Education Insights

Article

The Construction of a New Ecosystem for Vocational Undergraduate English Based on Needs Analysis

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Abstract: This research has constructed a new ecosystem for vocational undergraduate English education based on a three-dimensional needs analysis framework of students, society, and institutions. Through an action research conducted at Hainan Vocational University of Science and Technology, three core issues were revealed: students' weak basic language skills, mismatch between course design and demands, and insufficient industry relevance. The constructed ecosystem integrates three main pillars: personalized student learning paths, an ESP classroom teaching environment emphasizing practical application, and the collaborative development of an industry-academia integration mechanism. Findings reveal that students' needs are evolving towards specialized communication skills and real learning scenarios. This model aims to cultivate technically skilled talents with global competence by systematic integration of teaching innovation, institutional guarantees, and labor market demands. This framework provides a sustainable solution for the transformation of vocational English education, enabling it to develop into a dynamic and employment-oriented ecosystem.

Keywords: vocational undergraduate education; English needs analysis; ecosystem construction; industry-education integration; curriculum reform

Published: 14 September 2025

1. Introduction

The rise of vocational undergraduate education is an important evolution in China's strategy for cultivating talents capable of working in high-skill, technologically advanced, and globally interconnected industries. Unlike traditional academic education, vocational undergraduate education emphasizes the seamless integration of theoretical knowledge and practical application, aiming to cultivate "high-level technical skills professionals". In this context, English proficiency is no longer merely a requirement of a discipline, but has become a crucial professional quality, which is of great significance for understanding international technical standards, operating imported equipment, conducting cross-border team collaboration, and serving international clients.

Although the importance of English teaching has been widely recognized, vocational universities still face significant challenges. As revealed by the previous action research, there is a widespread disconnection between the existing teaching materials, talent cultivation plans, classroom management models, and the actual needs of students and society, resulting in insufficient learning motivation and unclear goals among students, and ultimately, they fail to acquire the English skills necessary for their future careers [1]. The "Higher Vocational Education College English Curriculum Standards (2021 Edition)" and the "Vocational Education Law (2022)" advocate a teaching transformation towards practical application-oriented approaches. However, converting these policies into effective teaching practices still requires systematic reform based on empirical evidence.

The preliminary action research conducted a diagnostic analysis of the above issues through a three-dimensional needs assessment. It was found that students had various deficiencies in their abilities, showed a strong desire to improve their oral skills, and had an urgent need to master the terminology of their professional fields. At the same time, the research also pointed out that the institutions need to provide targeted training and institutional support, such as real simulation scenarios.

Based on these key findings, this paper argues that piecemeal reforms are no longer sufficient, and a comprehensive and coherent new ecosystem for vocational undergraduate English education should be established. This system is centered around three collaborative dimensions: 1) The student dimension focuses on and responds to the individual differences, learning motivations, and career development aspirations of learners; 2) The classroom dimension reconfigures the classroom based on the ESP teaching concept, relying on scenario-based teaching and technological integration, to create a dynamic, practical, and motivating learning environment; 3) The industry-academia dimension deepens the mutually beneficial cooperation between the school and enterprises to ensure that the course content is in sync with the industry, provides a real practice environment, and broadens the employment channels.

This article will elaborate on the theoretical and empirical basis of this ecosystem and conduct a detailed analysis of its core components. The aim is to provide educators and policy makers with an operational model to bridge the current gap and truly achieve the strategic goal of cultivating "internationalized talents with an international perspective, familiar with international rules, capable of participating in international affairs and international competition".

2. Literature Review and Theoretical Foundation

The construction of the new ecosystem for vocational undergraduate English education is based on existing educational concepts, needs analysis models, critical understanding of the existing teaching framework, and the constantly evolving model of industry-academia integration. This section will review the relevant literature and theories that form the basis of this ecosystem.

2.1. The Concept of "Ecosystem" in Educational Reform

The term "ecosystem" originated from ecology and has gradually gained popularity in educational research, used to describe the complex, dynamic, and interdependent network of participants, institutions, resources, and processes that affect learning outcomes. In the educational ecosystem, all components are interrelated and interdependent; any change in one element will inevitably affect other elements [2]. This perspective avoids isolated reforms - such as merely replacing textbooks or teaching methods - and advocates a holistic, systematic approach.

