THE USE OF COMMUNITY OF INQUIRY BASED BLENDED LEARNING APPROACH TO ENHANCE STUDENTS' VOCABULARY AND VOCABULARY LEARNING MOTIVATION

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SULTAN IDRIS EDUCATION UNIVERSITY

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ABSTRACT

This study aims to investigate the use of Community of Inquiry (CoI) based blended learning approach to enhance students' Vocabulary Test Scores (VTS) and Vocabulary Learning Motivation (VLM) in Chinese secondary vocational EFL classroom. It utilized an explanatory sequential mixed methods approach and a quasi-experimental research design. A series of instruments including a Diagnostic Test, a researcher-developed Vocabulary pre-test and post-test, CoI and VLM questionnaires were employed to gather quantitative data while a semi-structured interview to gather qualitative data. A total of 86 first-year students at a Technician College with two campuses in Chongqing, China were allocated to an experimental group (n = 44) and a control group (n = 42) using a purposive sampling method. Results from the quantitative findings revealed that 1) there is a significant difference between the experimental and control groups after the CoI-based blended learning intervention in terms of students' VTS and VLM; 2) the correlation between students' CoI (Teaching Presence (TP), Social Presence (SP), Cognitive Presence (CP) and VTS and VLM changed significantly before and after the CoI-based blended learning intervention; 3) TP, SP, CP cannot predict VTS significantly, meanwhile, TP cannot predict VLM significantly as well but SP and CP can. Afterwards, 12 students from the experimental group were then interviewed upon their voluntary basis. Findings were revealed according to the themes of TP (Guidance, Emotion, Supervision), SP (Interaction, Affective collection, Communication method), CP (Strategy, Course approach, Meaningful learning) based on their perceptions. In conclusion, the overall findings of this study suggest that the CoI-based blended learning is an effective approach to enhance students' VTS and VLM. It may hopefully inform other EFL policymakers, developers and practitioners the potentials of blended teaching supplement from the lens of Community of Inquiry framework in Chinese secondary vocational education context.

PENGGUNAAN PENDEKATAN PEMBELAJARAN TERADUN BERASASKAN KOMUNITI INKUIRI UNTUK MENINGKATKAN PERBENDAHARAAN KATA DAN MOTIVASI PEMBELAJARAN PERBENDAHARAAN KATA PELAJAR

ABSTRAK

Kajian ini bertujuan untuk menyelidik penggunaan pendekatan pembelajaran teradun berdasarkan Komuniti Inkuiri (CoI) untuk meningkatkan Skor Ujian Kosa Kata (VTS) dan Motivasi Pembelajaran Kosa Kata (VLM) pelajar dalam kelas bahasa Inggeris sebagai Bahasa Asing (EFL) aliran vokasional sekolah menengah Cina. Kajian ini menggunakan pendekatan metodologi campuran berurutan penjelasan dan reka bentuk kajian eksperimen separa. Satu siri instrumen termasuk Ujian Diagnostik, ujian pra dan ujian pasca kosa kata yang dibuat oleh penyelidik, soal selidik CoI dan VLM digunakan untuk mengumpul data kuantitatif, manakala kaedah temu bual separa berstruktur digunakan untuk mengumpul data kualitatif. Seramai 86 orang pelajar tahun pertama dari Kolej Juruteknik di dalam dua kampus di Chongqing, China, diperuntukkan kepada kumpulan eksperimen (n = 44) dan kumpulan kawalan (n = 42) menggunakan kaedah persampelan bertujuan. Keputusan daripada dapatan kuantitatif menunjukkan bahawa 1) terdapat perbezaan yang signifikan antara kumpulan eksperimen dan kumpulan kawalan selepas intervensi pembelajaran teradun berasaskan CoI dalam hal VTS dan VLM pelajar; 2) korelasi antara CoI pelajar (Kehadiran Pengajaran (TP), Kehadiran Sosial (SP), Kehadiran Kognitif (CP)) dan VTS serta VLM berubah secara signifikan sebelum dan selepas intervensi pembelajaran teradun berasaskan CoI; 3) TP, SP, CP tidak dapat meramalkan VTS secara signifikan, sementara itu, TP juga tidak dapat meramalkan VLM secara signifikan tetapi SP dan CP boleh diramal. Selepas itu, 12 orang pelajar dari kumpulan eksperimen kemudiannya ditemu bual atas dasar sukarela mereka. Analisis dapatan turut dibincangkan berdasarkan tema-tema TP (Panduan, Emosi, Pengawasan), SP (Interaksi, Pengumpulan Afektif, Kaedah Komunikasi), CP (Strategi, Pendekatan Kursus, Pembelajaran Bermakna) berdasarkan persepsi pelajar. Kesimpulannya, keseluruhan dapatan kajian ini mencadangkan bahawa pembelajaran

