

# Need Analysis for Developing a Hybrid Flipped Classroom and Project-Based Learning to Enhance Proficiency of Applying English Language Skills of Chinese Higher Vocational Students

Wei Han<sup>1</sup> & Mahizer Hamzah<sup>1</sup>

<sup>1</sup> Faculty of Human Development, Universiti Pendidikan Sultan Idris, Tanjung Malim, Perak, Malaysia

Correspondence: Wei Han, Faculty of Human Development, Universiti Pendidikan Sultan Idris, Tanjung Malim, Perak, Malaysia.

doi:10.56397/RAE.2024.02.06

## Abstract

The objective of this study is to comprehensively investigate the current state of proficiency of English language skills among higher vocational students and to explore the need for designing and developing a hybrid module of flipped classroom and project-based learning. Through questionnaires and semi-structured interviews, the study found that students in higher vocational colleges have difficulties in listening, speaking, reading and writing, with listening and speaking being the most challenging skills. Due to students' weak English proficiency, instructors recommended the use of innovative teaching methods to improve their practical application skills. Therefore, it is recommended to develop a hybrid module that combines flipped classroom and project-based learning to enhance students' proficiency in applying English language abilities and enhance teaching effects.

**Keywords:** need analysis, flipped classroom, project-based learning, proficiency of English language skills, Chinese higher vocational students

## 1. Introduction

China has always placed significant emphasis on the advancement of vocational education and has made strides in modernizing it in recent years. Higher vocational colleges differ from universities in terms of their educational function and objectives for training students (He, 2016). The primary responsibility of higher vocational colleges is to nurture high-quality skilled talents required by industries such as production, construction, management, and service by serving development and promoting employment (Chang, 2021; Zhao, 2023). English language teaching in higher vocational colleges should also serve the talent cultivation objectives of such institutions. The focus should be on improving students' practical application abilities as well as cultivating their English communication and cross-cultural communication skills (Liu, 2018; Kan, 2021; Li & Ahmad, 2022). This will better equip them for their future careers.

China's One Belt, One Road initiative, as well as the rapid development of international economic integration, have resulted in an increasing demand for high-quality, application-oriented technical talent across all sectors, requiring individuals to possess advanced professional knowledge and proficiency in English (Li & Xue, 2021). In contemporary society, many industries and job positions require international communication skills. As a result, employers are increasingly demanding that vocational college graduates possess strong English language skills (Zhang & Zhang, 2017; Jiang, 2019). In many job positions, higher vocational graduates are required to possess higher and higher English application skills, and employers are increasingly looking for students with comprehensive qualifications, which raises the expectations for students in higher vocational colleges (Jin & Liao, 2023). The coexistence of students' professional comprehensive skills and English practical skills is thus necessary in order to improve the employment rate of vocational college graduates (Zhang, 2021).

In 2021, the Ministry of Education of China released the “English Curriculum Standards in Higher Vocational Colleges (2021 version)” to enhance the quality of talent training in higher vocational colleges and further advance the ongoing reform (Zhu & Yao, 2022; Li, 2023). The standards clarify the essence and objectives of English courses within higher vocational education, effectively addressing a previously existing void in the domain of English curriculum standards (An, 2022; Sheng, 2023). The standards place a major emphasis on the importance of applying language skills in the workplace setting, and emphasize the importance of comprehensive training in the four skills of listening, speaking, reading, and writing for students (Ministry of Education of China, 2021). To help students develop practical language skills, it advocates the choice of topics closely linked to their lives and employment needs in order to create communicative situations that can assist them in transforming their English language knowledge into practical proficiency (Ministry of Education of China, 2021). Therefore, English instructors need to design instructional scenarios and tasks that closely resemble those used in the industry, helping students learn by doing and enhancing their language application skills in the professional workplace (Chang, 2021).

## 2. Problem Statement

English courses in higher vocational colleges currently follow a traditional teacher-centered teaching model (Su, 2023). This model may overemphasize the teacher’s dominant role in the classroom and ignore students’ initiative and creativity, potentially suppressing their learning motivation and initiative, which could negatively impact the effectiveness of teaching and learning (Hu, 2021; Lv, 2024). During English language teaching, some teachers exclusively concentrate on explaining theoretical knowledge, such as memorizing words and understanding grammar rules, while disregarding the development of students’ language skills, leading to inadequate exercise of their listening, speaking, and writing abilities (Wang, 2021; Zhang, 2024).

