Comprehensive High Schools as a Key Approach to Promoting Academic-Vocational Integration in County-Level Secondary Education: Based on Policy Implementation and Educational Reform Perspectives

Yi Silin, Xishui County Secondary Vocational School

Abstract

As a new model integrating general and vocational education, comprehensive high schools represent a key pathway for addressing the developmental challenges faced by county-level secondary vocational schools and advancing the integration of academic and vocational education. This paper analyzes the definition and connotation of comprehensive high schools and examines the practical issues confronting county-level vocational schools in terms of resources, social recognition, and curriculum design. It argues for the significance of academic-vocational integration in promoting educational equity, talent cultivation, and social development, and proposes an implementation framework centered on comprehensive high schools. The study finds that through mechanisms such as curriculum integration, student record interoperability, and faculty sharing, comprehensive high schools can effectively break down barriers between academic and vocational tracks, promote balanced regional educational development, and provide high-quality talent support for building a skills-based society.

Keywords： Comprehensive high school; county-level secondary vocational school; academic-vocational integration; educational equity; talent cultivation model

1. Introduction

1.1 Literature Review

The integration of vocational and general education has become a common trend in global education reform. Scholars both in China and abroad have extensively explored this topic. Grubb (1995) argued that integrating vocational and academic education is a key approach to enhancing educational equity. The OECD (2020) emphasized that a skills-based society requires diversified talent cultivation models. Chinese scholars such as Shi Weiping (2016) and Xu Guoqing (2020) have noted that academic-vocational integration must be achieved through institutional innovations such as curriculum recognition and student record interoperability. However, existing studies have paid insufficient attention to the practical challenges faced by county-level secondary vocational schools, particularly in terms of resource allocation and social recognition.

1.2 Research Focus

This study focuses on county-level secondary vocational schools and explores the feasibility of comprehensive high schools as a core vehicle for academic-vocational integration. The research covers the current status, challenges, and reform pathways of over 4,300 county-level vocational schools across China.

1.3 Research Objectives

By analyzing the definition of comprehensive high schools, the developmental challenges of county-level vocational schools, and the societal value of academic-vocational integration, this study proposes an implementation pathway centered on comprehensive high schools. The goal is to dismantle the barriers between academic and vocational education, promote balanced educational development, and provide both theoretical and practical references for building a skills-based society.

2. Main Text

2.1 Research Methods

2.1.1 Definition of Comprehensive High Schools

A comprehensive high school is an institutional model that integrates the academic curriculum of general high schools with the technical training of vocational schools. Its core lies in the principle of academic-vocational integration. This model includes:

Curriculum Integration

A modular curriculum structure consisting of general education, vocational skills, and specialty development. Students can choose between academic and technical pathways, with mutual credit recognition enabling flexible transitions.

Dual-Track Student Record Management

Implementation of a "dual enrollment" system, where students register under either general or vocational tracks upon admission and are allowed to switch based on academic performance and personal interest. For example, Qingyang Comprehensive High School in Chengdu offers three pathway adjustment opportunities.

Dual Pathways for Further Education and Employment

Upon graduation, students may choose to take the general college entrance examination or the vocational track entrance exam, thereby breaking the single-track system and achieving the goal of “multiple paths to success.”The essence of comprehensive high schools lies in providing personalized educational pathways through institutional innovation and integrated resources, while meeting the growing demand for skilled technical professionals in society.

2.1.2 Current Status and Challenges of County-Level Vocational Schools

School Quantity and Coverage

As of 2022, there were approximately 7,200 secondary vocational schools (including

technical schools) in China, with county-level institutions accounting for over 60% (around 4,300 schools), covering 95% of county-level administrative regions and serving as the backbone of local skills training.

Student Demographics

County-level vocational schools enrolled approximately 8 million students in 2022, representing 55% of the national total. The majority came from rural households (around 75%), with over 30% from economically disadvantaged backgrounds (Data Source: 2022 National Report on Secondary Vocational School Student Development, Ministry of Education).

Program Offerings and Industry Alignment

Most programs remain concentrated in traditional fields such as mechanical engineering, electronics, early childhood education, nursing, and computer applications (over 70%). Programs closely aligned with local industries—like modern agriculture, rural tourism, and e-commerce logistics—account for less than 15%, indicating a significant misalignment with regional economic needs.

Teaching Workforce

There are approximately 450,000 full-time teachers in county-level vocational schools, with a student-teacher ratio of 18.5:1—slightly below the national standard (18:1). "Dual-qualified" teachers (those with both teaching and industry experience) make up only 32%, below the national vocational average of 40% (2022 China Vocational Education Quality Annual Report).