Applying this concept to vocational English education means that students, teachers, courses, teaching materials, institutional policies, and the external industry environment are all components of a single system. The practicality and effectiveness of this system depend on the harmonious interaction and mutual reinforcement among these parts. For example, courses designed without considering industry needs will not motivate students, and students' lack of motivation will in turn weaken teachers' efforts and the goals of the courses. Therefore, the reform must be comprehensive and should simultaneously adjust multiple key aspects within the ecosystem to form a sustainable and self-reinforcing improvement cycle [3]. Given this, this article constructs a model from an ecological perspective to ensure that intervention measures in each pillar domain (such as classroom teaching methods) are truly effective and can support other pillar domains (such as student development paths and industry cooperation).

2.2. Key Theories of ESP/EAP Demand Analysis

Needs analysis (NA) is the cornerstone of English for Specific Purposes (ESP) and English for Academic Purposes (EAP), advocating that course design should not start with pre-defined course outlines but should begin with an understanding of the learners' required capabilities. The theoretical development of demand analysis provides a key tool for understanding the needs faced by vocational undergraduate students.

Early NA models mainly focused on goal situation analysis, aiming to determine the language features and skills required by learners in future professional or academic roles [4]. This gradually developed into a more comprehensive framework. The classic model expanded needs analysis to include: 1) information about the learner's profession, that is, their tasks and activities are within the goal situation. 2) information about the learner's personal characteristics, that is, their current lack of skills and needs. 3) English language information, including the required language skills, genres, and communication strategies. 4) learning needs, such as cognitive, emotional, and logistical factors that affect the learning methods of learners. 5) environmental needs, that is, institutional and temporal limitations of the learning environment [5].

This comprehensive approach is crucial for vocational education, as it is no longer limited to the simple listing of vocabulary or grammar points, but covers the entire journey of the learners. Additionally, a dual needs analysis model clearly divides needs into social needs (needs in the social and workplace) and personal needs (learners' own goals and cognitive styles), providing a practical perspective for the actual situation in China [6]. Later, these international and domestic modelswere integrated into a widely recognized university English needs analysis framework in China, which directly provided guidance for the three-dimensional (student, society, institution) model in the basic action research of this article [7]. These theories collectively hold that an effective English course must be based on three fundamental aspects: what learners lack and desire, the requirements of employers, and what the institution can actually provide.

2.3. The Current Professional English Teaching Models and Their Limitations

Although the theory-based design has clear necessity, the existing models adopted by many vocational colleges are still limited to the traditional model and have several key limitations:

2.3.1. General English (EGP) Model:

Many courses still adopt a one-size-fits-all EGP teaching syllabus, usually a simplified version used by academic universities. This model focuses more on general language skills and preparing for standardized tests like the College English Test Band 4, rather than the communicative skills for specific occupations [8]. The result is a serious disconnection.

2.3.2. The "Tag-on" ESP Model:

Although teaching developers gradually realize the importance of ESP courses, they are limited to the more advanced part added to the EGP courses rather than viewing ESP as an integrated goal. Its limitations lie in two aspects: Firstly, students often lack the EGP basic skills necessary for effectively participating in ESP content; Secondly, ESP courses are usually taught by English teachers, and these teachers may lack in-depth subject knowledge, making it difficult to simulate real professional scenarios [9].

2.3.3. Standardized, Resource-Driven Model:

Course design is often driven by existing textbooks and resources rather than being learner-centered. Teaching materials are often outdated and lack authenticity. Moreover, classroom management and teaching methods often emphasize rote memorization and

passive knowledge acquisition rather than the active, communicative, and problem-solving skills required by modern industries [10].

These existing models are essentially linear and fragmented. They fail to establish the necessary feedback loops and collaborative mechanisms required for adaptive and responsive systems, thus continuing the ineffective cycle revealed by the Basic Action Research.

2.4. The Imperative for Industry-Academia-Collaboration in Curriculum Design

A closer connection between education and industry is a core principle of vocational education theory and policy. Education policies explicitly encourage the deep integration of industry and education through school-enterprise cooperation [11]. The theoretical necessity of conducting such cooperation in course design is obvious. Cooperation ensures authenticity and relevance. Enterprises can provide real-time information on industry trends, technological progress, and the exact communication needs of different job positions. This enables teaching real language in a real context, going beyond fictional textbook dialogues and adopting actual language forms such as nursing handover, technical manuals, or customer consultations [12].

