

Research on the Construction of the Demonstration Vocational Training Base for Integrated Communication Business Operation and Maintenance

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Abstract

To promote the enhancement and empowerment of vocational education, deepen the connotation of school management, improve social service capabilities, and vigorously advance the integration of industry and education as well as school-enterprise cooperation, this paper aims to cultivate talents that meet the needs of the transformation and upgrading of the communication industry. It expounds the purpose and significance of constructing a demonstration vocational training base for integrated communication business operation and maintenance, analyzes the current development status and existing problems of the industry, demonstrates the necessity of base construction, clarifies the content and implementation approaches of the base construction, hoping to provide a reference for colleagues in the field.

Keywords

Integrated Business Operation and Maintenance, Staff Training, Base construction.

1. Introduction

Base Construction To implement the spirit of "Several Opinions on Deepening the Integration of Industry and Education" issued by the General Office of the State Council and the "Notice on Issuing the National Vocational Education Reform Implementation Plan" by the State Council, co-construction of staff training bases through school-enterprise cooperation is a major trend in the development of vocational and technical education. With the widespread adoption of fiber to the home, the advent of the 5G era, continuous updates to communication equipment, high-definition video, full coverage of WIFI networks, smart homes, and intelligent applications have become inevitable trends in future development for comprehensive information services in homes and businesses. Building a new team of communication maintenance engineers will be the cornerstone of future growth.

Communication technology is an important foundation of modern society's informatization, and the communication industry has always been one of the country's key pillar industries, making significant contributions to the development of the national economy. The "14th Five-Year" Vocational Skills Training Plan points out that during the 14th Five-Year period, it is necessary to carry out job skill enhancement training for enterprise employees vigorously. Encourage leading enterprises and large corporations to build staff training centers, conduct training for employees of small and micro enterprises upstream and downstream of the industrial chain, and improve the quality and efficiency of vocational skills training across the entire industry chain. The document issued by the General Office of the State Council on "Encouraging School-Enterprise Cooperation in 'Schools within Enterprises' and 'Enterprises within Schools'" also encourages schools and enterprises to jointly establish practice centers serving real production and research, product testing, process improvement, employee training, and other functions.

2. Problem Statement

Integrated communication business operation and maintenance encompass network operation and maintenance, fault handling, service support, monitoring, and exclusion, running operation support, etc. As global information technology advances rapidly, comprehensive information services for domestic and foreign families and governments, as well as HD video, WIFI full coverage, smart home, and office automation, have become commonplace and are expected to develop into future comprehensive information services. Despite the growing importance of integrated communication business operation and maintenance, its prospects are broad, there are still issues with a shortage of skilled personnel, low skill levels, and inadequate training systems. Although some enterprises have established dedicated operation and maintenance centers and training centers, many still face challenges due to a lack of operational experience. Additionally, traditional training methods have limitations in time and space constraints, such as face-to-face courses not being effective enough, and online training often failing to ensure quality. Furthermore, there are also issues with current training methods and means.

3. Necessity of Construction

3.1. Cultivate High-Quality Talent

There is an urgent need for a professional team of high-quality talent in integrated communication business operation and maintenance, as current personnel generally have low overall quality and require rapid improvement in both quantity and capability. Therefore, building a vocational training base will help cultivate a professional team of high-quality talent, meeting the needs of enterprise operations for business development.

3.2. Enhance Enterprise Competitiveness

Constructing a vocational training base can enhance core competitiveness and social service capabilities. With the rapid development of new-generation information technologies like 5G, integrated communication business has become an important part of modern society with broad market prospects and development space. Enterprises can maintain a competitive edge in the market by enhancing employee training and improving service quality.

3.3. Improve Service Levels

Integrated communication business covers various jobs such as telecommunication installation and maintenance, customer service specialists, marketing specialists, administrative managers, internal trainers, etc. These services require operators to possess comprehensive, professional knowledge, and skills, which can be enhanced through practical training at the demonstration base. This will strengthen the skill training and practical experience of operators, providing higher quality services to users.

4. Content of Construction

Conducting base construction will enhance corporate culture, promote employee values, establish career development channels for employees, develop new business areas for enterprises, promote enterprise digital transformation, drive benign cycle, and innovation, establish long-term talent stability mechanisms, push forward enterprise reform and innovation, promote corporate culture and core values, establish effective talent retention mechanisms, and enhance innovation ability. Collaboration between colleges and enterprises requires establishing organizational structures to form a technical team, implementing

standardized construction according to industry standards, and conducting market research to draft a training base construction plan. Modern communication classrooms, innovative application rooms, teaching practice rooms, and optical cable equipment teaching laboratories should be constructed.

