

**THE DEVELOPMENT OF A FLIPPED CLASSROOM
MODULE USING PROJECT-BASED LEARNING
FOR A WORKPLACE GENERAL ENGLISH
COURSE IN CHINESE HIGHER
VOCATIONAL COLLEGES**

HAN WEI

SULTAN IDRIS EDUCATION UNIVERSITY

2025

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HAN WEI

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ABSTRACT

The study aims to design a flipped classroom module of project-based learning (FCPBL) for Workplace General English course in Chinese higher vocational colleges. The study employed the design and development research approach involving need analysis, design and development, and implementation and evaluation phases. In the first phase, a survey of 404 students from five colleges was conducted to investigate their English application skills and readiness for FCPBL module. Additionally, semi-structured interviews with 12 English teachers were conducted to investigate their current teaching practices. The findings indicated that students had a moderate level of English proficiency (mean = 2.93) but exhibited a high level of readiness (mean = 3.54). The current English teaching is teacher-centered and lacks workplace-relevant content. These findings highlighted the critical need for FCPBL module to improve students' English proficiency. In the design phase, FCPBL module was developed using Fuzzy Delphi Method. Firstly, the module components were identified through semi-structured interviews with six experts to design Fuzzy Delphi Instrument, which was then distributed to 20 experts to gain consensus on the components. The FCPBL module was then reviewed by five experts, leading to further improvements. In the evaluation phase, a two-group quasi-experiment with pre-test and post-test assessments was conducted to evaluate FCPBL module's effectiveness. A survey was then adopted to assess students' perspectives on the module. The t-test analysis indicated a significant difference between the pre-test and post-test scores of the experimental class ($p < .05$), as well as between the post-test scores of the two classes ($p < .05$). The quantitative data showed that students had positive perspectives on FCPBL module. These findings reveal that FCPBL module is effective in enhancing students' English application skills and recommends its broader implementation across Chinese higher vocational colleges to foster more practical and effective English learning environments.





PEMBANGUNAN MODUL KELAS BERBALIK MENGGUNAKAN PEMBELAJARAN BERASASKAN PROJEK UNTUK KURSUS BAHASA INGGERIS UMUM TEMPAT KERJA DI KOLEJ TINGGI VOKASIONAL DI CHINA

ABSTRAK

Kajian ini bertujuan untuk merancang modul bilik darjah berbalik dengan pembelajaran berasaskan projek (FCPBL) untuk kursus Bahasa Inggeris Umum di kolej vokasional tinggi China. Kajian ini menggunakan pendekatan penyelidikan reka bentuk dan pembangunan yang melibatkan fasa analisis keperluan, reka bentuk dan pembangunan, serta fasa pelaksanaan dan penilaian. Dalam fasa pertama, tinjauan ke atas 404 pelajar dari lima kolej dijalankan untuk menyelidik kemahiran aplikasi Bahasa Inggeris mereka dan kesediaan untuk modul FCPBL. Di samping itu, temubual separa berstruktur dengan 12 guru Bahasa Inggeris dijalankan untuk menyelidik amalan pengajaran semasa mereka. Penemuan menunjukkan bahawa pelajar mempunyai tahap kecekapan bahasa Inggeris yang sederhana (min = 2.93) tetapi menunjukkan tahap kesediaan yang tinggi (min = 3.54). Pengajaran Bahasa Inggeris semasa adalah berpusatkan guru dan kurang kandungan yang relevan dengan tempat kerja. Penemuan ini menekankan keperluan kritikal untuk modul FCPBL dalam meningkatkan kecekapan bahasa Inggeris pelajar. Dalam fasa reka bentuk, modul FCPBL dibangunkan menggunakan Kaedah Fuzzy Delphi. Pertama, komponen modul dikenal pasti melalui temubual separa berstruktur dengan enam pakar untuk merancang Instrumen Fuzzy Delphi, yang kemudiannya diedarkan kepada 20 pakar untuk mendapatkan persetujuan mengenai komponen tersebut. Modul FCPBL kemudian disemak oleh lima pakar yang membawa kepada penambahbaikan selanjutnya. Dalam fasa penilaian, eksperimen kuasi dua kumpulan dengan penilaian ujian pra dan pasca dijalankan untuk menilai keberkesanan modul FCPBL. Satu tinjauan kemudian digunakan untuk menilai perspektif pelajar terhadap modul tersebut. Analisis ujian-t menunjukkan perbezaan yang signifikan antara skor ujian pra dan pasca bagi kelas eksperimen ($p < .05$), serta antara skor pasca bagi dua kelas ($p < .05$). Data kuantitatif menunjukkan bahawa pelajar mempunyai perspektif yang positif terhadap modul FCPBL. Penemuan ini menunjukkan bahawa modul FCPBL berkesan dalam meningkatkan kemahiran aplikasi Bahasa Inggeris pelajar dan mencadangkan pelaksanaannya secara lebih luas di kolej vokasional tinggi di China untuk memupuk persekitaran pembelajaran Bahasa Inggeris yang lebih praktikal dan berkesan.