Furthermore, it also bridges the gap between theory and practice. Through mechanisms such as joint course development committees, enterprise sponsorship projects, internships, and guest lectures by industry professionals, students can see the practical application of their English skills. This not only enhances learning motivation but also promotes the formation of professional identity [13].

Ultimately, Industry-Academia-Research cooperation is a key mechanism to ensure that the "social needs" dimension in the needs analysis is accurately captured and continuously updated in the educational ecosystem. It transforms the course from a static document into a dynamic, living process, which is jointly created and verified by the final stakeholders – employers and future employees.

3. Research Methodology: The Foundation of Needs Analysis

This part describes the methodological framework that underpins the needs analysis, serving as the foundation for constructing the proposed ecosystem. It outlines the design of action research, elaborates on the theoretical model guiding the investigation, describes the data collection process, and comprehensively reveals the key gaps and various demands in the current undergraduate English education background of the profession.

3.1. Overview of the Original Action Research Design

To effectively address the practical problems identified in the teaching of vocational undergraduate English, this study adopted the action research method. Action research is a participatory and cyclical process aimed at simultaneously investigating and resolving practical problems in a specific context [14]. Its plan, action, observation, and reflection cycle nature makes it particularly suitable for educational environments that require continuous feedback for intervention.

The study was divided into three different cycles, conducted over a two-year period (2023 - 2024), to gradually improve the understanding of the problem and the intervention measures.

The first cycle (diagnostic stage - 2023): The main objective was to establish an understanding of the current English learning situation of first-year students. Before the end of their first semester, questionnaires were distributed to 641 first-year students from three colleges (Nursing, Urban Architecture, and Medical). This cycle aimed to determine the students' English proficiency, their interest in English learning, existing skill gaps, and their overall sense of alienation from the classroom. The research results revealed wide-

spread structural deficiencies, ambiguous learning objectives, and a serious mismatch between teaching materials and students' levels, prompting the school to take intervention measures.

The second stage (intervention and focused exploration - 2024): During this stage, the school implemented relevant changes (such as replacing textbooks, adjusting courses, and offering courses related to the profession), and then conducted a survey on a more targeted group. That is, for 352 "college to bachelor`s degree program" students from the nursing program who entered in 2024. This group was chosen because they had previous internship experience, which gave them a clearer understanding of the professional requirements. In this stage's questionnaire survey, short-term and long-term learning goals and career aspirations were explored. The results showed that the demand hierarchy focused on passing short-term exams and the College English Test Band 4, while there was great uncertainty about future plans.

The third stage (longitudinal reflection and verification - 2024): Before the end of the second stage, that is, the end of the second semester, the same group was surveyed again. At this time, they had already experienced the adjusted courses and professional English courses. This questionnaire survey was carefully revised to explore specific skill preferences (listening, expression, reading, writing), professional English needs, and the expected institutional support. This cyclical process was used to verify the implemented adjustments, measure the changes in students' needs after exposure to professional content, and collect detailed and actionable data to build a new ecosystem. It confirmed a significant shift in the demand for practical communication skills and professional terminology.

This multi-cycle design ensured that this study was not only diagnostic but also transformative, providing direct guidance for teaching practices within the institution and being influenced by these practices.

3.2. The Three-Dimensional Needs Analysis Model

The entire research was guided by a comprehensive Three-Dimensional Needs Analysis Model (Figure 1), synthesized from previous studies [5-7]. This model provided a theoretical framework to ensure a holistic understanding of the demands grounded in English education, moving beyond a simplistic focus on student deficiencies.

