

# Research on the Optimization of the Industry-Education Integration Model for Project-Based Learning in the Vocational Undergraduate English Program

Zhenxiao Zhang\*

Foreign Language Teaching Department, Hainan Vocational University of Science and Technology, Haikou 571126, Hainan, China

*\*Author to whom correspondence should be addressed.*

**Copyright:** © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** Industrial and educational combination is the main channel to cultivate talents of vocational undergraduate majors, while project-based learning is a good teaching tool to meet the demand of professionalism. This paper focuses on English teaching in vocational undergraduates' education, focusing on the optimization of the industry-education integration mode, analysing the main problems existing in the industry-education integration mode at present, such as the uncoordinated goal, separated information, and suboptimal processes, as well as the directions for improvement in three aspects of modeling reform, content enrichment, and mechanism optimization. The purpose of which is to enhance the close connection between English teaching and jobs. improve students' comprehensive application abilities of vocational English; provide reference ideas for innovation of vocational undergraduate English teaching.

**Keywords:** Vocational undergraduate education; English teaching; Project-based learning; Industry-education integration

**Online publication:** March 26, 2026

## 1. Introduction

Undergraduate professional education focuses on training qualified technical talents. As a crucial way to improve the students' vocational skills and general capabilities, the reformation on English teaching should closely combine with the basic principles of industry-education integration. The traditional project-based educational models for English courses at the vocational undergraduate stage are usually shallow, teaching aims not aligned with the industry demands; contents of projects are irrelevant to professionals; and a lack of communication between school and enterprise, so that there is no accurate connection between the improvement of students' English level and their jobs. Based on the purpose of cultivating talents for vocational undergraduate education and with the premise of project teaching, it clarifies the connotation and problems in the current "two combinations" model; probes into the laws and directions for improving "two combinations", and facilitates shifting English education from "classroom-oriented" to "career-oriented", so that talent cultivation can be

smoothly connected with industry development.

## **2. The Fundamental significance of the industry–education integration framework for project-oriented learning in the vocational undergraduate English curriculum**

### **2.1. The compatibility of the industry-education integration model with English teaching in vocational undergraduate programs**

The system of combining schools with enterprises and learning by doing is consistent with the feature of professional and applied-oriented training of English undergraduate courses at vocational colleges, which can be taken as an effective measure to solve the problem of “decoupling of study and use” that always exists in traditional English teaching. Compared with regular undergraduate majors, vocational undergraduate English education focuses on training students’ ability to use professional English, not to conduct academic research, requiring instruction contents and methods to be more consistent with the real requirements of industry posts, which is highly consistent with the fundamental concept of industry-school combination: “match industry and serve employment.” This model offers vocational undergraduate English education, first-line industry resources, real contexts, and workplace practices so that teaching and learning English can move beyond just conveying information in favor of cultivating key workplace skills like communication, reading/writing, and translation skills. Furthermore, the vocational characteristics of the undergraduate English curriculum provide a realistic educational context to apply the industrial-educational integration mode, which is to transform the idea of the ‘conduit’ as an abstraction in our heads into some actual practice for teaching English. These two parts are complementary and inter-supportive:

### **2.2. The role of project-based learning as a vehicle in industry-education integration**

The main teaching tool of the industry education integration pattern is project-based learning based on real work tasks and focusing on practice, bridging the gap between English classes and actual workplaces. It plays an important role in turning the needs of school-enterprise cooperation, position matching, etc., into specific tasks for students’ English study; after finishing, they can consolidate and improve their English language ability and professional competence, which is a specific teaching tool to implement the integration of education with production<sup>[1]</sup>. Furthermore, this model can make companies completely involved with the instructional process by assisting in shaping how projects are planned and executed, and evaluation that matches job requirements, as well as integrating professional standards and work processes into curriculum design so that learners can have a direct experience of using English in real workplaces inside classrooms. It is this feature that makes industrial-school cooperation go far beyond a shallow level of cooperative education between schools and enterprises,