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LIST OF ABBREVIATIONS

CEFR	Common European Framework of Reference for Languages
COVID	Coronavirus Disease
DDR	Design and Development Research
EFL	English as a Foreign Language
ELL	English Language Learning
FCPBL	Flipped Classroom of Project-based Learning
FDM	Fuzzy Delphi Method
FC	Flipped Classroom
ICT	Information and Communications Technology
ILO	International Labor Organization
LMS	Learning Management Systems
MOOCs	Massive Open Online Courses
PBL	Project-based learning
PCs	Personal Computers
PPT	PowerPoint Presentation
PSA	Present Situation Analysis
Q&A	Questions and Answers
SPSS	Statistical Packages for the Social Science
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
ZPD	Zone of Proximal Development

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CHAPTER 1

INTRODUCTION



1.1 Introduction

The landscape of higher vocational education in China is undergoing rapid development, continually leveraging new growth opportunities as a vital component of the country's broader educational framework. This evolution is bolstered by supportive policies from relevant government entities. The "One Belt, One Road" initiative has further expanded economic development, trade partnerships, and cultural interactions both with neighboring countries and on a global scale. The initiative has also expanded opportunities for advancing English language education in China's higher vocational colleges and for developing English language skills among students. As a result, there is now an increased emphasis on enhancing both English proficiency and technical expertise among these students (Li, 2023).





The swift progress of information technology is reshaping educational methodologies in significant ways, leading to the emergence of innovative, non-traditional teaching methods (Nguyen & Kieuthi, 2020; Cueva & Inga, 2022). Globally, many nations are focusing on driving educational reform and innovation through the integration of information technology (Jia & Gu, 2021). The application of network technology in education has brought about a variety of new teaching models (Young & Moran, 2017; Yin, 2022). As a result of technological advancements, education has shifted from a passive, reactive model to a more interactive and proactive approach (Raja & Nagasubramani, 2018). China's "Educational Modernization 2035" plan, issued by the State Council in 2019, emphasizes the need to harness modern information technology within online learning environments to facilitate the reform of talent development models. It advocates for the exploration of advanced teaching methods, improved instructional organization, and the creation of personalized training programs tailored to student needs (State Council of China, 2019a).

In response to these evolving challenges, the flipped classroom model has emerged as an innovative alternative to traditional teacher-centered approaches. Utilizing information technology, this model transcends the traditional limitations of classroom time and space, transforming the traditional teaching processes and redefining the classroom environment (Bergmann & Sams, 2012; Roehling, 2018; Brewer & Movahedazarhouli, 2019; Erbil, 2020). Implementing this model necessitates that educators adopt innovative strategies and diverse instructional materials to enhance their teaching methods (Flores et al., 2020).





Despite its potential, the application of the flipped classroom model in China requires further refinement and innovation, particularly with the integration of advanced teaching strategies and emerging technologies, to boost students' academic performance and overall skill development (Li et al., 2021). One effective approach that has gained popularity in second and foreign language teaching is project-based learning. This study seeks to integrate project-based learning into the flipped classroom model, designing and developing a tailored module for English language courses. The goal is to significantly improve teaching outcomes and enhance students' ability to apply English effectively.

1.2 Research Background

Technical and Vocational Education and Training (TVET) focuses on imparting knowledge, cultivating positive attitudes, and developing employable skills to promote sustainable development in the workplace (UNESCO, 2001). In China, the vocational education system consists of vocational school education and vocational training. The former includes both secondary and higher vocational school education, which are part of academic qualifications education. The latter encompasses pre-employment training, on-the-job training, re-employment training, and other vocational training types, falling under non-academic qualifications education (Ministry of Education of China, 2022c). Both categories are geared towards nurturing high-quality technical talent, aligning with UNESCO's concept of TVET (State Council of China, 2021; Xu & Lei, 2022).





China has consistently prioritized the development of vocational education, culminating in the establishment of a modern vocational education system. The National Vocational Education Reform Implementation Plan, issued by the State Council of China in 2019, emphasizes that vocational education is as vital as general education, though they serve different purposes. For vocational education, the focus should shift from mere expansion to enhancing quality over the next five to ten years. This shift aims to significantly modernize vocational education, thereby supplying high-quality human resources to bolster economic and social progress and elevate national competitiveness (State Council of China, 2019b). The amendment of the Vocational Education Law of the People's Republic of China in 2022 further elucidates the role and significance of vocational education, describing it as a critical component of the national education system and human resource development. The law highlights its importance in nurturing diverse talent, imparting technical skills, and promoting employment and entrepreneurship, all of which contribute to economic and social development (Ministry of Education of China, 2022c).

In the current context, the Chinese government has financially supported a series of initiatives aimed at advancing high-quality vocational education. In 2020, the government allocated 25.7 billion yuan to this cause, reflecting an 8.4% increase from the previous year. This funding boost was part of the Quality Improvement Plan, which aims to enhance vocational education. Additionally, all provinces have implemented a per-student funding system for secondary and higher vocational colleges, ensuring that no less than 12,000 yuan is allocated per student (Ministry of Finance of China, 2020). In that same year, China was home to approximately 11,500 vocational colleges, collectively enrolling 28.57 million students. Vocational





education plays a crucial role in producing a large-scale workforce with technical skills, providing essential human resource support for the country's economic and social development (Ministry of Education of China, 2020).

The Chinese government has been allocating substantial budgetary resources to implement policies that promote high-quality modern vocational education through the Quality Improvement Plan. In 2020, the government allocated 25.7 billion yuan in special funds, representing an 8.4% increase from the previous year, to boost vocational education investment. Additionally, a funding system has been established in all provinces, providing a minimum of 12,000 yuan per student in secondary and higher vocational colleges (Ministry of Finance of China, 2020). By 2020, China had approximately 11,500 vocational colleges with a total enrollment of 28.57 million students, underscoring vocational education's capacity to produce technical talents on a large scale and support national economic and social development (Ministry of Education of China, 2020).