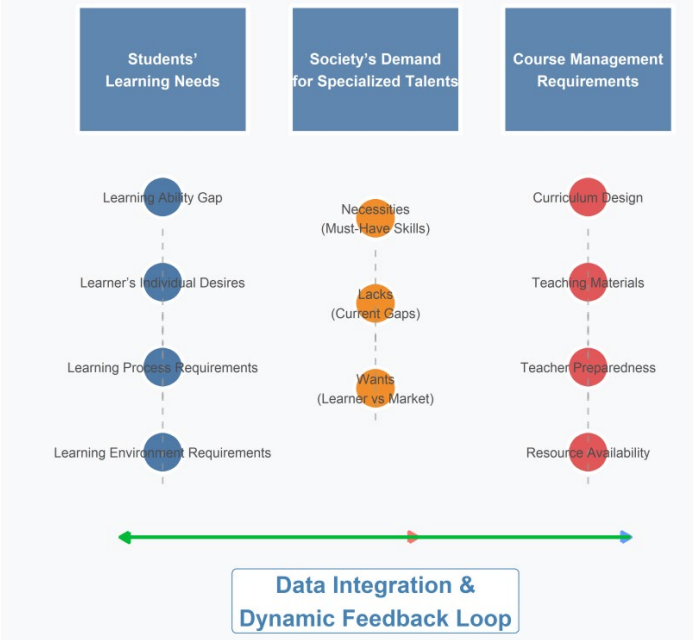

Figure 1. Three-dimensional English needs analysis model [1].

As shown, Figure 1 elaborates from three aspects, that is the Student Dimension (Students Learning Needs), Society Dimension (Society's Demand for Specialized Talents) and the Institution Dimension (Course Management Requirements). The Student Dimension has specified the sub-model through four interrelated components: the Learning Ability Gap clarifying disparities in students current English proficiency level and skill deficiencies [7]; Learners' Individual Desires finding motivational factors, interest level, and personal academic objectives; Learning Process Requirements examining preferences for instructional approaches and engagement strategies; and Learning Environment Requirements assessing the structural and supportive system necessary for effective learning outcomes.

The Society Dimension addressed external stakeholder expectations by three crucial elements: Necessities which represents the key English competence required for professional performance in specific vocational domains; Lacks which identifies the gaps between current graduate abilities and industry requirements; and Wants, which reflects the alignment between learner aspirations and labor market demands for English proficiency. The Institution Dimension evaluates the operational capacity of educational providers by three essential areas: Curriculum Design, which examines the organization and sequencing of English language courses; Teaching Materials, which analyzes educators' ability to deliver effective English for Special Purposes instruction; and Administrative Management, which reviews institutional policies, resource allocation, and strategic arrangements for language education.

The model above ensured that the needs analysis was multi-faceted, capturing the interplay between the learner, the workplace and the educational institution.

3.3. Data Collection Methods

This study employed a mixed-method approach to collect data.

3.3.1. Questionnaire Survey

The main quantitative tool was a structured questionnaire developed based on a three-dimensional model. The questionnaire was distributed to participants in three cycles (the first cycle: N = 641; the second cycle: N = 352; the third cycle: N = 348). The questionnaire combined closed-ended questions (such as multiple-choice questions in ability tests and Likert scales for interest levels) with open-ended questions to collect demographic data, measure attitudes, and determine specific needs and preferences. This enabled the research results to be applicable to a wide range of populations.

3.3.2. Semi-structured Interviews:

Qualitative data were collected through interviews with key stakeholders to obtain more in-depth and contextually significant insights, including: 1) English teachers (3 individuals): provided direct descriptions of classroom challenges, student engagement levels, and differences between textbooks and students' backgrounds. 2) English teaching supervisors (1 individual): provided insights into course design limitations, administrative obstacles, and institutional goals. 3) Vice-deans of employment (3 individuals): provided valuable information on industry expectations, employer feedback, and the market value of English proficiency for graduates.

This combination of quantitative and qualitative methods ensured a comprehensive and in-depth understanding of this complex issue, thereby enhancing the reliability and validity of the research results.

3.4. Summary of Main Research Findings

The data collected covering three cycles revealed key gaps and needs, which directly provided a basis for the construction of the new ecosystem:

3.4.1. Gap in Foundational Proficiency and Motivation

A number of students (44.46% in Cycle 1) had a relatively low English proficiency upon enrollment and only passed the basic level test. Their interest in English was mostly at the "average" or "low" level, often due to a lack of clear goals and the perception that the course content was irrelevant to them. The basic situation is shown in Table 1.

Table 1. Gap in Foundational Proficiency and Motivation (Cycle 1 Data).