### **2.3. Core components and operational logic of the industry-education integration model**

The basic framework system of the industrial and educational combination mode construction of project teaching pattern based on professional undergraduate English majors includes five parts, such as joint participation of university-enterprise connection, job-related competence objectives, work-based projects, dual-professional pedagogical staff, and a multidimensional evaluation of work. They are closely related and complementary to each other, together forming a complete set that constitutes the basis for the implementation of this model. The participation of school-enterprise is double-sided and it is also the soul of the support; job requirement objectives provide directional guidance; industry-oriented projects act as the primary vehicle; dual-qualified teaching teams ensure talent development; and the diverse assessment mechanism ensures operation efficiency, where the working principle of this model follows the English ability demand on jobs, by the school-centered enterprise collaboration, and implemented through project-based learning, achieving a closed-loop process: “job requirement analysis → jointly designed projects by schools and enterprises → collaborative teaching by dual-qualified instructors → multi-dimensional assessment → competency alignment with job requirements. “During the entire procedure, both sides actively participate at each phase, maintain,” establishing a constant focus on cultivating the ability of students to apply professional English into practice.” Every step of English teaching is tightly

connected with practical demands from enterprises, ultimately, the tight coupling of training with current employer needs.

### **3. Current challenges of the industry-education integration model for project-based learning in vocational undergraduate English programs**

#### **3.1. Model positioning deviation: Disconnection between teaching objectives and industry job requirements**

As the method is stuck in the traditional teaching of common English. A lot of schools set the objectives for their PBL according to the criteria from CET-4 or CET-6 tests and basic English competence, not formulating specific occupational English ability training targets according to the actual requirements for various occupations, thus causing the formulation of training goals not in line with the future work development of students. Although some universities try to set up occupational English education objectives, they lack sufficient on-site exchange and investigation with enterprises to grasp the most recent English competence demand for professional posts, resulting in goals that trail actual industrial practice. Requirements like specific English words for a given position or the ability to communicate across departments within new industries are not immediately reflected in the goals. PBL remains focused on conventional workplace tasks, leading to a mismatch between the level of English language proficiency that learners have achieved and what is required by enterprises, which fails to reflect an appropriate orientation on the part of the dual system.

#### **3.2. Content design limitations: The project content lacks industrial context and professional attributes**

The shortcomings of the construction of project contents are still the main obstacles that prevent the application of the “industry education integration mode” of English project-based teaching in vocational undergraduate teaching, directly leading to the separation of education from industry practices, which is not conducive to achieving the basic professional English competence goals. Most schools still use traditional English teaching models to design projects for students to learn, emphasizing only linguistic basics and common ability cultivation without any particular industry case features or job-related characteristics, far away from real front-line enterprise work content and not in line with the demand for vocational students’ career growth. Current English teaching activities focus mostly on simple abilities such as life conversation and ordinary article comprehension, without industrial work experience and position requirements. Important elements, such as the description of products in the English language, rules of communications at a workplace, activities like the drafting of official documents in companies or international trade talks, no specific professional English courses are offered, which makes these programs unviable and hinders the students’ ability to use what they have learned in real work contexts later on.

At the same time, shallow cooperation between schools and enterprises can’t help to complete the professionalization design of the contents of projects. The enterprise is not fully involved in the entire process of developing and designing English projects, which makes it difficult to integrate essential elements from practice, such as professional standards, working methods or real-life business scenarios. While in a few places project work includes professional English terminology and expressions for short periods, they do not reflect real work environments and situations nor their communication context, therefore being a very superficial integration. In this type of project development process, students cannot understand and feel the English application requirement in real work position, which makes it difficult for students to cultivate their professional English level that meets the standard of enterprise needs; therefore, the model of combining industries with universities is formalized but not substantive, without truly achieving work integrated learning and therefore deviating from the goals of vocational education in undergraduate English teaching.

#### **3.3. Lack of operational mechanisms: Insufficient depth and stability in school-enterprise collaborative education**

Lacking clear and unified working procedures greatly limits the depth and continuity of enterprises’ participation in

English education. Enterprises are mostly invited to give a lecture or visit for a day instead of getting involved in more fundamental elements of project-based learning, such as setting goals, design, instruction delivery and assessment, which strongly limits cooperative learning efficiency. Moreover, lack of incentive structures to facilitate coordination and ongoing dialogue so that agencies cannot readily obtain current, updated information on employers' English proficiency needs, while companies do not see any actual talent or technology benefit as a result of partnering efforts that would sustain the partnership over time. In addition, institutions have no complete teaching management system, a dual-qualified teacher team, a project-based learning schedule and insufficient resources, which make it difficult to implement an English PBL program<sup>[2]</sup>. As a result, such collaboration between schools and industries may not be sustainable over time.