The Modern Vocational Education System Construction Plan (2014-2020), issued by the Ministry of Education of China along with six other departments, specifies that secondary vocational education is primarily provided by secondary vocational schools, while higher vocational education is mainly offered by higher vocational colleges and applied technical universities (Ministry of Education of China, 2014). This study concentrates on higher vocational colleges, which fall under the supervision of the Department of Vocational and Adult Education within the Ministry of Education of China. The development of higher vocational education in China began in the 1980s (Zhang et al., 2020; Liu & Guo, 2020; Zhu & Shi, 2021). Over the





past four decades, higher vocational education has carved out a crucial role within the national higher education framework, contributing significantly to economic and social progress. It has also established a comprehensive system and mechanism for running vocational colleges (Bie, 2022). By 2021, China had 1,486 higher vocational colleges, enrolling a total of 15.901 million students, representing an 8.94% increase compared to the previous year (Ministry of Education of China, 2022a). According to the 2020 Government Work Report, higher vocational colleges aimed to boost enrolment by 2 million students between 2020 and 2021 (State Council of China, 2020).

Compared to ordinary universities, higher vocational colleges have distinct characteristics, particularly regarding their educational objectives and the goals for talent cultivation (Hou & Sun, 2021). The primary role of higher vocational colleges is to focus on serving societal development and use employment as a key directive. Their aim is to nurture highly skilled professionals suited for roles in production, construction, management, and service sectors (Wu, 2020; Chen, 2021; Xie, 2022). Higher vocational colleges not only emphasize the acquisition of professional knowledge but also prioritize developing students' practical application skills, the ability to solve real-world problems, professional ethics, innovation, and communication skills (Hou, 2020). As such, higher vocational education places a stronger emphasis on the mastery of technical skills, aiming to produce a workforce of high-level skilled professionals who are ready to integrate seamlessly into production environments.





Consequently, English language instruction in higher vocational colleges should align with the colleges' educational responsibilities and talent cultivation goals, focusing on training practical talents capable of addressing real-world challenges to support societal production and development. In today's global landscape, characterized by economic globalization and cultural diversity, the demand for English proficiency is on the rise, driven by China's increasing trade and cultural exchanges with other nations. The ongoing development of international economic integration and China's "One Belt, One Road" initiative underscores the necessity for a substantial number of high-quality, application-oriented technical professionals who possess both advanced professional knowledge and English language skills (Chen & Cai, 2021; Wang, 2023). There is a growing need for professionals with hands-on skills who are also proficient in English (Chang, 2022).



Higher vocational colleges are pivotal in delivering vocational education in China and play an essential role in supporting the "One Belt, One Road" initiative. As Chinese enterprises expand their investments in countries along these routes, there is a rising demand for international talents who are not only proficient in language but also familiar with local economies, societies, and cultures, alongside their expertise in operational technologies (Song, 2023). Modern society's various industries and roles increasingly involve international communication, raising employers' expectations for the English proficiency of vocational college graduates (Jiang, 2019). Many job positions now require vocational graduates to have strong English application skills, and employers favor students who demonstrate comprehensive competencies, thus raising the bar for students in higher vocational colleges (Jin & Liao, 2023). To enhance the employability of vocational college graduates, it is crucial to ensure that





students develop both professional comprehensive skills and practical English abilities (Y. Zhang, 2021).

The Ministry of Education of China established three basic requirements for higher vocational English courses in 1993, 2000, and 2009, reflecting the evolution of English language education in higher vocational colleges. However, the requirements developed in 2009 have become inadequate in addressing the current needs, highlighting the urgency for updated vocational English curriculum standards (Wen & Zhang, 2021). To enhance the reform of English courses in higher vocational colleges and improve the quality of talent training, the Ministry of Education introduced the "English Curriculum Standards in Higher Vocational Education (2021)," which fill the gap in English curriculum standards for this educational sector and clarify the objectives and tasks of English courses (Bai, 2021; Teng & Li, 2022).



According to the Standards, the English curriculum comprises a basic module and an extended module. The basic module includes the Workplace General English course, while the extended module features the Career Promotion English, Academic Promotion English, and Quality Promotion English courses. These are tailored for students of varying majors, academic levels, and interests upon completing the basic module (Ministry of Education of China, 2021c). This study concentrates on the Workplace General English course, a compulsory basic course for all majors during the first and second semesters in higher vocational colleges. The course aims to develop students' English application skills for future workplace settings, emphasizing competencies such as workplace communication, cross-cultural communication, language and cognitive development, and autonomous learning (Ma et al., 2021). The





Workplace General English course is structured around typical English communication scenarios in workplace environments, such as welcoming visitors, participating in job interviews, and introducing companies, to help students master common English usage in general workplace contexts (Guo, 2019). The vocational education perspective indicates that English courses should focus on basic communication skills necessary for future employment rather than achieving high-level English proficiency (H. Zhang, 2021).

Nevertheless, English teaching in China's higher vocational education faces significant challenges, struggling to integrate effectively into vocational education processes. This gap hinders students' development of English application skills and fails to meet enterprises' needs for versatile, application-oriented talents (Wei, 2022).

A key issue is that English teaching models and content in higher vocational colleges lag behind the evolving demands of the industry, creating a mismatch between students' abilities and employer expectations (Shao, 2020; Liu & Wang, 2021). The traditional English teaching approach in higher vocational colleges falls short of meeting society's demand for multi-skilled professionals, resulting in graduates lacking essential English language competencies for their careers (Chen, 2023). To address this, higher vocational colleges should involve industry representatives and educational experts in reforming the English curriculum, including teaching models and strategies, to enhance students' practical English application skills and align with diverse industry needs (Hu, 2018; Du, 2021).

The Workplace General English course in higher vocational colleges focuses on developing students' English skills that are essential for future workplace settings.





