

# Design and Practice of Project-Based College English Teaching in Chinese Vocational Undergraduate Universities: An Industrial Scenario-Oriented Approach

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**Abstract:** The fundamental mission of vocational undergraduate universities in China is to serve regional industries and cultivate application-oriented professionals with technical expertise. College English, as a core component of the general education curriculum, must transcend conventional language instruction that isolates linguistic knowledge from its contexts of use. Drawing on the Production-Oriented Approach (POA), Situated Learning Theory, and Authentic Assessment Theory, this paper identifies existing deficiencies in current project-based English instruction, establishes design principles, and proposes optimization pathways across three dimensions: hierarchical teaching objectives aligned with industrial job requirements, modular project content grounded in authentic scenarios, and a multi-dimensional evaluation system integrating process and outcome assessment. This framework serves to bridge the gap between English curricula and genuine workplace demands.

**Keywords:** industrial scenarios; chinese vocational undergraduate universities; project-based college english teaching; production-oriented approach; situated learning theory; authentic assessment

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## 1. Introduction

Vocational undergraduate universities constitute a distinct tier within China's higher education system, mandated to serve regional economic development and produce application-oriented graduates whose technical knowledge and practical competence align with local industry needs. College English, as a mandatory foundational course across all disciplines, bears a twofold responsibility: elevating students' language proficiency and cultivating workplace-embedded communicative competence and intercultural awareness. This dual mission demands a pedagogical approach coherent with vocational education philosophy—one prioritizing the integration of theory and practice, real-world tasks, and holistic development of specialized and professional skills.

Traditional College English pedagogy has proven resistant to these demands. The conventional model, inherited from academic undergraduate programs, remains organized around vocabulary and grammar teaching, decontextualized text

analysis, and test-oriented drilling. These practices operate at a considerable remove from professional communicative realities. This inadequacy reflects what Wen(2015) identified as the fundamental problem of “separation between learning and using”, wherein language input and output are treated as isolated stages, and the application of language in meaningful tasks is deferred or absent<sup>[1]</sup>.

Project-based teaching (PBT) offers a promising alternative. By organizing instruction around authentic, complex tasks requiring sustained inquiry, collaborative effort, and concrete outcomes, PBT shifts learning from passive reception to active engagement. The existing literature confirms that well-structured projects enhance communicative competence, foster learner autonomy, and facilitate knowledge transfer to real-world applications<sup>[2-3]</sup>. Nevertheless, current PBT implementations in Chinese vocational undergraduate English programs remain tethered to generic academic themes—campus life, social issues, cultural topics—rather than engaging with the communicative demands of target industries. The fundamental challenge is reconceiving PBT as a pedagogical bridge between language classrooms and professional workplaces by embedding industrial scenarios into the instructional process.

This study addresses this challenge through three interconnected objectives: critically evaluating prevailing deficiencies in project-based College English instruction, articulating theoretically grounded design principles drawing on the Production-Oriented Approach<sup>[1,4]</sup>, Situated Learning Theory<sup>[5]</sup>, and Authentic Assessment Theory<sup>[6]</sup>, and proposing concrete optimization pathways for integrating industrial scenarios into curricular objectives, content, and evaluation.

## 2. Theoretical Foundations and Integration Logic

### 2.1. The Production-Oriented Approach as Instructional Design Framework

The Production-Oriented Approach was developed by Wen Qiufang and her team at Beijing Foreign Studies University as a response to the “separation between learning and using” in Chinese tertiary English education. POA comprises three interrelated components: teaching principles (learning-centeredness, integration of learning and use, whole-person education), teaching hypotheses (output-driven, input-enabled, selective learning), and a tripartite teaching process—motivating, enabling, and assessing. Its most recent iteration, POA 3.0, incorporates key competency goals anchoring the entire instructional cycle<sup>[7]</sup>.