Aspect	Metric	Value
Proficiency	Students with no passed proficiency tests	44.46% (285/641)
	Students passing only PRETCO-A Level	53.20% (341/641)
	College-to-Bachelor students passing CET-4/6	4%
Interest Level	Students with "Very Interested" attitude	8.9% (57/641)
	Students with "Completely Uninterested" attitude	5.6%(36/641)
	Students with "Normal" interest	44.3% (284/641)

3.4.2. Gap between Curriculum and Learners` Needs

The current curriculum system and accompanying textbooks do not match the students' levels, resulting in learning obstacles for them. Students generally have problems with insufficient skills, and more than half (51.64%) of the students need to improve in all five language skills (see Table 2).

Table 2. Gap between Curriculum and Learners` Needs (Cycle 1 Data).

Aspect	Metric	Valu
Skill Deficiency	Students needing improvement in all five skills (Listening, Speaking, Reading, Writing, Other)	51.64% (331/641)
	Students with a single, clear skill need (e.g., only Speaking)	<3% (10/641 for

3.4.3. Evolution of Learners` Goals

The training goals for students have shifted from being vague and multi-faceted to being highly specific and oriented towards the profession. Initially, the goal was to pass the exams (Cycle 2). As students began to interact with the professional environment (Cycle 3), their focus gradually shifted to the importance of oral skills (61%) and professional terms (for example, medical terms accounted for 23.4%). Relevant information can be found in Table 3.

3.4.4. Demand for Practical and Applied Learning

There is a strong desire to adopt learning methods that can simulate real tasks, such as simulated dialogues (27.8%) and professional vocabulary training (35.4%), which indicates that the teaching approach needs to shift from theory to practice. Relevant information is also listed in Table 3.

Table 3. Evolution of Learner Goals & Demand for Applied Learning (Cycle 3 Data).

Aspect	Specific Need	Value
Skill Focus	Priority for improving Speaking skills	61%
	Priority for improving Listening skills	20.2%
Professional Need	Mastering Medical Professional Terms	23.4%
	Patient Communication skills	22.5%

Support Demand	Academic English & Cross-cultural Communication	18.4% each
	Specialized Medical Vocabulary Training	35.4%
	Simulation Dialogues (e.g., for emergencies)	27.8%

3.4.5. Gap in Institutional Support Structure

The framework of this educational system has numerous problems, including insufficient English class hours, unreasonable arrangements for professional English courses, and the lack of targeted learning support (such as preparation for the CET-4 exam), all of which fail to meet the needs of students and society.

3.4.6. Alignment with Social Need

The relevant data from the enterprises and the subsequent feedback from the students confirm that English proficiency is a key differentiating factor in the job market. The society's demand for graduates is that they should be able to use English in specific professional scenarios, such as communicating with patients and understanding technical instructions.

These findings indicate that to meet the needs of all parties, a fundamental reform rather than minor adjustments to the existing system is required. This is also the starting point for proposing a completely new integrated ecosystem.

4. The Proposed Three-Pillar Ecosystem for Vocational Undergraduate English

This section constitutes the core of the paper. It transforms the research results into a practical framework, which caters to the needs of students, promotes classroom innovation, and facilitates cooperation with enterprises. This framework was designed based on the action research results of Hainan Vocational University of Science and Technology. Details are shown in Figure 2.