However, the traditional teacher-centered teaching model falls short of fulfilling the current demands for talent training. Consequently, a new teaching model is necessary to better cultivate students' English application skills for workplace contexts. In this evolving landscape, the concept of English language education requires educators to innovate teaching models and methodologies continually. The goal is to strengthen students' listening, speaking, reading, and writing skills while enabling them to apply what they have learned practically, thereby achieving the objectives of English language education (Ren, 2023).

The flipped classroom model combined with project-based learning represents a novel idea in education. Both concepts are currently gaining significant attention in the field. The flipped classroom method reconfigures the allocation of time both inside and outside the classroom. Students are expected to independently review and study materials provided by the instructor before class. This approach allows class time to be dedicated to collaborative exploration and interactive discussions through group activities, facilitating a deeper understanding and application of the knowledge (Bergmann & Sams, 2012; Roehling, 2018; Erbil, 2020). The flipped classroom is a pedagogical framework rather than a specific set of teaching strategies or methods. Effective teaching models must incorporate targeted strategies to achieve optimal teaching outcomes (Li, 2018).

Project-based learning has gained widespread adoption globally as a teaching strategy due to its effectiveness in making learning more engaging and helping students develop skills crucial for future professional success (Hidayati et al., 2023). This study focuses on the Workplace General English course, which is part of English





language education. Project-based learning, which embodies the principles of learner-centered education, was introduced into English language teaching around thirty years ago (Hedge, 1993). Furthermore, project-based learning is recognized for its effectiveness in fostering essential 21st-century skills such as collaboration, critical thinking, innovation, problem-solving, decision-making, and communication in real-world contexts, thereby enhancing students' English language proficiency (Kavlu, 2015; Gras-Velázquez, 2020).

Project-based learning offers numerous benefits when applied to second and foreign language education. This approach has highlighted the importance of developing students' English application skills for future professional settings, particularly in the Workplace General English course. One of the most frequently noted advantages of project-based learning is its impact on improving language skills. It enhances listening, writing, reading, and speaking abilities by naturally integrating these skills and providing learners with ample opportunities for meaningful language practice and use (Beckett & Miller, 2006; Poonpon, 2017; Vidosavljević & Vidosavljević, 2018). Project-based learning is widely employed to support language acquisition across various levels and contexts, giving learners more chances to use the language in practical, real-world situations (Sirisrimangkorn, 2021; Zaafour & Salaberri-Ramiro, 2022). Additionally, several empirical studies have validated the effectiveness of project-based learning in enhancing English language learning (Bakar et al., 2019).

As such, the integration of the flipped classroom model with project-based learning combines the core principles of both approaches, leveraging the benefits of





each (Listiqowati et al., 2022). This hybrid method effectively enhances higher vocational students' English application skills, representing an improvement over traditional teaching method. By moving away from the traditional teacher-centered approach, the flipped classroom model encourages students to independently engage with project-related content before class, using information technology. This shift allows for more class time to be dedicated to active project work, thereby fostering students' problem-solving abilities and practical application skills (Wang, 2019; Wang, 2020; Ma & Wang, 2020).

1.3 Problem Statement

Economic development relies heavily on high-quality talent, which is crucial for fostering innovation and growth. As China's economy evolves, there is a heightened need for skilled personnel due to the optimization and adjustment of industrial structures. In the context of informatization and industrialization, enterprises demand increasingly comprehensive skills from frontline production workers, especially in high-tech industries. Consequently, higher vocational colleges play a critical role in cultivating these high-quality talents (Niu & Xu, 2023). As such, promoting the innovation and development of talent-training mode in higher vocational colleges can provide high-quality talents guarantee for the transformation and development of regional industries.

The primary objective of higher vocational education is to develop skilled professionals with strong practical abilities, hands-on experience, and problem-solving skills tailored to meet the needs of businesses (Zhu & Gong, 2020). English





language teaching plays a crucial role in achieving this objective and should align with the broader goals of higher vocational education (Li, 2021). The English language curriculum in vocational education must reflect the specific characteristics of vocational training (Chang, 2021). Therefore, English courses should prioritize workplace communication and enhance students' English application skills to enable them to effectively participate in both everyday interactions and job-related activities (Zhao, 2022).

The Workplace General English course should focus on using English in professional settings, emphasizing comprehensive skills training in listening, speaking, reading, writing, and translation. Instructors are encouraged to select topics that are relevant to students' personal lives and career paths, create realistic communication scenarios, and help students translate their English knowledge into practical language skills (Ministry of Education of China, 2021c). Consequently, the Workplace General English course highlights the importance of equipping students with the ability to use their listening, speaking, reading, writing, and translation skills to effectively complete tasks in a workplace environment.

Despite the strategic importance of higher vocational education, there remains a significant gap between the English application skills of vocational college graduates and the expectations of employers (Liu, 2015; Y. Li, 2018; Wang, 2021; Chang, 2022). Many enterprises view graduates from higher vocational colleges as underperforming in professional knowledge, practical ability, and English application skills, thus failing to meet employment needs (Liu & Du, 2019). Employers express





dissatisfaction with graduates' English listening and speaking skills and overall language application abilities (Zhang & Zhou, 2018; Zhao, 2019).

A key factor contributing to this gap is the traditional teacher-centered approach prevalent in many higher vocational colleges, as well as students' weak foundation in the English language.

Firstly, due to constraints on teaching time and the need to adhere to the syllabus and maintain progress (Ma, 2023), English instructors often rely on traditional, lecture-based method with outdated teaching philosophies (C. Liu, 2021; Chen & Cai, 2021; Cui & Xiao, 2023; Zhang, 2023). They frequently spend the majority of class time delivering explanations and focusing on theoretical aspects of English, rather than addressing the actual learning outcomes of students. This approach undermines student engagement and autonomous learning, leading to insufficient student involvement and diminished learning outcomes (Shu & Kong, 2021; Wu, 2021; Liu, 2022; Zhang, 2019).