The limitations of this traditional teaching model are becoming increasingly apparent with the deepening of education reform, and it can no longer meet the demands of modern education (Xu, 2023; Jiang, 2023). Therefore, it is necessary to introduce new educational concepts and teaching models to improve the quality of English language teaching (Min, 2021). English courses in higher vocational colleges should adopt a student-centered approach, prioritizing student participation and interaction to stimulate students’ autonomous learning abilities and cultivate their practical application skills (Zhou, 2023; Wu, 2024). To truly improve the teaching quality of English courses in higher vocational colleges and train more high-quality talents with international competitiveness, only in this way can the desired outcomes be achieved.

The concept of a hybrid of flipped classroom and project-based learning is an innovative teaching model that emphasizes students’ initiative and participation (Chua & Islam, 2021; Sanchez-Muñoz et al., 2022). Their combination requires students to be more actively involved and exploratory in the learning process. Flipped classroom is a modern teaching method that inverts the traditional classroom structure by asking students to independently acquire new knowledge by watching videos and reading materials before class, and then consolidate and apply what they have learnt through discussion and practice in class (Bergmann & Sams, 2012; Basal, 2015; Chen Hsieh et al., 2017). Project-based learning is a student-centered approach to teaching and learning that promotes learning and application of knowledge by engaging students in real-world projects (Blumenfeld et al., 1991; Boss & Krauss, 2018; Alenka & Irena, 2021).

In terms of English language course, project-based learning is considered an effective approach to teaching English as a foreign language (Halim et al., 2023). Multiple studies have shown that project-based learning has the positive impact on students’ English language skills of listening, speaking, reading, and writing (Poonpon, 2016; Astawa et al., 2017; Essien, 2018; Rachida, 2024). Additionally, it is apparent that the utilization of flipped learning exerts a positive and significant influence on a majority of language-related outcomes (Vitta & Al-Hoorie, 2020). Flipped classroom can enhance students’ overall English language skills (Aybirdi et al., 2023) and has been found to be beneficial for EFL/ESL students’ academic achievement (Cohen et al., 2007; Shahnama et al., 2021). Therefore, the combination of project-based learning and the flipped classroom can enhance the effectiveness of English teaching. Students actively explore and practice English skills such as listening, speaking, reading, and writing through project-based learning as well as the flexible learning environment provided by the flipped classroom.

However, there is a lack of instructional modules focusing on the integration of flipped classroom and project-based learning for English courses in higher vocational colleges in China. Thus, the aim of this study is to investigate the need of developing a module of a hybrid of flipped classroom and project-based learning for students in higher vocational colleges in China to enhance their English language application skills.

## 3. Objective and Questions of Study

The objective of the study is to investigate the proficiency in applying English language skills among higher vocational students based on the views of both students and instructors to identify the need for developing a

module of a hybrid of flipped classroom and project-based learning. Therefore, the needs analysis seeks to answer the following research questions: 1) What are students' perception of their proficiency in applying English language skills? 2) What is students' proficiency in applying English language skills according to instructors' views?

#### 4. Methodology

This study employs the Design and Development Research (DDR) approach proposed by Richey and Klein (2007), which comprises three phases: need analysis (Phase I), design and development (Phase II), and evaluation (Phase III). The focus of this study only focuses on need analysis (Phase I). Witkin (1997) defined needs analysis as an approach that aims to identify the difference between the current state and the desired outcome. McKillip (1987) stated that needs are an evaluative assessment of a particular group facing a challenge that requires resolution. Thus, needs analysis was conducted on the students and instructors to assess their needs to develop a module of a hybrid of flipped classroom and project-based learning. The quantitative and qualitative research methods complemented each other, demonstrating the necessity and rationale for developing a hybrid module of flipped classroom and project-based learning.

##### 4.1 Participants

In the study, a purposive sampling technique was used to select the participants. The participants comprised 401 sophomore students and 10 English language instructors from higher vocational colleges in one of provinces in China. Sophomores were selected for specific reasons. Higher vocational colleges typically encompass a three-year academic structure, with junior students engaged in internship programs within enterprises. First-year students, who are at the initial stage of higher education, are still adjusting to the College English course. As a result, they may have limited experience and perceptions of their English application skills. In contrast, second-year students, having completed at least one year of the College English course, are inclined to provide more accurate and fair assessments of their proficiency in applying English language skills.