gabungan berasaskan CoI adalah pendekatan yang berkesan untuk meningkatkan VTS dan VLM pelajar. Impikasi kajian ini diharapkan dapat memaklumkan kepada pembuat dasar, pembangun dan pengamal EFL yang lain tentang potensi tambahan pengajaran campuran daripada lensa rangka kerja Komuniti Inkuiri dalam konteks pendidikan aliran vokasional menengah Cina.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CCEE	Classified College Entrance Examination
CNKI	China National Knowledge Infrastructure
CoI	Community of Inquiry
CP	Cognitive Presence
EFL	English Foreign Language
FC	Five-year-system Colleges
ICT	Information and Communication Technologies
K-S	Kolmogorov-Smirnov
LMS	Learning Management Systems
M	Mean
MOE	Ministry of Education
P-P	Percent-Percent plots
Q-Q	Quantile-Quantile plots
SEM	Structural Equation Modeling
TC	Technician College
TP	Teaching Presence
TESL	Teaching English as a Second Language
SP	Social Presence

SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
SSS	Secondary-Specialized Schools
SWS	Skilled Worker Schools
SSCI	Social Sciences Citation Index
S-W	Shapiro-Wilk
VHS	Vocational High Schools
VLM	Vocabulary Learning Motivation
VR	Virtual Reality
VTS	Vocabulary Test Scores

APPENDIX LIST

CHAPTER 1

INTRODUCTION

1.1 Introduction

This section presents the background of the study, which concerns the importance and current situation of vocabulary teaching and learning as well as students' vocabulary learning motivation in Chinese secondary **English as a foreign language (EFL)** classrooms. Subsequently, Chinese national policies on secondary vocational education, challenges in vocabulary instruction and learning in Chinese EFL

secondary school settings, as well as an examination of the **Community of Inquiry (CoI)** framework and blended learning in English language instruction were discussed. Furthermore, this chapter also encompasses the research objectives, research questions and their related hypotheses, operational definitions, limitations, and the significance of this study.

1.2 Background research

English is a worldwide language and a repository of international knowledge and information. It is a global communication medium and upholds terminological standards (Bhatti et al., 2021). In the learning process of this language, effective vocabulary learning is one of the most crucial components that plays a pivotal role for students, not only for boosting their language skills but also because superior vocabulary performance can contribute to improved achievement in reading, writing, speaking, listening, as well as overall EFL proficiency (Miralpeix & Muñoz, 2018; Nation, 2013). In contrast, without adequate vocabulary knowledge, students are not able to express themselves appropriately (Klimova, 2021). Vocabulary is often the most fundamental element and focus when learning a foreign language (Ebadi & Ghuchi, 2018). The expansion of it is widely regarded as one of the primary gateways to English academic achievement (Mukhlif & Challob, 2021). Therefore, for a long

time, many experts in the literature of EFL teaching and learning have emphasized the importance of vocabulary knowledge (Dabbagh & Janebi Enayat, 2019; Janebi Enayat & Babaii, 2018; Matthews, 2018; Nation, 2011). However, common tasks in the traditional English classroom include reading, writing, listening, speaking, and exercising. In contrast, vocabulary teaching and learning are allocated very limited time and appear to be the least systematized and well-supported part (Aswad et al., 2022). Due to time constraints that teachers and students may have in and out of the traditional classroom, vocabulary is often asked to be recited mechanically, resulting in ineffective and demotivated vocabulary learning (Zeng et al., 2022; Li, 2019).