## **4. Optimization principles for the industry-education integration model of project-based learning in the vocational undergraduate English program**

### **4.1. The objective principle of synergy between position requirements, orientation and competency development**

Job requirement orientation combined with competency improvement is a key concept of the optimization of the "industry-school" cooperation mode, which requires that the optimization should start from the real English demand of enterprise jobs, while achieving the integrated development of students' general English ability and vocational English application capability. It means we need to break through the traditional mode of teaching objectives in general English courses, and by integrating with enterprises during study, it means clarifying the specific level of English required by different professions or jobs in detail, converting these levels into practical teaching targets of projects to better meet the needs of work. Although still following the principle of job demand guidance, it equally emphasizes the complementary development of students' basic and professional English competences, avoiding the extreme tendency of "prioritizing professionalism over basics". Basic English is a prerequisite to improve professional English, while professional English is an application and expansion of basic knowledge; both are equally important. This concept calls for building up two-tier teaching objectives ("basic + professional") so as to help learners integrate basic English knowledge with learning practical English skills needed in their future work via completing projects, to ensure that learning outcomes match the needs of employers as much as possible.

### **4.2. Content principles for integrating industrial scenario integration with project design**

The combination of industrial background with projects is the key idea to optimize the industry education cooperation mode, which means that we need to embed real workplace situations and elements in English project designs as much as possible, ensuring that the material is highly relevant and applicable, to enable "learning through experience and application." This means breaking out of conventional pedagogic assumptions about how projects should be designed: instead, developing English learning projects from the real tasks of corporations or cases similar to those performed at work, allowing students the opportunity to be exposed to real-life working environments of using the English language in carrying out projects. In addition, the integration of industrial cases, contexts throughout all stages of a project (i.e., from topic selection, problem breakdown to results reporting) by including fundamental industry requirements, project contents including job processes, and enterprise-specific English terms; project content needs to follow the rules of modularity and progression. from simple to complex; from basic to advanced; from independent to composite module according to the cognition law of students' learning process and professional competence needs. So as to achieve the unity between enterprise background and project creation, avoiding a tokenistic inclusion of industrial aspects, and ensuring that the contents of the projects are aligned with those found in industry.

### **4.3. Principles for ensuring deep collaboration and sustainable operation between schools and enterprises**

establishing regular, institutionalised work modes to maintain the model over time. The principle demands that we

move away from token collaboration, supporting holistic, full-chain business engagement with English project-based learning, to achieve intensive cooperation among institutes and businesses on goal setting, design of content, delivery of teaching, and assessment activities to form the shared-designed, shared-managed, and shared-raised learning community. Moreover, it requires the creation of lasting cooperation arrangements, in the form of written agreements between schools and enterprises that specify rights, responsibilities, interests, and communication mechanism as well as incentives. Coordination can ensure that the institution responds timely to industry needs and enterprises get qualified talents and technology support through cooperation, realizing win-win outcomes. At the same time, schools should also improve their own service forces to enhance the double-competent teaching staff.

## **5. Optimizing the industry–education integration framework for project-oriented learning in vocational undergraduate English education**

### **5.1. Reconstructing the project-based learning goal-oriented model with dual standards for schools and enterprises**

Optimizing the dual system of “two separate standards between school and enterprise” is a key way to reform the industrial and educational combination pattern, which means to go beyond individual institutions setting isolated objectives, instead establishing a collaborative “position competency standards + teaching and training standards” system jointly developed by schools and enterprises, relevant to work demands. Universities need to collaborate with industry partners in different fields and create co-research groups that perform first-line industry research into English competence. By identifying core English skills, key knowledge points, and professional competency requirements for various roles to develop scientific position-specific English proficiency standards<sup>[3]</sup>. Based on these standards, the two sides jointly define project-based learning goals that translate competencies into specific teaching goals and learning tasks for building a three-tiered system of “basic English language ability + English ability to do a particular job or profession + English ability to use across jobs/professions.” Furthermore, personalized task-specific policies that would be designed according to disciplinary characteristics, for instance, engineering programs focusing on technical English interpretation and communication skills, while business programs emphasize business English negotiation and foreign trade correspondence capabilities. In this way, it is possible to make sure that the goal-oriented model can meet both industrial needs as well as maintain the discipline-specificity, providing clear direction for project-based learning.