##### 4.2 Instrument

The survey instrument used to gather information on the perception of proficiency in applying English language skills from students involved need analysis questionnaires. Self-report data are suitable when the information captures the perspectives of individuals (Ensher et al., 2002). The questionnaire was categorized into four constructs based on four main English language skills: English listening (six items), speaking (six items), reading (six items), and writing (six items). The items used for all these variables were adapted from China's Standards Scale of English Language Ability (Ministry of Education of China, 2018) and were scored using a 5-point Likert scale (1=strongly disagree; 2=disagree; 3= neutral; 4=agree; 5=strongly agree). The questionnaire was validated by a panel of four experts in vocational English curriculum teaching, Pedagogy, English language research, vocational education, ensuring meticulous attention to linguistic clarity, well-organized structure, adherence to compliance, and proper format. A pilot study was conducted involving 35 students from higher vocational colleges with the aim of refining the questionnaire items through the use of the instrument. The test registered a Cronbach's alpha coefficient of 0.857, indicating good reliability. It is imperative to note that the 35 students were excluded from the final sample during the need analysis phase. Table 1 displays the reliability coefficients of the constructs in the questionnaire. The Cronbach's alpha coefficients are above 0.8, meeting the questionnaire's reliability requirements.

Table 1. Reliability Coefficients of Constructs in the Questionnaire

Construct	Number of items	Cronbach's Alpha
English Listening	6	.813
English Speaking	6	.829
English Reading	6	.877
English Writing	6	.866

Additionally, a semi-structured interview with 10 English instructors in higher vocational colleges was conducted. The interview aimed to investigate higher vocational students' proficiency in applying English language skills according to 10 instructors' views.

##### 4.3 Data Collection and Analysis

The researcher used the "Questionnaire Star" online platform to formulate a comprehensive questionnaire aimed at gathering crucial data from students. Following necessary approvals from the relevant department of higher

vocational colleges, the online questionnaire was distributed to a specific group of students who were willing to participate in the survey questionnaire through QQ, a widely used instant messaging software in China. Once the data collection phase was complete, the data was analysed using the Statistical Package for the Social Sciences (SPSS) version 26, which included descriptive statistics with means and standard deviations.

## 5. Results

### 5.1 Results from Questionnaires

To answer the first research question, a questionnaire survey was conducted with higher vocational students to determine their perception of their proficiency in applying English language skills. From the 408 surveys administered, a total of 401 valid questionnaires were returned, indicating a response rate of 98.3%. The demographics of the 401 participants reveal a gender distribution where 56.9% identify as male and 43.1% as female, as shown in Table 2. This suggests a slight male majority within the surveyed population. All participants in the questionnaire survey were Chinese nationals and in their third semester, which aligns with the study's population requirement.

Table 2. Participants' Demographics (N=401)

Demographics		N	(%)
Gender	Male	228	56.9
	Female	173	43.1
Nationality	Chinese	401	100
	Others	0	0
Semester	One	0	0
	Two	0	0
	Three	401	100

The questionnaire was categorized into four constructs including English listening, speaking, reading, and writing. Each construct was examined to determine students' proficiency in applying English language skills. Table 3 shows the mean scores and standard deviations of the students' proficiency in applying English language skills in the four constructs. The average scores across all students for the four constructs varied within the range of 2.62 to 3.21, yielding an overall mean score of 2.96. This suggests that students have a moderate level of proficiency in applying English language skills. In terms of the four skills, English reading skill ranked highest ( $M = 3.21$ ,  $SD = 0.702$ ), followed by writing skill ( $M = 3.06$ ,  $SD = 0.673$ ), speaking skill ( $M = 2.93$ ,  $SD = 0.581$ ) and listening skill ( $M = 2.62$ ,  $SD = 0.512$ ).

Table 3. Results of Students' English Proficiency in Four Constructs

Constructs	Mean	Std. Deviation	Skill level
English Listening	2.62	.512	Medium
English Speaking	2.93	.581	Medium
English Reading	3.21	.702	Medium
English Writing	3.06	.673	Medium
Total mean score	2.96		Medium

There are six items in each construct. Students' perceptions of their level of proficiency in using English language skills are displayed in Table 4.

Table 4. Results of Students' Proficiency in Applying English Application Skills

No.	Item	M	SD
<b>ENGLISH LISTENING</b>			
1	Be able to understand a simple introduction about a familiar product with clear	3.96	0.907