In China, for many centuries, the prevailing cultural beliefs influenced by Confucianism emphasized the importance of academic excellence and the pursuit of official positions. It is widely believed that achieving high academic performance in all subjects and gaining admission to a prestigious university or college are necessary steps towards a successful career and a prosperous future. Due to the fact that vocational schools primarily cater to underachieving students, vocational education in China is generally met with significant bias from the general population. Under this premise, a growing imbalance in the enrolment ratio between general and vocational education is revealed (See Figure 1.1). Trying to eliminate the prejudice and balance the development of the two types of education, the Chinese government issued the "National Vocational Education Reform Plan" notice in 2018, explicitly highlighting

the importance of vocational education on par with general education. In addition, to address and prevent the worsening imbalance of the enrolment ratio, the "Notice on the Enrolment in Secondary Vocational Schools" (MOE, 2021) was released by the Chinese **Ministry of Education (MOE)** in March 2021, mandating equal enrolment ratios between secondary vocational schools and general high schools from year 2021 on.

Additionally, following the "Fourteenth Five-Year Plan and the Outline of the 2035 Vision Goals (MOE, 2021)," China plans to establish the **Classified College Entrance Examination (CCEE)** system for vocational education and develop numerous high-level undergraduate vocational majors, colleges, and universities. In this type of setting, the scenario of more vocational school students entering colleges or universities would soon turn into a reality. It is worth mentioning that in this entrance examination, English, together with Chinese, Mathematics and specialized courses are the compulsory subjects.

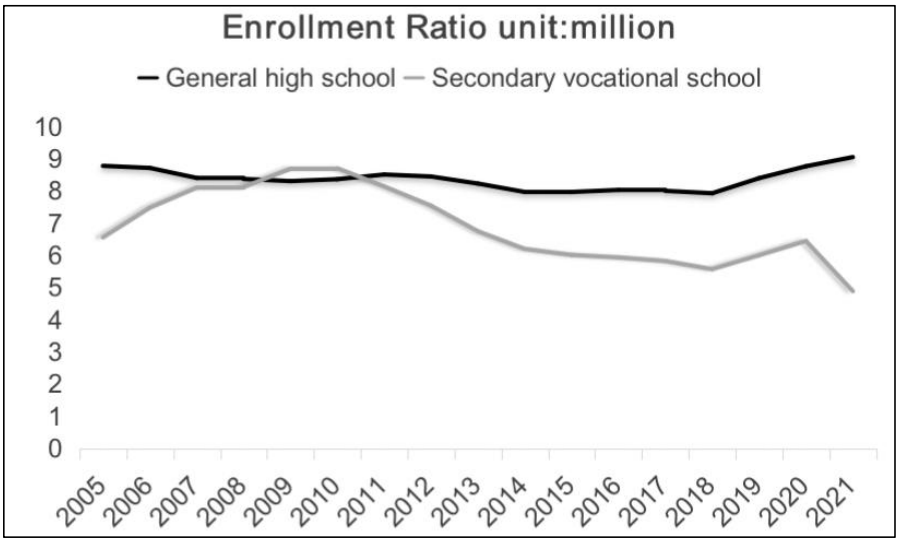

Figure 1.1. Enrolment ratio of general high school and secondary vocational school

For a long time, Chinese secondary vocational schools have focused on developing a diverse technical workforce, and teachers and students often prioritize the development of their professional abilities as their top career priority (Su, 2022). The English subject, essential for all majors, is traditionally taught in the classroom through the four language skills: listening, speaking, reading, and writing. However, it has often been regarded as secondary and less important than other subjects, as the teaching approach prioritizes theory over practical application. Furthermore, in China, English is considered a foreign language that is not commonly used in people's everyday lives or professional careers. This further contributes to the tendency to neglect its importance. Governments and schools often allocate fewer resources and attention to English subject teaching. Additionally, a significant majority of secondary vocational students perform below expectations in English, leading to a situation

where teachers are unwilling to teach, and students are hesitant to learn (Wang & Mao, 2022). As a result, students' English performance in Chinese secondary vocational education is below par, and they are often demotivated to learn English. However, English is required as a compulsory subject in the CCEE in vocational education and will steadily increase in importance over the coming decades (Zhu, 2019). In this sense, it is imperative to immediately pay more attention to English instruction within the vocational education stream.