### **5.2. Establishing a project-based learning content system driven by industrial tasks**

The key to perfecting the industry-school cooperation model is to build an “industry-task-oriented” project teaching system, which means we need to establish a professional, task-oriented and module-based English program based on work tasks. School-enterprise collaboratively establish a group for designing projects in which they design English projects according to enterprise work tasks or cases, such as sales presentation, office English conversation, reading documents related to industries, international trade negotiation, etc., all having an obvious work context. The contents are organized by following the idea of “work tasks, modules and level-by-level competence”. It is subdivided into three main units: General Workplace English, Specialized Job English, and All-around Applied English, which meet the demands of particular occupational abilities by combining workplace environments, standards, and skills. Additionally, they incorporate the latest industry trends as well as discipline-specific vocabulary in English. and the working atmosphere of enterprises, so that students can not only learn professional English but also obtain some industry experience as well as grasp the work process and achieve the natural transfer from learning to practice.

### **5.3. Refine the industry-education integration operational mechanism of “dual-teacher collaboration + diversified evaluation”**

Optimizing the operation mode of “dual teacher cooperation + diversified assessment”. This is the foundation to optimize

the industry and education integration model; its essence is to form a systematic and standardized school enterprise cooperative mode, which can ensure the sustainable implementation of this model. First, a two-teacher education mode, i.e., schools send teachers who have the qualifications of English language lecturers into companies for internship and practice, improving their professional knowledge of the relevant field, and foreign language pedagogy for occupational purposes; employers send engineers or technicians as adjunct professors to join cooperative education classes, project direction, and evaluation procedures, to form a “school-based English teachers + company career mentors” teaching group. Secondly, a joint assessment mechanism formed which transcends the institutional single evaluation mode and introduces enterprise ability standard to be evaluated, forming a “procedure assessment + result assessment + enterprise assessment” comprehensive assessment system; holistically assessing the student’s learning results on such aspects as his/her learning attitude, performance of projects done, and proficiency in English at work place; and a long-term communication/benefit sharing mechanism set up by signing of school-enterprise talent development agreements, which clarify the responsibilities on both sides.

## 6. Conclusion

Optimizing the system of combining industry and education, project teaching mode for vocational undergraduates’ professional English is an important way to meet the goal of cultivating talents under vocational education and solve the problem of separation between study and use in professional English courses. In this article, we set up the research framework, including the following four aspects: concept, existing problems, laws of optimization, and development paths, clarifying the main direction and way to optimize models. Through the reconstruction of the “dual standard (school-enterprise)” purpose system, establishing the “industry job-oriented” curriculum model, and perfecting “double teacher cooperation + multi-angle assessment” implementation mode, this strategy addresses the major concerns regarding disjointed curricular goals, redundant curriculum content delivery, and nonproductive processes; and it encourages integration of English courses with business operations. that allows the project-based approach of education to be used in an effective way when it comes to students’ professional language acquisition. Thus, it greatly improves the professional English practice ability of vocational college students and their employability, cultivating first-rate engineering talents who have not only good language skills but also solid hands-on capabilities for enterprises.

## Disclosure statement

The author declares no conflict of interest.

## References

- [1] Chi XJ, 2025, Exploration of a Project-Based Teaching Approach for Integrated English Reading and Writing in Higher Education Empowered by Multimodal Methods. *Overseas English*, (10): 117–119.
- [2] Li Q, 2025, Research on Teaching Strategies for College English Writing Based on Project-Based Learning. *Jiangsu Economic News*, T01.
- [3] Jian H, 2026, Research on the Interdisciplinary Project-Based Learning of Ideological and Political Education in the “Comprehensive English” Course at Border Universities from the Perspective of New Liberal Arts. *English Teacher*, 26(1): 14–20.

### Publisher’s note

*Whoice Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.*