	pronunciation and slow speed and obtain key information.		
2	Be able to understand announcements in public places such as airports and stations with clear pronunciation and slow speed and obtain key information.	3.40	0.768
3	Be able to understand questions in a normal speed interview and infer the interviewer's intentions and opinions.	2.85	0.788
4	Be able to understand simple conversations in study and work scenarios and understand the speaker's intentions.	2.33	1.176
5	Be able to make inferences about people, places, events, etc. based on key words heard.	1.76	0.732
6	Be able to correct previous misunderstandings while listening.	1.44	0.610
<b>ENGLISH SPEAKING</b>			
7	Be able to describe the circumstances of an event briefly, such as time, place, and people.	4.24	0.865
8	Be able to briefly talk about own opinions on common topics in daily life or study after preparation.	3.74	0.814
9	Be able to make reservations on the phone for common services in life, such as booking medical appointments, booking tickets, ordering meals.	3.34	0.754
10	Be able to briefly inquire about the accommodation and itinerary of foreign guests when receiving them.	2.92	0.722
11	Be able to handle daily banking matters through conversation, such as opening and closing accounts, depositing, withdrawing.	2.62	0.797
12	Be able to have a simple conversation about business matters, such as returns and exchanges of product, refunds.	2.38	2.209
<b>ENGLISH READING</b>			
13	Be able to understand the speaker's intentions when reading written conversations about everyday life.	3.88	0.868
14	be able to extract specific information such as time and place when reading common practical writing, such as notice or announcement.	3.79	0.815
15	be able to understand the relationships between processes when reading simple flowcharts.	3.12	0.806
16	Be able to summarize the main points of the content when reading instructional material about technical specifications in simple language.	2.74	0.763
17	Be able to understand the speaker's intentions when reading written conversations about everyday life.	2.27	0.930
18	be able to extract specific information such as time and place when reading common practical writing, such as notice or announcement.	1.76	0.675
<b>ENGLISH WRITING</b>			
19	Be able to write well-structured, clear language guides for business activities.	2.10	0.871
20	Be able to write an application letter that is properly formatted, complete, and highlights your strengths appropriately.	3.76	0.734
21	Be able to write a letter or email briefly to introduce personal information, hobbies, campus life.	3.57	2.649
22	Be able to use examples from daily life, study or work to explain or illustrate.	2.82	0.655
23	Be able to use connecting words to express parallelism, transitions, cause and effect, progressions.	2.45	0.688
24	Be able to write greeting cards, postcards, invitations, etc. with reference to templates.	3.67	0.885

As shown in Table 4, the mean scores of students across four constructs fell within the range of 1.44 to 4.24 on a 5-point Likert scale. The findings suggest that students' average proficiency levels in applying English

application abilities were moderate. In terms of English listening, students highly agreed on item 1 ( $M=3.96$ ,  $SD=0.907$ ) and item 2 ( $M=3.40$ ,  $SD=0.768$ ). They believed that they could understand a simple introduction about a familiar product and announcements in public places with clear pronunciation and slow speed and obtain key information. They were followed by item 3 “be able to understand questions in a normal speed interview and infer the interviewer’s intentions and opinions” ( $M=2.85$ ,  $SD=0.788$ ), and item 4 “be able to understand simple conversations in study and work scenarios and understand the speaker’s intentions” ( $M=2.33$ ,  $SD=1.176$ ). Students felt least competent on items 5 ( $M=1.76$ ,  $SD=0.732$ ) and 6 ( $M=1.44$ ,  $SD=0.610$ ).

In terms of English speaking, students highly agreed item 7 “be able to describe the circumstances of an event briefly, such as time, place, and people” ( $M=4.24$ ,  $SD=0.865$ ), followed by item 8 “be able to briefly talk about own opinions on common topics in daily life or study after preparation” ( $M=3.74$ ,  $SD=0.814$ ), and item 9 “be able to briefly talk about own opinions on common topics in daily life or study after preparation” ( $M=3.34$ ,  $SD=0.754$ ). Students felt least competent on items 10 ( $M=2.92$ ,  $SD=0.722$ ), 11 ( $M=2.62$ ,  $SD=0.797$ ), and 12 ( $M=2.38$ ,  $SD=2.209$ ).

In terms of English reading, students highly agreed with item 13 “be able to understand the speaker’s intentions when reading written conversations about everyday life” ( $M=3.88$ ,  $SD=0.868$ ), followed by item 14 “be able to extract specific information such as time and place when reading common practical writing, such as notice or announcement” ( $M=3.79$ ,  $SD=0.815$ ), and item 15 “be able to understand the relationships between processes when reading simple flowcharts” ( $M=3.12$ ,  $SD=0.806$ ). Students felt least competent on items 16 ( $M=2.74$ ,  $SD=0.763$ ), 17 ( $M=2.27$ ,  $SD=0.930$ ), and 18 ( $M=1.76$ ,  $SD=0.675$ ).

