

# Exploration of the Quality Education and Professional Knowledge Integration Education Model of Online and Offline in Universities: Taking Talent Training in Industrial Colleges as an Example

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**Abstract:** Cultivating well-rounded talents with moral, intellectual, physical, aesthetic, and labor skills is currently the core task of universities. The quality education and professional education of college students should run through the entire process of university, and the internship period of students is the weak link in quality education. Therefore, this article takes the practical education process of industrial colleges in universities as an example, and explores the "dual hybrid" model of quality education and professional knowledge education through online and offline methods. It explores various teaching management channels in the process of school enterprise collaborative education, providing theoretical suggestions and references for talent cultivation in industrial colleges in universities.

**Keywords:** Industrial College; Practical teaching; Online and Offline; Quality and Professional Education

## 1. Introduction

Quality education work runs through various development undertakings in China and is an indispensable key link in the development of China's education industry[1]. With the implementation of the important spirit of the national important conference, the work of quality education has received unprecedented attention. Strengthening the quality education work in universities is to enhance the main position of classroom quality education in educating students, pay attention to integrating quality education into the entire teaching process, and implement teaching and educating students through multiple channels in classroom teaching [2-5]. Actively

promoting the reform of curriculum quality education is a requirement of the development of the times and a manifestation of educational progress. In recent years, industrial colleges have gradually entered the public eye and become an important window for universities to connect with society, industries, and enterprises for collaborative education. In 2020, the Office of the Ministry of Education and the Office of the Ministry of Industry and Information Technology issued a notice on the "Guidelines for the Construction of Modern Industrial Colleges (Trial)". The guidelines pointed out that the construction of industrial colleges should adhere to the integration of industry and education, organically combine practical training and internship with enterprise service technology innovation functions, promote the integration of industry and education, science and education, and create an innovative platform for talent cultivation that integrates production, learning, and research. Zhongkai Information College of Huizhou University, as the second batch of demonstration industrial colleges in Guangdong Province, serves as a multi-party collaborative education base for "school, government, industry, and enterprise", relying on a collaborative platform including 50 governing units such as TCL Group, Desai Group, and Huayang Group, and is an experimental area for talent cultivation model reform.

Professional internship and practical teaching is a compulsory course for college students, and it is the most crucial link to connect the last mile from school to society. Professional internship practical teaching is an important practical teaching process for college students to comprehensively apply knowledge after completing the study of professional basic

courses and professional courses. It occupies an important position in the practical teaching system. During the internship practice teaching stage, students have basically completed various majors and general courses. It is difficult to popularize various quality education and cultural activities on campus, and they have been studying in various internship units for a long time, showing characteristics such as inconsistent positions, scattered locations, differences in enterprise management systems and corporate culture. This has made the implementation of quality education more difficult and has become a weak link in the quality education of college students, Especially in the context of the reform of talent cultivation models in industrial colleges, compared to traditional internships, the time for students to practice teaching in internship positions has increased. Therefore, it is urgent to effectively track and manage the process and provide quality education for students.

In the context of vigorously developing industrial colleges in various universities, exploring how to integrate quality education with professional knowledge education through a combination of online and offline methods in internship practice is an important issue that urgently needs to be solved. This article attempts to explore the integration of quality education and professional knowledge education into practical internship teaching in industrial colleges through a hybrid approach of online and offline, which is of great significance for improving the effectiveness of talent cultivation in industrial colleges.

## **2. The Importance of Integrating Quality Education with Professional Knowledge Education**

In 2020, the Chinese Ministry of Education issued a notice on the "Guidelines for the Construction of Curriculum Quality Education in Higher Education Institutions", which pointed out the need to integrate quality education into the entire process of university education, comprehensively promote the construction of curriculum quality education in universities, play the role of curriculum education and classroom education, and cultivate high-quality talents with comprehensive development in morality, intelligence, physical fitness, aesthetics, and

labor. With the popularization of higher education, the number of university admissions continues to increase, and the quality of students varies. If we only focus on teaching basic knowledge and neglect quality education and value guidance, we cannot achieve the fundamental goal of cultivating morality and talents. Especially during the internship practice period in universities, it is not only a weak link in student quality education, but also a key stage in cultivating professional ethics. Therefore, integrating quality education with professional knowledge education and integrating the concept of curriculum quality education into every stage of university education not only echoes the requirements stipulated in the outline, but also is a key means to achieve high-quality talent cultivation.