Facilities and Funding

Average per-student instructional equipment value stands at 8,500 RMB—only 65% of that in urban vocational schools (approx. 13,000 RMB). Funding disparities are evident: eastern counties receive about 12,000 RMB per student annually, while central and western regions fall below 8,000 RMB, with some underdeveloped areas

dropping below 5,000 RMB.

Graduation Outcomes

The initial employment rate for county-level vocational graduates is about 93%, but the rate of employment in relevant fields is only 58%. Average monthly income lags behind that of urban counterparts (3,000 RMB vs. 4,000 RMB). Although the percentage of graduates entering higher vocational colleges reached 35% in 2022, it still falls short of the national average (42%).

2.2 Research Findings

Inadequate Funding Limits Development

Weak fiscal capacity restricts equipment upgrades and infrastructure improvement, with some schools still using outdated equipment over a decade old, thereby undermining practical training and innovation capacity.

Need for Improvement in Teaching Staff Quality

The workforce is aging (over 40% of teachers are above 45), and there is a lack of teachers with industry experience. Emerging fields like AI and renewable energy face teacher shortages exceeding 50%, limiting the relevance of curricula to market needs.

Misalignment Between Programs and Local Industry

Many schools follow national trends by offering “popular” programs (e.g., computing, accounting) without local adaptation, resulting in poor alignment with county-specific industries such as agri-processing or intangible cultural heritage, leading to inefficient resource use.

Low Social Recognition

County families tend to favor general education; only 38% of junior high graduates choose vocational education (versus 45% in urban areas). Some schools struggle with enrollment, operating at just 70% of planned capacity.

Superficial School-Enterprise Partnerships

Only 20% of schools have stable industry-education integration bases; most partnerships remain at the agreement level, lacking substantial practical training opportunities for students.

2.3 Analysis and Discussion

2.3.1 The Significance of Academic-Vocational Integration

Promoting Educational Equity and Social Mobility

Breaking Educational Stratification: Integration dismantles the binary structure between general and vocational education, providing students with diverse and interest-based choices.

Widening Upward Mobility Channels: Students can navigate between systems as needed, thereby expanding their development trajectories and contributing to social mobility.

Meeting Diverse Talent Demands

Cultivating Interdisciplinary Talent: Integration nurtures individuals with both theoretical and practical competencies to support industrial transformation.

Enhancing Quality and Attractiveness: Resource sharing and complementary strengths raise the quality and appeal of vocational education.

Relieving Educational Anxiety and Overcompetition

Counteracting Credentialism: By promoting the notion that “everyone can succeed,” integration challenges the overemphasis on academic credentials.

Creating a Diverse Evaluation System: Moving away from test-centric evaluation, integration focuses on holistic student development.

Optimizing Educational Resource Allocation

Improving Efficiency: Shared platforms avoid redundant investment.

Fostering Industry-Education Synergy: Closer ties with industry boost the relevance and vitality of education.

2.3.2 Implementation Pathways for Comprehensive High Schools

Institutional Level

Policy Design: Formulate national guidelines to define the mission, goals, curriculum, and evaluation system for comprehensive high schools.

Categorized Management: Adopt differentiated policies to support schools at different development stages.

Funding Assurance: Establish stable financial mechanisms.

Curriculum Reform

Optimized Structure: Combine foundational, specialized, and enrichment courses.

Localized Content: Develop region-specific and interest-driven curriculum offerings.

Integrated Teaching: Explore cross-disciplinary and project-based learning approaches.

Evaluation Innovation

Multiple Dimensions: Include academic performance, comprehensive qualities, and vocational skill certifications.

Process-Oriented Evaluation: Track learning engagement and project participation.

Application of Results: Use evaluations to inform further education and career guidance.

Operational Level

Faculty Development: Recruit professionals with practical experience, conduct ongoing teacher training, and implement incentive structures.

Industry Partnerships: Develop long-term collaborations with enterprises for

co-developing curricula and training platforms.

Digital Infrastructure: Build smart campuses and support blended learning models.

Cultural and Societal Support

Public Awareness Campaigns: Enhance societal recognition of comprehensive high schools.

Parent-School Collaboration: Improve family engagement and understanding of educational goals.

Resource Mobilization: Seek government and societal support, including evaluation mechanisms for social feedback.

3. Conclusion

As a transformative strategy for county-level vocational schools, comprehensive high schools promote institutional innovation and resource integration to overcome the limitations of the traditional bifurcated education model. Their successful implementation depends on coordinated policy support, industry-education cooperation, and a shift in societal perceptions. Looking forward, county-level vocational schools should actively embrace the comprehensive high school reform to contribute meaningfully to the construction of a skills-based society.

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