POA’s motivating-enabling-assessing cycle maps directly onto project-based instruction: a project begins with an authentic communicative scenario that drives learners to recognize gaps between current and required capacities (motivating); proceeds through scaffolded activities supplying linguistic and procedural resources (enabling); and concludes with collaborative evaluation of products and processes (assessing). POA’s insistence on integrating learning and use provides a principled rationale for this study’s core claim: project-based English instruction should be driven by the communicative demands of industrial positions, with objectives specified in terms of productive workplace competences rather than abstract linguistic knowledge.

Within this study’s framework, POA serves as the overarching instructional design architecture: the alignment of teaching objectives with industrial competencies constitutes the motivating function; modular content grounded in authentic industrial contexts operationalizes the enabling function; and the multi-dimensional assessment system embodies the assessing function.

### 2.2 Situated Learning Theory and Industrial Contextualization

Situated Learning Theory, articulated by Lave and Wenger (1991) in *Situated Learning: Legitimate Peripheral Participation*, posits that learning is fundamentally a social process embedded in specific contexts of practice<sup>[5]</sup>. Its central construct—legitimate peripheral participation—describes how newcomers to a community of practice acquire knowledge, skills, values, and identity through engagement in authentic activities of progressively increasing complexity and responsibility. Knowledge is not a decontextualized commodity for transmission; it is co-constructed through active participation in sociocultural practices.

These concepts have direct implications for vocational English education. A professional workplace constitutes a community of practice characterized by shared repertoires of specialized terminology, communicative genres, interactional norms, and evaluative standards acquired through sustained participation. When College English instruction remains confined to generic academic settings, learners are initiated into a community of language learners rather than language users in professional contexts. This accounts for the transfer failure widely documented in vocational English education: students may achieve satisfactory test scores yet remain unable to deploy linguistic knowledge in workplace communicative situations.

Integrating industrial scenarios into project-based teaching constitutes the deliberate construction of an authentic community of practice within the pedagogical environment. By anchoring project tasks in real corporate workflows and industry service settings, instructors create conditions for students' legitimate participation in the professional community they aspire to join. Through sustained engagement, students acquire not only linguistic forms but also professional dispositions, ethical sensibilities, and collaborative capacities. Situated Learning Theory thus provides the theoretical justification for the content design principles and modular project development proposed in this study.

### **2.3. Authentic Assessment Theory and Evaluation Redesign**

Authentic Assessment Theory, as articulated by Wiggins (1998) in *Educative Assessment*, challenges conventional testing methods that measure discrete, decontextualized knowledge items<sup>[6]</sup>. Wiggins defines authentic assessment tasks as realistic in replicating the constraints and complexities of actual performance situations; requiring judgment, innovation, and flexible knowledge application to ill-structured problems; asking students to “do” the subject rather than answer questions about it; and providing meaningful, actionable feedback. Crucially, Wiggins conceives assessment as an ongoing component of the learning process—“educative assessment”—rather than a terminal measurement event.

Applying this theory to project-based College English addresses a critical weakness: conventional English assessment relies on summative examinations measuring grammatical accuracy and reading comprehension through standardized formats. These systematically fail to capture the communicative competencies most valued in professional workplaces—sustaining real-time business conversations, adapting linguistic register flexibly, collaborating across linguistic and cultural boundaries, and producing professional documentation meeting industry standards. These capacities are performative, context-dependent, and processual; they cannot be validly assessed through discrete-point testing methods.

The multi-dimensional evaluation system proposed in this study is designed according to authentic assessment principles. Combining formative and summative components creates an assessment architecture congruent with the competences being assessed. Including multiple evaluative perspectives—teacher expertise, student self-appraisal, peer review, and industry practitioner feedback—reflects Wiggins's (1998) insistence that authentic tasks be evaluated from the community of practice perspective in which performance occurs<sup>[6]</sup>.

### **2.4. Triadic Integration: A Unified Framework**

These three theoretical pillars form a coherent analytical framework constituting this study's core theoretical contribution. POA supplies the macro-level instructional design architecture, organizing the project cycle from motivating through enabling to assessing. Situated Learning Theory supplies the meso-level mechanism for content contextualization, explaining why industrial scenarios must be embedded in project tasks as a constitutive condition for acquiring professional communicative competence. Authentic Assessment Theory supplies the micro-level framework for evaluation redesign, ensuring assessment tasks and criteria are congruent with the competences being developed. Each optimization pathway proposed in this study is thus anchored in recognized theoretical scholarship, producing a design framework that is both practically operationalizable and theoretically defensible.