In terms of English writing, students highly agreed item 20 “be able to write an application letter that is properly formatted, complete, and highlights your strengths appropriately” ( $M=3.76$ ,  $SD=0.734$ ) and item 24 “be able to write a letter or email briefly to introduce personal information, hobbies, campus life” ( $M=3.67$ ,  $SD=0.885$ ). They are followed by item 21 “be able to write a letter or email briefly to introduce personal information, hobbies, campus life” ( $M=3.57$ ,  $SD=2.649$ ). Students felt least competent on items 22 ( $M=2.82$ ,  $SD=0.655$ ), 23 ( $M=2.45$ ,  $SD=0.688$ ), and 19 ( $M=2.10$ ,  $SD=0.871$ ).

### 5.2 Results from Interview with Instructors

To answer the second research question: “what is students’ proficiency in applying English language skills according to instructors’ views?”, a semi-structured interview with 10 English instructors in higher vocational colleges was conducted. The demographics of the instructors are shown in Table 5. As seen in Table 5, there are ten English instructors, comprising five males and five females, each with diverse teaching experiences. Four instructors have accumulated more than 20 years of teaching experience, three have between 6 and 10 years, one falls within the range of 11 to 15 years, and two have acquired between 16 and 20 years. The instructors exhibit varying levels of experience, but they collectively demonstrate significant expertise in teaching English as a foreign language.

Table 5. Instructors’ Demographics (N=10)

No.	Gender	Title	Experience in teaching English
1	Female	Associate professor	11-15 years
2	Male	Lecturer	6-10 years
3	Female	Professor	more than 20 years
4	Male	Associate professor	more than 20 years
5	Female	Associate professor	16-20 years
6	Male	Lecturer	6-10 years
7	Male	Professor	more than 20 years
8	Male	Associate professor	16-20 years
9	Female	Lecturer	6-10 years
10	Female	Professor	more than 20 years

These instructors reported higher vocational students’ proficiency in applying English language skills. All ten instructors agreed that higher vocational students have poor English skills, particularly in listening. They noted that many students struggle with comprehension when faced with complex or professional English listening materials, despite being able to understand simple or slow everyday dialogues. Some students struggle to

comprehend English news or academic lectures. Additionally, many students face challenges in listening comprehension not only due to language barriers but also due to a lack of cultural background knowledge. They may struggle to understand culturally specific expressions and slang in listening materials, which can make it difficult for them to comprehend more complex English listening materials. Furthermore, certain students may struggle to promptly recognize and analyze crucial information in auditory materials, potentially due to inadequate training in listening skills.

Regarding English speaking skills, the instructors noted that some students lack confidence in their English language abilities, leading to fear of making mistakes. Additionally, limited opportunities to practice speaking English can cause discomfort when communicating orally. It is important to provide ample opportunities for students to practice speaking English to build their confidence and improve their skills. Furthermore, a student's pronunciation, intonation, and rhythm may be influenced by their mother tongue, which can affect the authenticity of their spoken English.

In terms of English reading skills, the instructors provided feedback that, compared to other English skills, Chinese students tend to excel in English reading. However, there is still room for improvement in terms of reading comprehension and speed. Some students may struggle with reading skills and vocabulary, while others may not have yet mastered effective reading techniques such as predicting the content of a text, identifying topic sentences, and recognizing key words. Additionally, some students may lack the necessary vocabulary to understand more complex reading material. Moreover, limited opportunities to practice reading can result in deficiencies in both reading speed and depth of comprehension.

Regarding English writing skills, the instructors pointed out that many students struggle with accurate grammar and vocabulary usage. Some students may not have a complete understanding of English grammar rules, resulting in grammatical errors in their writing. Additionally, some students may have a limited vocabulary, leading to monotonous compositions. While they can write simple sentences and paragraphs, they may struggle with more complex writing tasks. Furthermore, certain students may not have sufficient chances to practice writing, which can result in a lack of proficiency in both writing skills and expression.

Furthermore, the instructors deemed the suggestions of this study to be highly significant. They concurred that the creation of a blended module, which combines the flipped classroom and project-based learning, could greatly enhance the English language application skills of higher education students. Specifically, this hybrid module had the potential to positively impact students' English learning in multiple ways. They pointed out that the flipped classroom model enables students to learn independently through online resources before class, allowing for a more comprehensive understanding of the basics. In this way, classroom time can be more fully devoted to practical applications and in-depth discussions, emphasizing practical English application skills development. Students solve problems on their own in independent learning, which improves their problem-solving ability and learning motivation. They believed that the integration of project-based learning provides students with a learning environment that has a concrete, real-world context. By participating in projects, students can apply what they have learned in real-world contexts and develop the ability to communicate and cooperate in the practical use of English. This approach to learning aims to help students gain a comprehensive understanding and mastery of the English language and culture, providing a strong language foundation for future career development. The instructors expressed their willingness to participate in the development and implementation of this module and to provide necessary support and assistance. Through joint efforts, a blended teaching module can be developed to provide better support and services for the English learning of higher vocational students.