Although the traditional cramming teaching method enables instructors to effectively manage and evaluate classroom instruction (Wang, 2018), it often leads to a lack of student engagement and interaction, resulting in a monotonous learning environment. This lack of dynamism negatively impacts students' interest, initiative, and enthusiasm for learning English (Chen, 2019; Zhao, 2020; Deng, 2021; Zhou, 2021). When students are less interested and enthusiastic, their learning outcomes tend to be less favorable (Huang, 2021; Xiao, 2023). Many students face limited opportunities for practical language use, which hampers their development of English





communication skills and their ability to address problems in English in a professional setting (G. Chen, 2018; X. Chen, 2021; Ma, 2023). Furthermore, this traditional approach often overlooks students' individual differences, creativity, and unique attributes, leading to diminished motivation and hindering the growth of their independent and creative thinking abilities (Liu, 2020).

Secondly, the diverse enrollment sources and lower admission scores in higher vocational colleges result in varying student abilities, with many students having a weak foundation in English and a lack of interest (Zhu, 2020; Zhou, 2023). Students often exhibit low independent learning ability, unclear motivation, and lack of confidence (Li, 2020; Xiao, 2022). Even students with a strong learning foundation may struggle with English listening and speaking skills, hindering effective communication (Ma, 2023).



The introduction of the Workplace General English course within the “English Curriculum Standards for Higher Vocational Education (2021)” aims to enhance students' practical English application skills. However, effective implementation requires innovative teaching methods to bridge the gap between classroom learning and workplace demands. English instructors should actively explore new strategies for reforming English teaching (Ma & Chang, 2020). This innovation should encompass both in-class and out-of-class practices as crucial components of language teaching activities, with an emphasis on enhancing students' English application skills (Xiao et al., 2021).





Innovative teaching models such as the flipped classroom and MOOCs have become focal points in English language teaching reform. The flipped classroom model shifts some learning processes outside the classroom, dedicating classroom time to promoting, enhancing, and deepening student learning. This model emphasizes motivating learners and cultivating autonomous learning abilities (Hoque et al., 2023). To maximize learning outcomes, the flipped classroom model can be combined with various teaching strategies (Fisher et al., 2020; Mayer et al., 2022). Project-based learning as a teaching strategy, has been widely adopted in second and foreign language teaching.

Project-based learning encourages students to explore real-world issues, gain knowledge and skills, and improve their critical thinking, English language proficiency, and self-confidence (Mujiono et al., 2023). This strategy provides knowledge and tasks for students to explore independently before class, allowing for deeper understanding through in-class discussions and interactions. This approach allows students to use English for practical communication based on the projects (Wang, 2019; Wang, 2020). Project-based learning addresses unclear teaching objectives in the flipped classroom model, while the flipped classroom compensates for the lack of theoretical explanation in traditional project-based learning (Yu, 2020). The combination of project-based learning with the flipped classroom model enhances the functional use of language. Authentic language projects create a genuine communicative need, enabling learners to apply their language skills and cultural understanding in simulated workplace scenarios, thereby improving their English application abilities (Deng, 2019).





Despite the potential of the flipped classroom module of project-based learning (FCPBL), there are still research gaps. Firstly, the research on the FCPBL module in China has been primarily focused on junior high schools and universities, with relatively limited focus given to higher vocational colleges. Secondly, most studies have integrated project-based learning into the flipped classroom for module construction at the theoretical level. They then applied this model to a course for simple practice application. Such design of the FCPBL module is only based on literature review. Nevertheless, the development of the module has not been verified by experts in the field, which reduces its authority, validity, and rationality. Thirdly, there is a lack of studies which integrate the FCPBL module with English language teaching (Ba, 2017; Zhou, 2023). There is limited research on the FCPBL module in relation to the Workplace General English course. This is because the Workplace General English course was introduced for the first time in the "English Curriculum Standards in Higher Vocational Education (2021 Edition) and officially issued by the Ministry of Education of China in 2021. The standards offered overall framework and objectives, but they did not provide detailed and ready-to-use teaching modules. Teachers still require specific resources and structured lesson plans to implement the standards effectively. Due to the late formulation of the standards, the research on the teaching model and design for this course has just commenced and is still in its initial stages (Ren & Li, 2023). Consequently, the design of an appropriate module, such as the FCPBL module for this course, can facilitate the conversion of high-level standards into tangible and practical teaching practices which can be readily utilized in the classroom.





This study seeks to address this gap by developing and implementing a FCPBL module tailored for the Workplace General English course. The research will involve a thorough needs analysis, followed by the design, development, and evaluation of the module. By providing a structured framework for integrating FCPBL into English teaching, this study aims to offer practical insights for educators and contribute to the broader discourse on vocational education reform.

In summary, this study will explore how the FCPBL model can enhance English language education in higher vocational colleges, ultimately aiming to produce graduates who are well-equipped to meet the linguistic and professional challenges of the modern workplace.



1.4 Purpose of the Study

The primary purpose of this study is to design and develop a flipped classroom module of project-based learning (FCPBL) specifically for the Workplace General English course in Chinese higher vocational colleges. The module aims to offer a practical guide on implementing the FCPBL approach to enhance students' English application skills for future workplaces. This research focuses on the Workplace General English course, a compulsory subject in Chinese higher vocational colleges, to develop and apply the module. The development of the module involves gathering insights from experts in Workplace General English and is structured around a three-phase process based on the design and development research (DDR) approach (Richey & Klein, 2007). These phases are Needs Analysis Phase, Design and Development Phase, and Implementation and Evaluation Phase.