### **3. Existing Problems in Project-Based English Instruction**

#### **3.1. Teaching Objectives Out of Sync with Industrial Job Requirements**

Current project-based College English instruction reveals a persistent disjuncture between stated objectives and the communicative competence profiles industrial positions demand. Course syllabi continue articulating goals derived from general English proficiency frameworks: vocabulary memorization, decontextualized grammar mastery, academic reading comprehension, and standardized written compositions. While possessing pedagogical value in certain contexts, these objectives represent an impoverished conception of professional language use. The English competence required for international trade negotiation, technical manual preparation, intercultural customer complaint management, or persuasive product presentation involves capacities—contextual judgment, genre flexibility, register adaptation, collaborative problem-solving, and intercultural communicative awareness—conspicuously absent from conventional formulations.

This misalignment is compounded by the absence of systematic differentiation across disciplinary domains. Engineering, business management, and cultural tourism programs place fundamentally different demands on English use, yet current curricula apply substantially identical objective frameworks across all specializations. Consequently, project-based instruction operates in a curricular vacuum where neither teachers nor students have a clear, functionally specified picture of the communicative destination toward which instruction is directed .

#### **3.2. Genuine Industrial Scenarios Missing from Project Content**

Project-based College English content is predominantly organized around textbook-derived themes oriented toward general academic English rather than professionally contextualized English. Typical tasks include campus lifestyle surveys, environmental protection presentations, or classroom debates on social issues. While moderately effective for developing generic fluency, these bear little resemblance to the communicative workflows and genre conventions graduates encounter professionally .

Analyzed through Situated Learning Theory, this represents a fundamental failure of contextual authenticity. Current project tasks constitute an artificial community of practice—students performing academic exercises for instructor evaluation—rather than opportunities for legitimate peripheral participation in target professional communities. The types of knowing cultivated are congruent with academic performance demands but not with the situated, practice-based knowledge characterizing competent professional English use .

This problem is exacerbated by sluggish content updating. New business forms—cross-border e-commerce, digital service outsourcing, smart manufacturing—emerge rapidly, generating novel communicative demands. Yet project task libraries remain largely static, and university-enterprise cooperation for joint content development remains significantly underdeveloped.

#### **3.3. Workplace English Application Skills Neglected in Evaluation**

The prevailing assessment regime relies on summative evaluation determining grades through end-of-term written examinations and instructor-evaluated project reports. Written examinations can assess declarative knowledge of grammar and vocabulary but cannot assess capacity to deploy that knowledge fluently and adaptively in dynamic workplace interactions. Project reports privilege planning, organization, and formal written expression while leaving unexamined the oral, interactive, collaborative, and improvisational dimensions central to professional communication.

Equally problematic is the absence of a well-developed process evaluation index system. No precise operationalized standards exist for quantifying participation quality, task completion efficiency, appropriateness of English exchanges during collaboration, or capacity to adapt communication strategies in response to intercultural challenges. Assessment consequently captures only the aggregate product rather than the learning process, retaining high subjectivity with limited objective evidence—rubrics, rating scales, or performance descriptors—to guide evaluative judgments. The involvement of multiple evaluative perspectives—student self-assessment, structured peer review, or industry professional feedback—is notably absent from current practice.

## **4. Principles of Project-Based Teaching Design for Industrial Applications**

### **4.1. Precision Alignment with Industrial Job Competencies**

Project-based teaching design must be strictly aligned with the competence profiles required by target professional positions. Grounded in POA's tenet that productive output drives the instructional cycle, this principle requires that educational objectives derive from systematic analysis of actual communicative demands of industrial positions rather than general proficiency frameworks or textbook logic. Methodologically, it demands backward design: specifying terminal productive competences, identifying enabling linguistic knowledge and professional dispositions, then determining project tasks, activities, scaffolding strategies, and assessment procedures to systematically foster and verify development.