## **3. The Current Situation of quality Education in Practical Teaching in Industrial Colleges of Universities**

### **3.1 Development Characteristics and Stage Issues of Industrial Colleges**

As a platform for innovation and development in universities, although the Industrial College integrates multiple resources for collaborative education and proposes scientifically feasible implementation plans, it still faces many practical problems in the actual operation process, and the implementation of each link is still under continuous exploration and exploration. Taking the "3+1" educational model of Zhongkai Information College of Huizhou University as an example, the college has unique advantages. Students receive general and professional education at the main campus in the first three years, and are jointly trained by the school and enterprises in the last year. Through a complete year of professional and technical practice, joint guidance from school and enterprise mentors for graduation design, cutting-edge technology training, etc., students have strengthened their practical operation ability and improved their labor literacy, improved their social skills and independent survival ability. After graduation, students can shorten their learning of industrial knowledge and quickly bring economic benefits to enterprises.

In the early stages of the development of the Industrial College, there is still significant

room for improvement in terms of the comprehensiveness of practical education, mobilizing the enthusiasm of mentors from both schools and enterprises, and the selectivity of practical processes and content. A sound education system has not yet been established, and a sustainable standardized education model is still unclear, with unclear educational synergy. In addition, due to limitations in the institutional mechanisms of universities, most industrial colleges do not have independent legal entities, resulting in low flexibility and work efficiency in promoting innovation platform construction.

### **3.2 Reduction of the Scope of Quality Education Activities**

Carrying out diverse campus cultural activities is an important means to promote quality education for college students. In addition to participating in regular classroom teaching, university students can also freely participate in various cultural and sports activities, academic lectures, conferences, etc. organized by the school, while receiving professional knowledge education and ensuring synchronous quality education. The reform of talent cultivation in the Industrial College has broken through the limitations of traditional practical education processes, further increasing the length of practical training for students, and effectively promoting the cultivation of applied talents by combining theoretical knowledge with practical skills. However, from another perspective, students have long been engaged in practical training in enterprise positions, and factors such as uneven distribution of various positions and regions, differences in enterprise training methods and management systems, have become weak links in student quality education. Quality education largely relies on students' subjective choices, and the coverage of quality education has significantly decreased.

### **3.3 Insufficient Feedback on Teaching Process Tracking**

Timely and effective teaching feedback and evaluation are key factors in promoting teaching improvement. Due to long-term internship positions and practical training activities, not only are school teachers unable to track and evaluate student learning in a

timely and timely manner, but enterprise mentors also cannot provide comprehensive and effective tracking and feedback due to job pressure, evaluation ability, experience level, and other uneven levels. On the other hand, the evaluation feedback of college students in internship practice often only focuses on job skills and work abilities, lacking evaluation feedback on student quality education performance and moral level. In addition, there is a focus on outcome feedback but a lack of process feedback and evaluation. Schools usually conduct a single evaluation of students' internship and training performance after the entire cycle, and there is no clear tracking and feedback on their usual ideological performance and professional ethics.

### **3.4 Differences in School Enterprise Training Concepts**

In the development of collaborative education between schools and enterprises, both parties play different roles and have different ideas for talent cultivation. On the school side, emphasis is placed on cultivating students' ability to connect theory with practice, enhance practical skills, promote labor education and professional ethics, and other comprehensive starting points. However, for most enterprises, the pursuit of interests and benefits comes first, emphasizing skills, production, and neglecting quality education. That is, only professional knowledge is taught, lacking quality education. Although corporate culture and management systems can to some extent make up for this deficiency, However, for many enterprises with uneven management levels, development stages, and different enterprise attributes, it is obvious that they do not match the standards and requirements of talent cultivation. In addition, corporate mentors who have been on the front line of their positions for a long time lack experience and effective means of providing quality education and moral guidance to students.