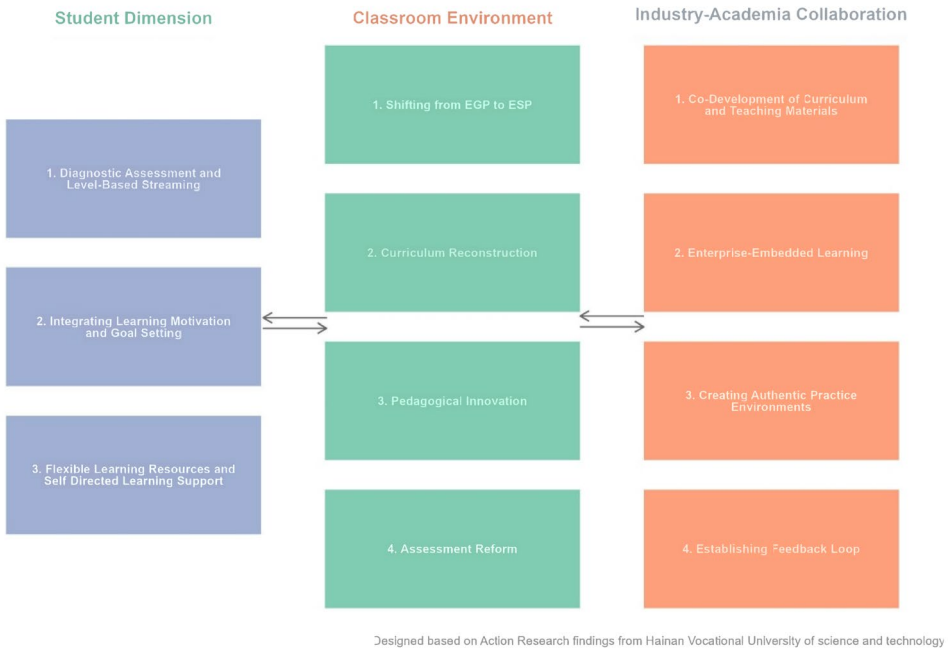

Figure 2. Three-Pillar Ecosystem for Vocational Undergraduate English Education.

Figure 2 presents a comprehensive Three-Pillar Ecosystem model for the reform of vocational undergraduate English education. This integrated framework is based on the data presented by the needs analysis and proposes three interrelated dimensions, which work together to enhance the level of English language education.

The student dimension constitutes the basic pillar, focusing on personalized learning paths. It includes: (1) diagnostic assessment and level-based stratification, which can identify individual skill gaps and provide appropriate stratification arrangements for students; (2) integrating learning motivation and goal setting directly into the curriculum structure to enhance students' engagement and sense of control over learning outcomes; (3) flexible learning resources and self-directed learning support, providing adaptable materials and scaffolds to promote the cultivation of students' autonomous skills; and (4) reform of assessment, shifting from traditional standardized tests to more comprehensive assessment methods to measure actual language application ability.

The Classroom Environment Pillar represents the core of the ecosystem, representing the educational core. It changes the traditional teaching methods. This dimension includes: (1) shifting from general English teaching (EGP) to professional English teaching (ESP), ensuring that the teaching content is relevant to students' professional fields; (2) reconstructing the curriculum through modular courses, focusing on cultivating students' listening/speaking abilities and professional terminology mastery; (3) through innovative teaching models such as task-based learning methods, simulation exercises, and role-playing scenarios, simulating real professional environments; (4) the reform of assessment emphasizes performance-based evaluation, measuring actual language application ability, rather than theoretical knowledge.

The Industry-Academia-Research Collaboration Pillar establishes a key bridge between the educational institution and the demands of the workplace. This dimension includes: (1) jointly developing courses and teaching materials with enterprise partners to ensure consistency with current industry standards and practices; (2) enterprise embedded learning experiences including internships, industry seminars, and lectures by professionals; (3) creating a real working environment and challenges through on-campus simulation laboratories to create a realistic practical environment; (4) establishing feedback mechanisms that systematically incorporate employers' evaluations to continuously adjust and improve educational programs.

The interrelation among these three pillars reveals the methods necessary for effective vocational English education reform. This model emphasizes that sustainable improvement cannot be achieved through isolated intervention measures, but requires simultaneous attention to student needs, classroom innovation, and industry participation. The bidirectional arrows between the pillars indicate continuous feedback and adaptation, forming a dynamic system that can continuously develop as educational and professional demands change.

This ecosystem framework provides a structured but flexible method for implementing action research outcomes, offers a practical roadmap for vocational colleges to develop English courses that truly help students prepare for the language requirements of their chosen careers, while addressing the specific contextual challenges identified in the research.

5. Discussion

The "three-pillar" ecosystem proposed in this study highlights the crucial paradigm shift required for vocational undergraduate English education. The finding indicates that traditional, fragmented approaches are unable to effectively address the complex interactions between students' deficiencies, classroom practice, and industry demands. The shift in students' needs from passing exams to acquiring specific professional communication skills emphasizes the necessity of integrating ESP principles throughout the curriculum.

The strong preference for practical, scenario-based learning models further confirms the need for teaching reforms towards real, task-oriented instructional methods.