Operationalizing this principle requires systematically surveying regional industrial development plans, occupational skill standards, and operational requirements of international-facing positions to compile inventories of essential terminology, communicative scenarios, professional expression patterns, and competence requirements across the industrial chain. These inventories provide the authoritative basis for defining project themes, selecting knowledge content, and establishing performance standards. Critically, this principle requires rejecting homogeneous approaches that apply identical content across diverse professional domains, instead mandating systematic differentiation in difficulty levels, training priorities, and competence attainment targets based on distinctive work characteristics of each disciplinary program.

### **4.2. Task Construction Guided by Real-World Contexts**

Drawing on Situated Learning Theory's proposition that knowledge and skills are acquired most effectively through scaffolded participation in authentic community practices, this principle mandates constructing project tasks through systematic utilization of actual corporate workflows, international business processes, and industry service settings. Such environments should replicate the genuine working atmosphere, workflow logic, interactional patterns, and business etiquette norms of the target professional community.

The design imperative is reproducing, within the pedagogical frame, the core components of workplace team cooperation, business communication conventions, and professional English documentation standards. Real-world contexts constitute the generative matrix from which project tasks emerge and the normative environment against which performance is evaluated. Tasks derived from actual business situations employ standardized processes and terminology compatible with authentic professional usage. In this situated classroom, the instructor functions as facilitator rather than knowledge transmitter, structuring legitimate peripheral participation, providing calibrated scaffolding, and gradually withdrawing support as learners demonstrate increasing independent competence.

### **4.3. Integrated Development of Language and Professional Competence**

The project-based approach must be founded on simultaneous, integrated cultivation of linguistic skills and professional competence. Systematic improvement in vocabulary, grammar, listening, reading, speaking, writing, and translating must proceed in tandem with structured development of workplace conduct, team spirit, accountability, intercultural tolerance, and ethical commitment. This aligns with POA 3.0's incorporation of key competency goals extending beyond linguistic knowledge to encompass critical thinking, intercultural communicative competence, collaborative problem-solving, and autonomous learning capability.

Operational implications extend to all project phases. During task assignment, instructors should articulate not only expected linguistic products but also collaborative norms, communication protocols, and ethical standards. During team discussions, students should be systematically guided in workplace-appropriate conduct, professional speech norms, and constructive dispute resolution. During outcome presentation, careful attention must address register appropriateness, intercultural sensitivity, and professional accountability.

## 5. Optimization Pathways for Industrial Scenario-Oriented Teaching

### 5.1. Hierarchical Teaching Objectives Aligned with Industrial Job Structuring

The first optimization pathway addresses the misalignment identified in Section 2.1 by constructing a graduated hierarchy of learning goals mapping onto differentiated industrial competence demands. Grounded in POA's output-driven tenet, the system comprises three progressive tiers. At the foundational level, emphasis is placed on consolidating essential vocabulary and core grammatical structures while developing everyday listening, speaking, and communicative confidence. At the intermediate level, focus shifts to accurate use of specialized terminology, managing professionally relevant business scenarios (receiving visitors, handling inquiries, composing routine emails), and comprehending and producing standardized workplace texts. At the specialized level, emphasis is directed toward high-level workplace skills: formal English presentations, intercultural business negotiations, and autonomous production of professional documentation meeting industry standards.

This hierarchical framework is differentiated across disciplinary domains. Specialized-level objectives for cross-border e-commerce might emphasize English-mediated product listing and customer inquiry response, while smart manufacturing objectives prioritize reading international equipment specifications and communicating quality control procedures. This differentiation ensures objectives genuinely align with sector-specific demands and support students' long-term professional development.

### 5.2. Modular Project Content Grounded in Industrial Scenarios

The second optimization pathway addresses the absence of authentic industrial scenarios identified in Section 2.2 by developing a modular project content library through university-industry collaboration. Drawing on Situated Learning Theory, the College English curriculum should be restructured into work modules organized around typical commercial scenarios of locally significant industries: cross-border trade (platform communication, trade fair negotiation, logistics coordination), cultural tourism (visitor reception, heritage interpretation, service recovery), smart manufacturing (technical specification reading, process documentation, quality reporting), and modern logistics (supply chain coordination, warehousing documentation, freight correspondence). Each module integrates real-world task types including situational simulations, business negotiations, presentations, business writing, and intercultural exchanges.