1.5 Objectives of the Study

For the purpose of filling in the study gaps indicated above, the main objective of this study is to design a FCPBL module specifically for English language learning in Chinese higher vocational colleges. The focus is on developing this module for the Workplace General English course, which is a compulsory course offered to students across all majors during the first and second semesters in Chinese higher vocational colleges. The study is organized into three distinct phases, each with specific objectives:

- 1) To investigate the current level of English application skills of higher vocational students and their readiness for the FCPBL module based on their views;

To investigate the current teaching practices of English teachers in higher vocational colleges based on their views.

- 2) To design and develop the FCPBL module for Workplace General English course in Chinese higher vocational colleges based on experts' opinions and consensus.
- 3) To evaluate the effectiveness of the FCPBL module based on students' performance.

1.6 Research Questions

According to the problem statement and research objectives, the research questions can be formulated for each phase of the design and development research (DDR) approach as follows:





Phase 1: Need Analysis Phase

- 1) What are the higher vocational students' perspectives on their level of English application skills?
- 2) What are the higher vocational students' readiness to use FCPBL module if it is applied to Workplace General English course?
- 3) What are the teachers' current teaching practices on English course in Chinese higher vocational colleges?

Phase 2: Design and Development Phase

- 1) Based on the experts' consensus, what are the teaching objectives that are suitable to develop the FCPBL module for Workplace General English course?
- 2) Based on the experts' consensus, what are the general teaching content that are suitable to develop the FCPBL module for Workplace General English course?
- 3) Based on the experts' consensus, what are the instructional strategies that are suitable to develop the FCPBL module for Workplace General English course?
- 4) Based on the experts' consensus, what are the learning resources that are suitable to develop the FCPBL module for Workplace General English course?
- 5) Based on the experts' consensus, what are the learning platforms that are suitable to develop the FCPBL module for Workplace General English course?



- 6) Based on the experts' consensus, what are the evaluation strategies that are suitable to develop the FCPBL module for Workplace General English course?

Phase 3: Implementation and Evaluation Phase

- 1) Is the FCPBL module effective for improving higher vocational students' English application skills?
- 2) What are the higher vocational students' perspectives after the adoption of the FCPBL module?

1.7 Hypothesis of the Study

This study investigates the impact of the FCPBL module on the English application skills of higher vocational students in the Workplace General English course, comparing their performance before and after the implementation of the module. The hypotheses for this research are as follows:

Null Hypothesis (H0): There is no significant difference in English application skills between students in the experimental class who use the FCPBL module and those in the control class who receive traditional instruction.

Alternative Hypothesis (H1): There is a significant difference in English application skills between students in the experimental class who use the FCPBL module and those in the control class who receive traditional instruction.



1.8 Rationale of the Study

The rationale for this study is grounded in several key areas: Chinese higher vocational colleges, the Workplace General English course, the flipped classroom module of project-based learning, and the design and development research (DDR) approach.

Firstly, this research aims to equip graduates from Technical and Vocational Education and Training (TVET) programs not only with specialized technical skills but also with essential soft skills valued by employers, such as effective communication, negotiation, teamwork, creativity, critical thinking, practical application, and problem-solving abilities (UNESCO, 2015). In Chinese higher vocational colleges, the focus must shift towards enhancing students' employability by fostering their overall development, building a well-rounded knowledge base, and cultivating cultural awareness. This approach is intended to elevate students' comprehensive vocational capabilities beyond mere technical proficiency (Ministry of Education of China, 2015). This objective aligns with UNESCO's expectations for TVET graduates.

China has historically prioritized vocational education and has recently advanced modern vocational training. The National Vocational Education Reform Implementation Plan, released by the State Council of China in 2019, emphasizes a shift from merely expanding vocational education to enhancing its quality over the next 5 to 10 years. This shift aims to bolster economic and social development and boost national competitiveness (State Council of China, 2019b). According to 2020 data, China had 11,500 vocational colleges with 28.57 million enrolled students.





Vocational education plays a crucial role in training a large number of technical professionals and supporting national economic growth (Ministry of Education of China, 2020). Employment rates for vocational college graduates have remained high, with those from higher vocational colleges maintaining a stable employment rate of approximately 90% within six months, even reaching 84.23% in 2020 despite the COVID-19 pandemic (Ministry of Education of China, 2021d). This indicates an increasing demand for vocational graduates and reflects a growing need for skilled professionals proficient in English as domestic businesses expand globally (S. Chen, 2018). Thus, enhancing both comprehensive professional skills and practical English abilities is crucial for improving the employability of vocational college graduates (Zhang, 2021).



Despite efforts, the English application skills of vocational graduates often fall short of employer expectations (Liu, 2015; Y. Li, 2018; Wang, 2021; Chang, 2022). A primary reason for this discrepancy is that the current English teaching models and curricula in higher vocational colleges are not adequately aligned with the evolving demands of the job market (Shao, 2020; Liu & Wang, 2021). This misalignment results in students struggling with practical English language tasks relevant to their future roles, leading to lower societal and employer recognition of their English proficiency. Thus, there is a pressing need to enhance English application skills for future workplaces by designing projects based on real-world English communication scenarios and strengthening students' foundational English knowledge (Wu, 2018; Chang & Wang, 2020; Dai, 2020). Such an approach would improve the professionalism and relevance of the teaching (W. Li, 2018).





The Workplace General English course, which is mandatory for all first- and second-semester students across various majors in higher vocational colleges, is selected as the focus of this study. The current lack of emphasis on practical English skills highlights the need for a more effective teaching module that can better prepare students for future workplace demands.

