievement Awards, Specialized Outstanding Educator Grants for demonstrating achievements in both curriculum innovation and practical training abilities. Spiritual incentives can include professional title evaluations and promotions. Furthermore, important to cultivate a culture of support for participation in educational reform projects and the development of supportive teaching environments—both individually and as part of collaborative team building. Carrying out these steps will fully stimulate the enthusiasm of education workers, thereby promoting a common improvement in the quality of vocational education in Xizang.

8 Xizang Challenges and countermeasures of vocational education program setting and teaching reform

8.1 Challenges

8.1.1 Lack of educational resources

XizangOne of the key problems in the development of vocational education is its lack of educational resources, more obvious manifestation is less good talent mistake and teaching auxiliary fund. Because of its harsher natural environment and overall lower level economy, most Xizang vocational colleges are behind on basic infrastructure developments. Quality education is subjected to challenges like obsolete laboratory equipment and inadequate practical training bases. Weak foundation of vocational education system in the operation form, and always adopt backward experimental facilities make Xizang's vocational school fails to reach Ministry of Education requirement in practical teaching level so that affect efficiency and potential of development for business schools. Also, the lack of appropriations has increased this issue as well because it keeps higher education institutions from keeping their teaching materials up to date or using technology that supports more innovative forms of education. Success has been made in recent years for the scale and teaching force of Tibet's secondary vocational education, but the backward regional economy still fails to provide adequate resources overall, especially for remote regions which lack peripheral sources. 68Therefore, the optimization of educational resource allocation has become a very urgent issue for the development of vocational education in Tibet.

8.1.2 Traditional educational concepts are restrictive

Destruction in efficiency is tradition educational concept kept constrains for Xizang vocational education development, and it is a unreplace defying question. The vexed issue of long-held societal bias against vocational education, implicitly less than regular higher education, had been affecting student and family choices around careers thereby stalling curriculum design and pedagogical reforms. In addition, these traditional views have severely restricted the development of Xizang higher vocational education, on the one hand, it leads to several differences as vocational colleges are often ranked in university admission tier 5th or so far below undergraduate institutions that they were no longer competitive enough to attract good students. Establishment of VET, as the disadvantageous side in politics and policy construction since its traditional view against respect from all parties at different levels, sectors and society. Now this ideological barrier not only restricts its developmental space by introducing hidden disadvantages in curriculum redesign and teaching innovation but also poses systemic difficulties to the reform.

8.2 Solutions

8.2.1 Resource integration and support acquisition

Cut college: Xizang, the vocational education resources scarcity should have a "shrink benefit", as far as possible to optimize existing deployment. and more External funds Safeguards. Advance high-level planning to effectively organize the entire process of vocational education resources and do a good job in maximizing utilization. The distribution of vocational education is the priority, and in which construction should be paired with regional characteristics through a flexible adjustment mechanism to perfectly fit into the process of industrial / social development. For example, a city can install one public secondary vocational school and then develop new higher vocational colleges in places already possessing the equipment needed to prevent resources from being diluted. Third, government and society should actively support special funding for vocational education. Activity should not align only with regional economic structures but also be oriented towards increased engagement of corporate and social sector organizations in the development of vocational institutions. At the same time, through "targeted support programs" and other methods, the introduction of high-quality external education resources can complement local resource shortages, so that vocational education achieves sustainable development.

8.2.2 Concept change publicity and guidance

Vocational education was cramped by the confinement of traditional educational concepts, and so public consciousness campaigns, and social education projects were also necessary in order to change messages beneath society and opened encouraging reform-supportive environments. Our first step must be to redouble our efforts in terms of advertising on what vocational education brings to the regional economy and local employment scene. Vocational education is a discipline designed with the labor market in mind, and its underlying goal is to train skilled practitioners. Often, a ICO/Token that is Pro-Trust will use a media enables and community engagement to broadcast this. It argues that, second, policy so extensively needed reform will only be possible if wider societal attitudes can be shifted. For example, connecting regular universities with vocational colleges and setting up common enrollment for students entering professional technical education can break through the barriers of educational institutions and de-stigmatize vocational education. Finally, broadening a diversified education system to cover vocational and general education pathways with strengthened connections could provide

students with greater agency in choosing career paths compatible with their interests and abilities. By doing so, we may be able to loosen the deep-rooted constraints, and two aspects of vocational education in Xizang — curriculum construction and teaching methodology innovation will have more spaces and environments for development.

9 Conclusion

9.1 Research Summary

This research investigates professional development and pedagogical reforms within vocational education in Xizang — an area crucial to meeting regional economic demands. This study also shows that the construction of Xizang province should meet needs of local industrial development for school-entrepreneur cooperation about the running programs. It should cultivate new majors that are related to emerging industries and develop traditional disciplines in accordance with the pace of modernization, enhancing education-related support for industrial development while facilitating the innovation system creation from the aspect of engineering technology talents. Moreover, they believe that the improvement of quality of vocational education shall take measures such as reforming curriculum system, strengthening practical teaching. From the content of the curriculum, if the regional characteristics are integrated and combined with questions related to the economic reality in different regions, can effectively improve students' practical skills and employment capabilities. Second, it effectively supports educational reform does not belong to highly positive "dual home" teacher cultivation and incentive mechanisms. Theoretically, the findings provide theoretical basis for vocational educational development in Tibet which help to provide a roadmap for practical implementation.

9.2 Future Outlook

In the future, Xizang vocational education development planning department will make deeper and broader breakthroughs in improving the establishment of teaching system. The first step is to increase the coverage of the program to include new energy — information technology and other emerging industries, expand vocational education categories and China a more diverse program structure. Second, by deepening teaching reform and strengthening the fusion of practical education with school-enterprise cooperation and innovation in collaborative model, it will build long-term internship and education base; improve students' practice capabilities and professional skills. This evolution toward creating "dual-qualified" teachers will continue to support faculty development as well. By providing policy support and resource investment, we hope more high-quality talent will come to the vocational education army and inject new energy into teaching reform.

Conclusion in the future, the author believes that with the continuous improvement of vocational education programs and teaching reforms, Xizang will make positive progress in both regional economic development. On the one hand, the high-quality technical and skilled talents cultivated through vocational education can make up for the talent gap in local industries very well, which is a powerful support for industrial structure optimization and upgrading. Second, the full compatibility between vocational education and regional development in form of deep integration not only benefits the complementary allocation of educational resources to improve institutional efficiency but also nurtures an interaction model that cultivates both with zero loss between the two. To sum up, in the new era Xizang vocational education would play an even more important role in serving regional economy, which will promote Xizang-wing socio-economic construction high quality development.

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