## **6. Discussion**

This study explores the levels of proficiency in applying English language skills based on both higher vocational students and instructors. According to the results of questionnaire survey for 401 higher vocational students, it can be seen that students had moderate levels of proficiency of applying English language skills. In comparison, their English reading skills are the strongest, followed by writing skills. English listening and speaking skills are the weakest. Additionally, according to the results of semi-structured interviews with 10 English instructors, it can be concluded that higher vocational students often struggle with developing their English language skills, especially in listening and speaking. This can lead to a lack of proficiency in applying their knowledge. It is important to address these challenges in order to improve overall language ability. Therefore, the findings from both the interviews and the questionnaire are consistent.

Proficiency in English listening and speaking skills is crucial for overall language development and is closely connected to English reading and writing skills, creating a mutually reinforcing learning environment. Firstly, English listening and reading are the main means of language input that promote comprehension, memorization, and vocabulary expansion. They help students perceive the intonation, rhythm, and grammatical structure of the language, thus improving their listening comprehension. Additionally, this input broadens vocabulary horizons

and helps develop sensitivity to context, laying the foundation for more accurate expression. Secondly, English speaking and writing are important for improving expression and thought organization. Oral fluency can deepen understanding and develop self-confidence in language use. English Writing can prompt students to organize their thoughts systematically and improve language accuracy. English Speaking and writing training are complementary, enabling students to apply their language knowledge more comprehensively. During the language learning process, skills interact closely. Listening forms the basis of speaking, while reading forms the basis of writing. Improvement in English speaking and writing, in turn, promotes a deeper understanding of listening and reading. Therefore, to comprehensively improve students' English application skills, it is necessary to develop all four skills of English listening, speaking, reading and writing. This holistic approach to training helps students use English more comprehensively and freely, improving their language proficiency in practical applications.

## 7. Conclusion

The accelerated development of globalization has made English an important international language in various professional situations. For higher vocational students, good English language skills are not only beneficial for academic development but also enhance competitiveness in the future workplace. Thus, the objective of this study is to comprehensively understand the current state of English language skill application among higher vocational students and to investigate the need for a blended module of flipped classroom and project-based learning based on this understanding. A questionnaire survey was conducted to gauge higher vocational students' perception of their proficiency in applying English language skills. Simultaneously, semi-structured interviews were conducted with English instructors in higher vocational colleges to assess the English language skills of higher vocational students and the need for a blended module of flipped classroom and project-based learning. The quantitative and qualitative research methods complemented each other, demonstrating the necessity and rationale for developing a hybrid module of flipped classroom and project-based learning. Based on the survey results, the majority of students reported difficulties in all four aspects of English language learning: listening, speaking, reading, and writing. Specifically, speaking and listening were identified as the most challenging areas. The instructors also recognized the need for innovative teaching methods to enhance students' practical application skills, given the current situation of weak English proficiency across all four language skills. Based on the study results, it is recommended to develop a hybrid module that combines flipped classroom and project-based learning. This module can improve students' practical application of English and enhance the teaching effect. Additionally, the findings will be used to create questionnaires in the second phase of the Design and Development Research (DDR) approach to collect experts' views through the Fuzzi Delphi technique. A module that blends flipped classroom and project-based learning will be designed and developed for English curriculum in higher vocational colleges. Then the developed curriculum will be evaluated in the third phase of the study based on the results of the second phase.

## References

- Alenka, Ž., & Irena, N. Š., (2021). Project-Based Learning in Higher Education. In C. Vaz de Carvalho & M. Bauters (Eds.), *Technology Supported Active Learning. In Lecture Notes in Educational Technology* (pp. 31–57). Springer. [https://doi.org/0.1007/978-981-16-2082-9\\_3](https://doi.org/0.1007/978-981-16-2082-9_3).
- An, W., (2022). Research on the Reform of Vocational English Curriculum Based on Core Competencies of Higher Vocational English. In *2022 6th International Seminar on Education, Management and Social Sciences (ISEMSS 2022)*, 2993–3003. [https://doi.org/10.2991/978-2-494069-31-2\\_352](https://doi.org/10.2991/978-2-494069-31-2_352).
- Astawa, N. L. P. N. S. P., Artini, L. P., & Nitiasih, P. K., (2017). Project-based Learning Activities and EFL Students' Productive Skills in English. *Journal of Language Teaching and Research*, 8(6), 1147–1155. <https://doi.org/10.17507/jltr.0806.16>.
- Aybirdi, N., Efe, H., & Atasoy Şal, Ç., (2023). The Impact of Flipped Learning on L2 Learners' Achievements: A Meta Analysis. *Shanlax International Journal of Education*, 11(1), 41–60. <https://doi.org/10.34293/%20education.v11iS1-Jan.5891>.
- Basal, A., (2015). The implementation of a flipped classroom in foreign language teaching. *Turkish Online Journal of Distance Education*, 16(4), 28–37. <https://doi.org/10.17718/tojde.72185>.
- Bergmann, J., & Sams, A., (2012). *Flip your classroom: reach every student in every class every day*. Eugene, Oregon: International Society for Technology in Education.
- Blumenfeld, P., Soloway, E., Marx, R., Krajcik, J., Guzdial, M., & Palincsar, A., (1991). Motivating Project-Based Learning: Sustaining the Doing, Supporting the Learning. *Educational Psychologist*, 26(3), 369–398. <https://doi.org/10.1080/00461520.1991.9653139>.
- Boss, S., & Krauss, J., (2018). *Reinventing project-based learning: your field guide to real-world projects in the*