Among the three major components of any language (phonetics, grammar, and vocabulary), vocabulary serves as both the building blocks and the cornerstone of language learning (Ambarwati & Mandasari, 2020). According to the "Chinese Secondary Vocational English Curriculum Standards" (MOE, 2022), English instruction at the secondary vocational level should include a variety of vocabulary tasks. Based on students' mastery of 1,500-1,600 common words during compulsory education, they should aim to learn around 300 additional words, along with idioms and fixed collocations, to reach a total vocabulary size of 1,800-1,900 words or a higher requirement of 2,000 to 2,100 words during their secondary vocational education phase before they attend the CCEE. However, Chinese secondary vocational school students face numerous language learning challenges. Most of them have limited out-of-class English exposure opportunities, and the words they learned in class can be easily forgotten (Gu, 2002). Hence, many EFL students in Chinese

vocational schools regard vocabulary learning as their most significant obstacle in learning English. With a very limited vocabulary, they would lose interest immediately, making it hard for them to learn English well (Qiu et al., 2023).

Instead of providing guidance on effective learning methods or introducing vocabulary learning methodologies, many teachers in secondary vocational schools simply teach vocabulary based on word lists, focusing on pronunciation, word meaning interpretation, set collocations, and translation (Elmahdi & Hezam, 2020). As a result, students passively absorb knowledge from the teacher, leading to decreased initiative, motivation, creativity, innovation ability, and an inadequate response to their individual needs (Wu, 2018). Typically, students are asked to learn English vocabulary according to the word list and are assigned vocabulary exercises for review and reinforcement outside of class (Li, 2021). However, this rote memorization technique often results in rapid forgetting and making mistakes when using the vocabulary in conversations or presentations (Huang et al., 2022). In addition, the heavy burden, tedious and monotonous process of vocabulary learning frequently demotivates students (Zeng et al., 2022).

In the 21st century, the rapid development of information, communication, and technology has altered and affected human learning. Students born after the year 2000 are more digitally literate and adept at utilizing digital media to meet their demands

(Wu & Luo, 2022). Therefore, the education model should also be modified to reflect contemporary society (Kwangmuang et al., 2021). In this regard, various technologies provide new possibilities for the educational process, including English language skills and vocabulary teaching and learning (Simamora & Oktaviani, 2020). During recent decades, many scholars have conducted related studies to investigate the effectiveness of these technologies on students' vocabulary mastery such as digital games (Yudha & Mandasari, 2021; Masoud et al. 2020; Çil, 2021; Bueno-Alastuey & Nemeth, 2022); digital flashcards (Ashcroft et al., 2018); technology-enhanced scaffolding (Mansouri & Mashhadi Heidar, 2019); mobile devices (Fithriani, 2021); multimedia glosses (Ahmad, 2019); informal digital learning (Lee, 2019); flipped classroom (Kirmizi & Kömeç, 2019); digital applications such as WhatsApp (Çetinkaya & Sütçü, 2019; Hashemifardnia et al., 2018; Dehghan et al., 2017); Facebook (Al-Tamimi et al., 2018; Çetinkaya & Sütçü, 2018; Mukhlif & Challob; 2021); telegram (Heidari Tabrizi & Onvani, 2018); websites (Bashori et al., 2021) and found these technologies and digital tools have significant potential on improving students' vocabulary performance.

Among different types of technologies integrated into EFL classrooms, blended learning offers an upgraded performance that enables students to study in a simple and participatory manner, regardless of distance or location limits (Zulkanain & Rahim, 2018). The employment of digital tools in the classroom and for

extracurricular activities enables new modalities of education (Puzanov et al., 2022). Teachers can use current online courses on numerous platforms and blend them with traditional teaching materials to meet student's needs as profoundly and naturally as possible, creating an interactive, entertaining, lively, and engaging learning environment (Du, 2019). With the abundance of learning methods and resources on the Internet, students are not restricted by time and location, which maximizes the use of fragmented time, enhances learning efficiency, remedies the lack of group feeling, and solves the problem of isolated learning (Huang et al., 2022; Wu, 2022). The blended learning approach is therefore believed to be a flexible approach that is more useful, enjoyable, supportive, flexible, and motivating for students (Aji et al., 2020) and can encourage both teaching and learning, providing education with more flexibility and convenience at any time and place compared to solely face-to-face approach (Rashid et al., 2021). According to research, in recent years, vocabulary has been reported as one of the most frequently taught areas through technology in EFL teaching and learning (Katasila & Poonpon, 2022). Blended learning has successfully supplemented traditional face-to-face teaching and learning environments with technology-based tools, positively affecting EFL vocabulary learning and higher levels of motivation (Rosell-Aguilar, 2018; Sato & Oyanedel, 2019).