Additionally, the State Council of China's 2019 publication, China's Educational Modernization 2035, emphasizes the integration of modern information technology and innovative teaching models to enhance talent training. It calls for advanced teaching strategies, improved organizational methods, and personalized training programs tailored to students' needs (State Council of China, 2019a). English educators in vocational colleges are encouraged to actively explore and implement innovative teaching approaches to align with these recommendations (Ma & Chang, 2020).

As an innovative teaching model for the traditional teacher-centered model, flipped classroom has broken through the space-time barrier of the traditional classroom, transformed the traditional teaching process and practice, and redefined the school classroom using information technology (Bergmann & Sams, 2012; Roehling, 2018; Erbil, 2020). Simply put, flipped classroom is a way to organize teaching without involving specific teaching strategies and methods (Wang & Li, 2018). As such, the teaching organization of flipped classroom must be organically combined with other specific teaching strategies. Some of these are project-based method, problem-solving learning strategy, discovery learning and autonomous





learning can be integrated into the teaching process of flipped classroom (Ma et al., 2015).

Thus, the flipped classroom approach combined with project-based learning represents an innovative educational idea. By incorporating project-based learning, students engage with real-world projects and develop their knowledge and skills through collaborative inquiry (Krauss & Boss, 2013; Chiu, 2020; H. Chen, 2021). Integrating this with the flipped classroom model shifts away from the traditional teacher-centered approach, allowing students to independently acquire project-related knowledge using technology before class. This approach enables more in-class time for students to work on projects, thereby enhancing their problem-solving and practical application skills (Wang, 2019; Wang, 2020; Ma & Wang, 2020).



To date, there has been no research on applying the flipped classroom model with project-based learning specifically to the Workplace General English course in Chinese higher vocational colleges. This gap highlights the need for guidance on implementing this innovative teaching strategy, underscoring the importance of an instructional design framework.

Subsequently, this study adopts the design and development research (DDR) methodology as proposed by Richey and Klein (2007). The DDR approach focuses on establishing a practical basis for developing instructional and non-instructional products and models, enhancing or creating new development frameworks (Richey & Klein, 2007). DDR can be classified into two main types: product and tool research, and model research (Richey & Klein, 2007; Siraj et al., 2013). Previous applications





of DDR have included instructional designs and interventions such as educational products, programs, materials, and strategies (Hirumi et al., 1994; Peffers et al., 2007; Hung et al., 2007; Sahrir et al., 2012).

This study utilizes the product and tool research type of DDR, focusing on the design, development, and evaluation of a specific educational product. Thus, employing the DDR approach is well-suited for achieving the objective of designing and developing a flipped classroom module of project-based learning (FCPBL) for use in Chinese higher vocational colleges.

1.9 Operational Definition

Vocational Education in China — Vocational education encompasses educational activities designed to provide learners with professional ethics, scientific and cultural knowledge, technical skills, and other competencies necessary for career development. It plays a crucial role in the national education system and human resources development by cultivating diverse talents, preserving technical skills, and supporting employment (Ministry of Education of China, 2022c). Vocational education is equally important as general education, though they serve different purposes (State Council of China, 2019b).

Vocational Education System in China — The vocational education system is divided into two main components: vocational school education and vocational training. Vocational school education includes secondary and higher vocational schooling, which is part of academic qualification education. In contrast,





vocational training involves pre-employment, on-the-job, and re-employment training, which falls under non-academic qualifications education (Ministry of Education of China, 2022c).

Higher Vocational Colleges in China — Higher vocational education is primarily provided by higher vocational colleges and applied technical universities (Ministry of Education of China, 2022c). Higher vocational colleges are managed by the Department of Vocational and Adult Education within the Ministry of Education of China. Their main objective is to develop skilled professionals who possess both operational skills and practical abilities needed across various industries, including production, construction, management, and services (Ministry of Education of China, 2021b). As of 2021, China had 1,486 higher vocational colleges with a total enrollment of 15.901 million students (Ministry of Education of China, 2022a).



Workplace General English Course — This mandatory course, offered during the first and second semesters to students across all majors in higher vocational colleges, focuses on developing English application skills relevant to typical workplace scenarios. It aims to help students convert their English language knowledge into practical application skills by emphasizing frequently used English terms and expressions necessary for future professional environments. The course includes training in listening, speaking, reading, writing, translation, and other essential language skills (Ministry of Education of China, 2021c).

Project-Based Learning — Project-based learning is an instructional strategy that allows students to build knowledge and enhance their skills through long-term,





open inquiry projects based on carefully crafted tasks and real-world scenarios (Dilekli, 2020). In this study, project-based learning involves students engaging in group-based, extended inquiry activities centered around real-world projects related to common workplace situations such as job interviews, visitor reception, and meeting arrangements. Students complete a series of tasks including design, planning, decision-making, implementation, achievement presentation, and communication to improve their English application skills and address the needs of future workplaces.

Flipped Classroom — The flipped classroom model involves students engaging with new materials and information provided by instructors outside of class time and using classroom sessions to deepen their understanding through collaborative activities (Roehling, 2018; Yeboah, 2020). In this study, the flipped classroom is organized into three stages: before class, during class, and after class. Prior to class, teachers design projects based on course content, and students independently study materials such as videos, PPT presentations, online tests, and texts provided by the instructor via an online platform to understand the project's content and requirements. During class, students work in groups to discuss and present their project plans, with teachers offering guidance and feedback to enhance their understanding of project execution. Projects may be conducted either in the classroom or externally, depending on their nature. After completing the projects, students present their results in class, and the projects are evaluated by the teacher, peers, and group members.