- digital age*. International Society for Technology in Education.
- Chang, H., (2021). Interpretation of the Curriculum Implementation of English Curriculum Standards for Higher Vocational Education (2021 Edition). *Foreign Languages in China*, 18(5), 16–20. <https://doi.org/10.13564/j.cnki.issn.1672-9382.2021.05.001>.
- Chen Hsieh, J. S., Wu, W.-C. V., & Marek, M. W., (2017). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, 30(1-2), 1–21. <https://doi.org/10.1080/09588221.2015.1111910>.
- Chua, K., & Islam, M., (2021). The hybrid Project-Based Learning–Flipped Classroom: A design project module redesigned to foster learning and engagement. *International Journal of Mechanical Engineering Education*, 49(4), 289–315. <https://doi.org/10.1177/0306419019838335>.
- Cohen, L., Manion, L., & Morrison, K., (2007). *Research Methods in Education*. Routledge.
- Ensher, E. A., Grant-Vallone, E. J., & Marelich, W. D., (2002). Effects of Perceived Attitudinal and Demographic Similarity on Proteges' Support and Satisfaction Gained from Their Mentoring Relationships. *Journal of Applied Social Psychology*, 32(7), 1407–1430. <https://doi.org/10.1111/j.1559-1816.2002.tb01444.x>.
- Essien, A. M., (2018). The effects of project-based learning on students English language ability. *In the 2018 International Academic Research Conference in Vienna*, 438–443.
- Halim, N., Boys, M., Fahmi, F., Nozaki, K., & Matsuzaki Wuttipong, (2023). Implementation of Project-Based Learning in Indonesian EFL Class Between 2017 to 2022. *Journal Neosantara Hybrid Learning*, 1(2), 94–109. <https://doi.org/10.55849/jnhl.v1i2.94>.
- He, X., (2016). The View of the Social Service Positioning of China's Vocational Colleges from Evolvment of History. *International Conference on Humanities and Social Science 2016*, 106–116. <https://doi.org/10.2991/hss-26.2016.16>.
- Hu, J., (2021). Research on the Status Quo and Countermeasures of Public English Teaching Quality in Higher Vocational Colleges. *Vision*, 1, 68–73.
- Jiang, L., (2019). Research on the Construction and Evaluation of Core Competence of Business English Major. *Journal of Taiyuan Urban Vocational College*, 1, 143–145.
- Jiang, Y., (2023). Exploration of Informatisation Teaching Mode of English Education in Higher Vocational Colleges and Universities. *Industrial & Science Tribune*, 22(8), 189–190.
- Jin, Y., & Liao, W., (2023). Employment-oriented vocational English teaching innovation strategy. *Growing*, 6, 88–90.
- Kan, X., (2021). The Path of Cultivating English Core Literacy in Higher Vocational Education in the Context of New Curriculum Standard. *In SHS Web of Conferences*, 171, 02033.
- Li, J., & Xue, E., (2021). *One Belt and One Road and China's Education Development: A Policy Analysis Perspective*. Springer Nature.
- Li, N., (2023). A Probe into the Reform of English Teaching in Higher Vocational Colleges under the Guidance of English Curriculum Standard for Higher Vocational Education (2021 Edition). *China Standardization*, 20, 217–219.
- Li, P., & Ahmad, N., (2022). An analysis of integration of business content and skills in English for specific academic purposes (ESAP) course at a higher vocational college via content and language integrated learning (CLIL) perspective. *FRASA: English Education and Literature Journal*, 3(1), 42–49.
- Liu, S., (2018). Employment-Oriented Public English Teaching Reform in Higher Vocational Colleges. *2018 International Conference on Education, Economics and Social Science (ICEESS 2018)*, 245–248.
- Lv, L., (2024). The Construction of Ecological Teaching Mode of College English in Local Vocational Colleges and Universities — Taking Longnan Normal College as an Example. *Western China Quality Education*, 10(2), 185–189.
- McKillip, J., (1987). *Need analysis: Tools for the Human Services and Education*. Sage Publications.
- Min, L., (2021). Reform and Innovation of English Course Teaching in Higher Vocational Colleges under School-Enterprise Co-operation Mode. *Chinese & Foreign Corporate Culture*, 8, 171–172.
- Ministry of Education of China, (2021). *English Curriculum Standards in Higher Vocational Colleges (2021 Edition)*. [http://www.moe.gov.cn/srcsite/A07/moe\\_737/s3876\\_qt/202104/W020210409562365459062.pdf](http://www.moe.gov.cn/srcsite/A07/moe_737/s3876_qt/202104/W020210409562365459062.pdf).
- Poonpon, K., (2016). Enhancing English skills through project-based learning. *The English Teacher*, XL, 1–10.
- Rachida, M., (2024). Implementing Project-Based Learning in Moroccan Classrooms: Misconceptions, Impact