## **4. Implementation Path of "Online And Offline" School Enterprise Collaborative Education in the Industrial College**

The online and offline teaching mode is a hybrid teaching mode that combines offline teaching classrooms with online network teaching [6-8]. Universities and enterprises collaborate and share resources to promote

mutual benefit and win-win outcomes. It is a collaborative education mode between universities and enterprises for talent cultivation reform in the construction of industrial colleges[9-11]. Based on the problems in the current practical training process of traditional practical teaching in universities, namely the industrial colleges, In order to promote the scientific and effective improvement of educational effectiveness in the Industrial College, and to promote the integration of quality education and professional knowledge education, starting from the actual situation, combined with the construction of collaborative mechanisms, the exploration of quality education resources, and teaching evaluation feedback, a dual hybrid model of online and offline and school enterprise collaboration has been proposed.

#### **4.1 Building a Collaborative Mechanism between Schools and Enterprises**

One is to clarify the responsibilities of collaborative education between schools and enterprises, with a focus on clarifying the division of tasks and responsibilities between the two parties. The school's participation in teaching management includes guiding teachers, counselors, class teachers, etc. The main tasks are to carry out theoretical knowledge teaching, quality education, value guidance, etc. Enterprises participating in management teaching include administrative management personnel, enterprise mentors, etc., mainly responsible for skill teaching, daily management, professional values, etc. in frontline practical positions. The teaching and management between schools and enterprises have different focuses, but both cover the aspect of quality education. The second is to improve the coordination and connection between online and offline. The online implementation process includes the existing tracking management backend and established forms such as WeChat, QQ, and online meetings. The offline implementation process includes theoretical classes conducted by school teachers, on-site guidance to enterprises, various offline meetings, as well as daily guidance and teaching from enterprise mentors. The school is responsible for student app management, online teaching platform tracking, offline theory and quality education. On the enterprise side, it is mainly responsible

for student offline frontline internship teaching. At the same time, it participates in the evaluation and tracking feedback of school teachers online, forming a "five in one" online and offline coordinated education dual mixed model with school mentors, counselors, enterprise mentors, internship group leaders, and students themselves.

#### **4.2 Improve Quality Education and Professional Integration Education**

The Opinion on Strengthening and Improving the Quality Education Work in Higher Education Institutions under the New Situation in China proposes that talent cultivation should adhere to the principle of all-round education for all staff, throughout the entire process. In the internship and practical teaching of the Industrial College, various resources are continuously integrated, and targeted education is implemented at specific stages by vigorously leveraging the roles of enterprise mentors, enterprise management personnel, school guidance teachers, counselors, and class teachers. School mentors should focus on teaching basic and professional knowledge before practical teaching, provide practical guidance before internship mobilization meetings, use online review of internship manuals during student internships, and use offline visits for on-site guidance. Counselors should provide quality education and value guidance to students during their school years, and use WeChat groups to provide quality education, discipline education, etc. during their internships. Enterprise mentors should teach practical skills, professional values, labor ethics, etc. in their positions. (As shown in Table 1)

#### **4.3 Improve the Three-level evaluation System in School Enterprise Collaborative Education**

In the internship and practical teaching of the Industrial College, a hybrid approach of online and offline collaboration between schools and enterprises is utilized, involving schools, enterprises, and students as the main body. Therefore, considering the rationality and effectiveness of evaluation, the teaching model integrates the evaluation and feedback of multiple subjects, forming a comprehensive evaluation method of "college enterprise student". In the assessment and evaluation, it is

necessary to have a focus on the proportion and content of the assessment based on different roles and division of labor, and to preliminarily develop an evaluation system in proportion. As a representative of the Industrial College, the school should pay attention to the evaluation of students' theoretical knowledge, process feedback, and

ideological level; As an employer, we should pay attention to the evaluation of professional skills, professional ethics, interpersonal communication, and other aspects; As a reference for evaluating and continuously improving the process management of online and offline teaching modes for students.