Modules — In modern educational technology, modules are defined as organized collections of instructional materials that serve various purposes such as





teaching resources, instructor substitutes, assessment tools, and reference materials for students (Husna et al., 2021). Modules are designed to facilitate independent learning by providing clear, comprehensible materials that students can use in place of direct teacher instruction. They include appropriate learning materials and activities tailored to students' knowledge levels. As assessment tools, the questions within each module help students gauge their understanding, while the reference materials assist in clarifying concepts. In this study, the module is designed on the basis of the following components: teaching objectives, teaching content, instructional strategies, learning resources, learning platforms, and evaluation strategies.

English Application Skills — These skills involve the integration of language knowledge and abilities within specific contexts and include three core competencies: extensive reading ability, effective language expression, and cross-cultural communication (Gu et al., 2019). In this study, English application skills refer to the capability to perform tasks and resolve practical issues in workplace scenarios using English listening, speaking, reading, writing, and translation skills.

1.10 Limitations of the Study

The following limitations of the study are presented. Firstly, due to the constraints of the study conditions, only students from one higher vocational college in Gansu Province, China, were selected as samples for this study to evaluate the effectiveness of the FCPBL module in improving higher vocational students' English application skills. Due to the limitation of samples selected, the study probably may not be able to





provide a more sufficient empirical reference for the suitability of the FCPBL module in all higher vocational colleges in China.

Secondly, the study was conducted within a relatively short timeframe of the FCPBL module's implementation period, which encompassed merely four 45-minute weekly face-to-face sessions spanning eight weeks. This may have limited the extent and depth of knowledge transfer, posing difficulties in ensuring that participants attain a comprehensive grasp and proficiency in the core concepts of the FCPBL module within such a condensed timeframe.

Thirdly, this study only focuses on Workplace General English course of high vocational colleges. The design and development of the FCPBL module is context-specific, and therefore the module may not be suitable for other subjects or courses.



1.11 Significance of the Study

The study aims to develop and implement a flipped classroom module of project-based learning (FCPBL) tailored for the Workplace General English course in higher vocational colleges, enhancing students' English application skills and bridging the gap between graduates' competencies and employer expectations. Based on the problem statement, the findings of this study hold substantial importance for advancing relevant theories, benefiting higher vocational college students, teachers, and the course itself.





Firstly, while research on project-based learning has seen considerable development both domestically and internationally, and the flipped classroom model has gained prominence due to its use of micro-video technology, there is a notable gap in studies that integrate project-based learning with the flipped classroom approach. Most research on the integration of flipped classroom with project-based learning has been conducted at the junior high schools and university in China, with limited exploration of its application in higher vocational colleges, particularly for the Workplace General English course. This study addresses this gap by designing and developing a flipped classroom module of project-based learning (FCPBL). The results contribute to the theoretical framework of the flipped classroom model, expand practical applications, and offer valuable insights into integrating flipped classroom teaching in project-based contexts.



Secondly, the FCPBL module developed in this study is designed for the Workplace General English course, effectively enhancing students' English application skills in real workplace environments. Traditional teacher-centered teaching method often fail to stimulate students' interest and initiative, resulting in inadequate listening, speaking, and practical application skills. The FCPBL module engages students in project-based tasks, enhancing their communication skills in English, fostering independent learning, and developing teamwork abilities, thus better aligning their skills with workplace requirements.

Thirdly, the development and implementation of the FCPBL module align with the National Vocational Education Reform Implementation Plan, which emphasizes deepening school-enterprise cooperation and innovating talent training





models (State Council of China, 2019b). By incorporating experts consensus, this study ensures the module design meets the practical needs of higher vocational education, offering a replicable module for English curriculum reform in other vocational colleges. The module's course content, teaching strategies, learning resources, and assessment methods provide actionable guidelines for improving teaching quality in vocational education.

Next, the implementation of the FCPBL module not only benefits students, but also encourages a shift in teachers' roles from knowledge transmitters to learning facilitators and problem-solvers. This shift prompts teachers to reflect on their teaching practices, enhance their teaching skills, and foster professional growth. This study provides vocational English teachers with specific methods and resources for implementing the FCPBL module, supporting their teaching reforms and offering empirical evidence for future educational research.

Finally, through the design and implementation of the FCPBL module, this study fundamentally innovates the content, sequence, and logical structure of the traditional English course. The module emphasizes practical language use in real scenarios and task settings, enhancing the relevance and effectiveness of English instruction. This innovation not only offers a new teaching model for the course but also provides robust support for curriculum development and instructional design in higher vocational education.





1.12 Chapter Summary

This chapter begins with a concise overview of the study and then delves into its background from five perspectives: the rapid advancement of vocational education in China, the evolution of higher vocational colleges, the current status of the Workplace General English course, the expectations of enterprises regarding students' English proficiency, and the need for reform in English courses within higher vocational colleges. It also introduces the concept of the flipped classroom model combined with project-based learning. Following this, the chapter presents a problem statement that identifies the main reasons for the disparity between the English application skills of higher vocational college graduates and the requirements of employers. These reasons include the traditional teacher-centered approach, inadequate teaching content related to workplace scenarios, and students' insufficient English language foundation. The problem statement outlines the study's general aim: to design and develop a flipped classroom module based on project-based learning (FCPBL) for the Workplace General English course in higher vocational colleges in China. The chapter then details the research objectives and questions that guide the development of the FCPBL model. It clarifies the study's rationale and defines key concepts within the context of the research for improved understanding. The limitations of the study are discussed, focusing on sample selection, course specifics, and methodology. Finally, the chapter highlights the significance of the study from five perspectives: theoretical expansion, benefits to higher vocational college students, implications for vocational colleges, support for vocational English teachers, and enhancements to the course itself.