The effectiveness of this ecosystem depends on its collaborative design. The student dimension focuses on personalized paths, directly addressing the identified gaps in motivation and proficiency, while the reorganization of the classroom dimension ensures that teaching practices align with learners' preferences and professional requirements. It is crucial that the "industry-university-research cooperation" pillar ensures the continuous relevance and authenticity of the curriculum, establishing a feedback mechanism to prevent the curriculum from becoming disconnected from changing workplace demands. However, implementing this model requires significant commitments from various institutions, including resource allocation, teacher professional development, and ongoing industry partnerships. Future research should explore the long-term effects of this approach, particularly its impact on graduates' employability, workplace performance, and long-term career development in the global technological field.

6. Conclusion

In conclusion, this study proposes a comprehensive three-pillar ecosystem for vocational undergraduate English education that integrates student-centered learning, classroom innovation, and industry-academia-research collaboration. The findings demonstrate that traditional fragmented approaches are insufficient to address the evolving needs of learners and the demands of modern industries. By adopting a holistic framework that emphasizes personalized learning paths, scenario-based instructional methods, and continuous feedback from industry stakeholders, vocational institutions can more effectively cultivate graduates with practical English skills, professional competence, and global employability. The proposed ecosystem not only offers a sustainable model for curriculum reform but also provides a practical roadmap for educators and policymakers to implement evidence-based interventions. Future research should examine the long-term impact of this approach on graduates' career trajectories and its adaptability across diverse vocational contexts.

Funding: This paper supported by the Higher Education Teaching Reform Project of Hainan Province is the outcome of the research project "Action Research on English Demand in Vocational Undergraduate Education" (No.Hnjg2024-168).

References

1. W. Cai, "Action Research on English Demand in Vocational Undergraduate Education," *International Educational Research*, vol. 8, no. 4, pp. p136-p136, 2025.
2. S. Bandyopadhyay, A. Bardhan, P. Dey, and S. Bhattacharyya, "Education Ecosystem: A Chronological Perspective," In *Bridging the Education Divide Using Social Technologies: Explorations in Rural India*, 2021, pp. 43-75.
3. S. Glasscock, "Schools That Learn: A Fifth Discipline Fieldbook For Educators, Parents, and Everyone Who Cares About Education," *Journal of Family and Consumer Sciences*, vol. 93, no. 4, p. 16, 2001.
4. F. Chambers, "A re-evaluation of needs analysis in ESP," *The ESP journal*, vol. 1, no. 1, pp. 25-33, 1980. doi: 10.1016/0272-2380(80)90007-4
5. K. Hyland, "Developments in English for Specific Purposes: A multi-disciplinary approach," *English for specific purposes*, vol. 19, no. 3, pp. 297-300, 2000.
6. W. Butzkamm, and J. A. Caldwell, "The bilingual reform: A paradigm shift in foreign language teaching," *Narr Francke Attempto Verlag*, 2009.
7. J. Meifang, and H. Kunpeng, "Research on the Construction of College English Development Courses Based on the Theory of Demand Analysis," *Frontiers in Educational Research*, vol. 5, no. 18, 2022.
8. S. Wright, and L. Zheng, "English in Chinese higher education: past difficulties, current initiatives and future challenges," *Journal of world languages*, vol. 3, no. 3, pp. 167-183, 2016. doi: 10.1080/21698252.2017.1292989
9. F. Liu, "Analysis of Strategies and Effects of Integrating Real Corporate Cases into Course Teaching: A Case Study of the Introduction to the English Major Course at Ningbo University of Finance and Economics," .
10. X. He, "Construction and Practice of English Multi-modal Teaching System in the Process of Digital Transformation of Vocational Education," *The Educational Review, USA*, vol. 9, no. 4, 2025.

11. S. Kaya, "From Needs Analysis to Development of a Vocational English Language Curriculum: A Practical Guide for Practitioners," *Journal of Pedagogical Research*, vol. 5, no. 1, pp. 154-171, 2021. doi: 10.33902/jpr.2021167471
12. H. G. Widdowson, "Teaching language as communication," *Oxford university press*, 1978. doi: 10.2307/413364
13. H. Zhang, "The Intrinsic Logic and Practical Pathways of Empowering Vocational Education Through Industry-Education Integration: Summary of the Session on Industry-Education Integration for Advancing High-Quality Vocational Education," *World Vocational and Technical Education*, vol. 1, no. 1, pp. 38-54, 2025.
14. S. Kemmis, R. McTaggart, and R. Nixon, "The action research planner: Doing critical participatory action research," *Springer Science & Business Media*, 2013.