- and Challenges. *International Journal of Linguistics and Translation Studies*, 5(1), 15–27. <https://doi.org/10.36892/ijlts.v5i1.402>.
- Richey, R. C., & Klein, J. D., (2007). *Design and Development Research*. Lawrence Erlbaum Associates, Inc.
- Sanchez-Muñoz, R., Carrió, M., Rodríguez, G., Pérez, N., & Moyano, E., (2022). A hybrid strategy to develop real-life competences combining flipped classroom, jigsaw method and project-based learning. *Journal of Biological Education*, 56(5), 540–551. <https://doi.org/10.1080/00219266.2020.1858928>.
- Shahnama, M., Ghonsooly, B., & Shirvan, M. E., (2021). A meta-analysis of relative effectiveness of flipped learning in English as second/foreign language research. *Educational Technology Research and Development*, 69(3), 1355–1386. <https://doi.org/10.1007/s11423-021-09996-1>.
- Sheng, X., (2023). Analysis of the Optimisation Path of Higher Vocational English Teaching under the Cultivation of Core Literacy. *Educational Sciences*, 4, 13–16.
- Su, L., (2023). A Brief Discussion on the Innovation and Development of Higher Vocational English Teaching Mode. *Flower Stream*, 4, 7–9.
- Vitta, J. P., & Al-Hoorie, A. H., (2020). The flipped classroom in second language learning: A meta-analysis. *Language Teaching Research*, 27(5), 136216882098140. <https://doi.org/10.1177/1362168820981403>.
- Wang, F., (2021). The Path Choice of Improving the Effectiveness of Higher Vocational English Teaching. *Overseas English*, 20, 268–269.
- Wu, Y., (2024). An Exploration on the Infiltration and Integration of Communicative English Teaching Mode in English Education in Higher Vocational Colleges. *Journal of HUBEI Open Vocational College*, 37(1), 177–191. <https://doi.org/10.3969/j.issn.2096-711X.2024.01.066>.
- Xu, L., (2023). A Comparative Analysis of Higher Vocational English SPOC Model and Traditional Teaching Model. *Popular Digest*, 38, 31–33.
- Zhang, N., & Zhang, Z., (2017). Analysis and Exploration of Public English Teaching Reform in Higher Vocational College — Focus on Inner Mongolia Business and Trade Vocational College. *Education and Teaching Forum*, 14, 25–26.
- Zhang, W., (2024). Exploring the Construction of Online and Offline “Golden Classes” for College English in the New Era --Taking Jiangsu Agriculture and Forestry Vocational and Technical College as an Example. *Modern Vocational Education*, 1, 129–132.
- Zhang, Y., (2021). Research on the Reform of English Teaching Mode in Vocational Colleges Based on Vocational Ability Cultivation. *English on Campus*, 36, 97–98.
- Zhao, H., (2023). *Innovative System for Personnel Management in Chinese Vocational Education Institutions* (pp. 1–253) [PhD Thesis].
- Zhou, Y., (2023). Analysis of the Application Strategies of Project-based Teaching in Reading Course for Higher Vocational English Majors. *Overseas English*, 18, 235–237.
- Zhu, J., & Yao, L., (2022). Practice and Reflection on the Construction of Ideological and Political College English Courses from the Perspective of New Curriculum Standards. *International Journal of Education and Management*, 7(2), 38–40.

## Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).