4.1. Build a Smart Home Talent Empowerment Platform

Create systematic, standardized, and sustainable training systems for smart home engineers, smart home service engineers, customer service engineers, comprehensive maintenance technicians, and internal trainers for smart home engineers, marketing specialists, administrative managers, and comprehensive maintenance personnel.

4.2. Create a Business Collaboration Center for Displaying Corporate Innovation Achievements

Provide customers with smart home advantageous products, high-speed networks, standardized services, and efficient workflow display windows to enhance brand awareness and customer perception.

4.3. Build a School-Enterprise Collaborative Innovation Center

Promote the organic integration of intelligent home industry chains, innovation chains, talent chains, education chains, and talent chains, facilitating the seamless connection of smart home industry chains, innovation chains, talent chains, education chains, and talent chains in the Leshan communication market.

4.4. Establish a Joined School-Enterprise Specialized and Part-time Training Leadership Team

Collaborate with China Telecom Leshan Company, Leshan Vocational and Technical College, and Laibin Vocational and Technical College to jointly train new types of communication maintenance talents in Western Sichuan. Form a multi-party collaborative training leadership mechanism to ensure reasonable allocation of personnel configuration.

5. Implementation Approach

5.1. Establish a Multi-Party Collaborative Training Mechanism

China Telecom Leshan Company, Laixin Vocational and Technical College, and Laibin Vocational and Technical College will collaborate to jointly cultivate new types of communication maintenance talents in Western Sichuan. Each party relies on its resource advantages to collectively create a truly meaningful communication maintenance talent training system.

5.2. Conduct Online and Offline Training Modes

Given that the traditional face-to-face training mode cannot meet the rapid development needs of information technology requirements, it will adopt a combination of online and offline training modes. Online training facilitates employees to learn anytime and anywhere; offline training allows practitioners to gain a deeper understanding of actual operations and processes through practical operations. In addition, we will collaborate with telecommunication companies and equipment manufacturers to jointly establish practical scenarios for testing and training, allowing employees to gain more authentic practical opportunities in a safe and real environment, ensuring the quality and effectiveness of practical operations.

5.3. Strengthen Practical Operation Training

To improve employees' practical abilities, set aside practical operation sessions in the training program. Collaborate with telecommunication companies and equipment manufacturers to establish practical scenarios for testing and training to give employees more authentic practical opportunities in a safe and real environment, ensuring the quality and effectiveness of practical operations.

5.4. Increase Course Targeting

Develop practical curriculum systems tailored for positions such as telecommunication installation and maintenance engineers, customer service engineers, marketing specialists, administrative managers, comprehensive maintenance personnel, etc. Meeting employee capacity needs for job duties by formulating practical curriculum systems suitable for different levels of employees. Additionally, incorporate new generation information technologies such as 5G, big data, artificial intelligence, Internet of Things, etc., enabling employees to understand and master cutting-edge technologies. For different levels of employees, tailor training content covering basics to advanced learning opportunities such as mobile communication engineering budgeting and multiple aspects of mobile communication engineering optimization for beginners to provide foundational learning opportunities while offering advanced learning opportunities and practical experiences for those with experience.

5.5. Establish a Training Evaluation System

Evaluating the construction and operation of the base involves complex factors considering various factors such as hardware facilities, software systems, faculty resources, training course settings, teaching practices, training environments, practical workshops, etc. Establishing an evaluation index system such as questionnaire surveys, expert reviews, course design assessments, site inspections, etc. Using different evaluation tools and methods together with comprehensive evaluations can obtain a complete understanding of the base's construction and operational status from multiple perspectives providing the basis for optimization and improvement suggestions for the base's construction and operation.

6. Conclusion

In summary, the construction of a demonstration training base for comprehensive telecommunications business operations aims to deepen the integration of industry and education and school-enterprise cooperation. It is designed to cultivate technical and skilled talents that meet the needs of the telecommunications industry, support the transformation and upgrading of enterprises, and serve the high-quality development and innovation-driven growth of the country. Additionally, the base can provide technical consultation and services to enterprises, enhancing their core competitiveness.

Fund

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