The modular system's defining feature is intrinsic dynamism. Modules are classified by profession and sector, with institutionalized mechanisms for integrating language models and communicative patterns from emerging industrial forms. Project task files undergo periodic review and updating informed by ongoing industry partner feedback, ensuring the content system remains responsive to evolving workplace communicative requirements.

### 5.3. Multi-Dimensional Evaluation Integrating Process and Outcomes

The third optimization pathway addresses evaluation deficiencies identified in Section 2.3 by constructing a comprehensive assessment architecture integrating formative and summative components, drawing on multiple evaluative perspectives, and aligning with authentic communicative tasks. Grounded in Authentic Assessment Theory, the system combines two complementary assessment streams. Formative assessment, conducted continuously, captures processual dimensions systematically overlooked by summative examinations: individual participation quality, team collaboration effectiveness, stage-by-stage task completion, appropriateness and fluency of spoken English during interactions, and capacity for constructive self and peer evaluation. This serves a diagnostic and developmental function, providing timely, actionable feedback enabling strategy adjustment during the project itself.

Summative assessment evaluates culminating products: the project research report, formal English oral presentation, industry scenario simulation, and specialized professional documentation. A distinctive feature is the diversification of evaluative participants, drawing on POA's teacher-student collaborative assessment model: teacher expertise, student self-appraisal fostering metacognitive awareness, peer review developing evaluative judgment, and industry specialist feedback anchoring assessment in professional community standards.

To enhance objectivity and transparency, detailed qualitative indicators and behaviorally anchored performance

descriptors are prespecified for each dimension. The multi-perspectival feedback generated is not treated as terminal output but as input to a dynamic optimization loop: assessment insights inform continuous improvements in project design, content development, and instructional delivery, realizing Wiggins's (1998) conception of educative assessment as an engine of ongoing improvement<sup>[6]</sup>.

## 6. Conclusion

This study has examined the design and practice of project-based College English teaching in Chinese vocational undergraduate universities through industrial scenario orientation. Drawing on three complementary theoretical frameworks—POA, Situated Learning Theory, and Authentic Assessment Theory—the study has identified key deficiencies, articulated theoretically grounded design principles, and proposed concrete optimization pathways.

The deficiencies identified—misalignment of teaching objectives with workplace demands, absence of genuine industrial scenarios in project content, and neglect of process-based evaluation of workplace English skills—constitute significant barriers to fulfilling College English's educational mission in vocational contexts. The principles proposed—precision alignment with industrial job competencies, task construction guided by real-world contexts, and integrated development of language and professional competence—provide actionable guidance for reform. The optimization pathways—hierarchical industry-aligned objectives, modular scenario-grounded content, and multi-dimensional process-and-outcome-integrated evaluation—offer a systematic approach to bridging the gap between English instruction and workplace requirements.

This study's principal contribution lies in its theoretically grounded, practice-oriented articulation of a coherent framework integrating project-based teaching logic with concrete industrial communicative demands. By situating curriculum design within a triadic theoretical architecture, the study moves beyond piecemeal, experience-based reform proposals. The framework is theoretically defensible through anchoring in internationally respected scholarship and practically operationalizable through specification of implementable steps.

The limitations should be acknowledged. The framework has been developed through theoretical analysis and synthesis rather than primary empirical investigation. Its effectiveness awaits validation through systematic implementation and rigorous evaluation across multiple institutional contexts. Future research should prioritize empirical studies testing the framework in diverse vocational undergraduate settings. Nonetheless, the articulated framework represents a coherent, principled approach to designing project-based College English instruction, ensuring the curriculum fulfills its dual role of developing linguistic proficiency and fostering professional communicative competence for an increasingly internationalized professional world.

## Disclosure statement

The author declares no conflict of interest.

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