**Table 1 Schematic Diagram of the Integration of Quality Education and Professional Knowledge Education in Industrial Colleges**

Role	Education Stage - Education Tasks - Education Methods
Tutor	During school - teaching professional theoretical knowledge, etc. - offline Internship Mobilization Meeting - Professor Internship Guidance, Precautions, etc. - Offline Internship period - Communication with corporate mentors, etc. - Online Internship period - App review student internship logs, etc. - Online During internship - on-site visits, professional guidance, etc. - offline During the internship period - regular meetings are held to track, evaluate, supervise, etc. - online Post internship evaluation assessment online/offline
Counsellor	During school - quality education, value leadership, etc. - offline Internship period - quality education, discipline education, etc. - online During the internship, I communicated with enterprise managers about student dynamics, etc., online Internship period - on-site visits, solving practical problems for students, etc. - offline
Class Teacher	During school - class management, daily learning, etc. - offline During the internship period - assisting in process management, etc. - online/offline
Corporate Mentor	Internship period - Feedback from school mentors - Online Internship period - teaching students job skills, vocational education, etc. - offline Post internship evaluation assessment online/offline
Enterprise Management Personnel	During the internship - communication and feedback with counselors, etc. - online Internship period - corporate culture, student daily management, etc. - offline Post internship evaluation assessment online/offline

One is the assessment and evaluation by the school. Student internship practice guidance teachers participate in student course evaluation and assessment, regularly evaluate internship practice diaries or summaries, and the assessment content mainly focuses on the student's theoretical mastery; Counselors or homeroom teachers can participate in evaluating students' ideological level, attitude towards participating in internship practice, life and discipline situation, etc. Counselors and homeroom teachers work together to guide teachers to comprehensively evaluate students' professional learning and quality education as the evaluation indicators and content of the school. The weight of the school's assessment and evaluation can account for 35% of the curriculum.

The second is the assessment and evaluation of employers. In the process of collaborative

education in industrial colleges, the evaluation of internship and practical teaching courses by employers or corporate mentors is very important. Corporate mentors provide long-term guidance to students in frontline learning, and need to evaluate their professional skills, hands-on ability, cooperation ability, team awareness, work attitude, professional ethics, etc. The weight of corporate assessment and evaluation can account for 60% of the overall course evaluation.

The third is student self-evaluation. Students are the main participants in the reform of internship and practical courses in the Industrial College. They conduct self-evaluation of the process teaching and their own learning situation between the Industrial College and employers. The evaluation content mainly includes guidance

from school teachers, guidance from enterprise mentors, talent cultivation in enterprises, and their own learning situation. By conducting surveys on student evaluations or satisfaction, the implementation of blended online and offline internship and practical teaching in the Industrial College is tested, Provide feedback and optimization for the subsequent development of the Industrial College. As a reference for the effectiveness of course implementation, student self-evaluation accounts for 5% of the overall weight of course assessment and evaluation.

By continuously improving the evaluation system for the implementation of online and offline school enterprise collaborative education in the Industrial College, further feedback on the problems in the implementation process, and proposing more scientific and reasonable implementation plans, it can effectively promote the significant improvement of the dual hybrid education effectiveness in the Industrial College.

### 5. Conclusion.

The fundamental goal of talent cultivation in universities is to cultivate high-quality comprehensive talents with comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor. The practical teaching of university internships is a weak link in quality education, and there is still much room for improvement in both traditional talent cultivation and current talent cultivation in industrial colleges. This article innovatively proposes the integration of quality education and professional knowledge education in practical teaching in industrial colleges through online and offline collaboration with schools and enterprises. This not only makes up for the shortcomings of traditional education practices, but also opens up new models of education in industrial colleges.

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