In terms of the pedagogical and social aspects of blended learning design, more recent research has emphasized the promotion of students' learning outcomes through

the establishment of a stronger sense of community (Wang et al., 2018; Chen, 2022). In the 21st century, educators have utilized technology as a tool to incorporate inquiry-based learning and collaboration into educational programs, which significantly improves the effectiveness of education (Chu et al., 2021). In 2021, the Chinese MOE published "Suggestions on Strengthening the Construction and Application of Online Teaching Resources in Primary and Secondary Schools" (MOE, 2021), which requires establishing a largely functional online education platform system by 2025. To facilitate blended learning effectively, educators should explore the potential of digital tools to enhance teacher-student and student-student communication, discussion, and cooperation. Schools should also organize teacher-student and student-student interactions using platforms, interactive tools, software, and face-to-face instruction. Under this premise, a collaborative blended learning environment is encouraged to be constructed. In this approach, blended learning does not merely combine online and conventional learning. Instead, it connects individual students through a framework of collaborative inquiry (Zhang, 2020). Consequently, the CoI framework proposed by Garrison et al. (2000) has been widely acknowledged as having tremendous potential to facilitate higher-order and deep learning through the interaction of **Teaching Presence (TP), Social Presence (SP), and Cognitive Presence (CP).** All of these provide a good framework for students' learning experiences through the lenses of cooperation, critical thinking, and knowledge production (Garrison & Vaughan, 2008).

1.3 Problem statement

The inadequate learning environment and restricted opportunities for language immersion beyond the classroom setting contribute to the below-average language abilities of Chinese secondary vocational school students (Mukhlif & Challob, 2021). Therefore, the main obstacle for these students in language acquisition is because of the classroom settings with limited exposure due to time constraints (Li & Hafner, 2022). A significant number of Chinese students studying EFL assert that they are struggling with acquiring vocabulary. Specifically, they find it challenging to comprehend new vocabulary words during class but rapidly forget them and do not have opportunities to practice them outside the classroom (Khan et al., 2018). Nevertheless, the conditions within Chinese secondary vocational EFL classrooms have not significantly improved, either. The majority of secondary vocational schools in China continue to employ a "traditional single teacher-centered" teaching approach. These schools suffer from inadequate teaching and learning facilities, as well as a shortage of qualified teachers (Chen & Yang, 2018). Teachers frequently rely solely on a piece of chalk, a chalkboard, and verbal communication to provide students with a standardized method of instruction (Zhang, 2020). When teaching vocabulary, they generally concentrate on instructing students on the pronunciation, form, and fundamental definition of words through the four essential language skills of listening, speaking, reading, and writing. Consequently, students are explicitly instructed to

learn, repeat, or practice the specific vocabulary words mechanically as outlined in the word lists for each textbook unit in the classroom (Yu & Lei, 2020). In addition, vocabulary exercises and dictation are the only methods to assess whether students have fully acquired the relevant vocabulary knowledge (Zhou, 2019). Furthermore, several educators even expect students to independently develop a new vocabulary learning without adequately offering teaching in the classroom.

The significance of vocabulary lies in its ability to facilitate the systematic and intricate construction of sentences. Insufficient vocabulary hampers students' ability to effectively articulate their ideas (Hoey, 2011; Wilkins, 1972). Woolley (2010) stated that students with poor comprehension face specific challenges and difficulties when acquiring new vocabulary. This is especially true for Chinese secondary vocational school students as they are predominantly underachievers in English. In a study by Qiu et al. (2023), they found that a considerable number of Chinese secondary vocational EFL participants in their study had problems in acquiring vocabulary. Due to their limited knowledge base, students may struggle to keep up with their English teacher during class and lack the independence to review the material on their own after class. They stated that their restricted vocabulary hindered their comprehension of the sentences, causing them to lose interest quickly and making it difficult for them to learn English. Furthermore, the constrained and conventional approach to teaching vocabulary, which focuses solely on the basic

elements and mechanical aspects, has exacerbated the challenge and resulted in a pervasive lack of success in students' vocabulary acquisition (Yip & Kwan, 2006). Within the context of a conventional classroom, students progressively experience a decline in interest and engagement when it comes to acquiring vocabulary, leading to a deterioration in their skills related to listening, speaking, reading, and writing (Gao et al., 2020). Moreover, students frequently find themselves confused by exam questions and achieve exceedingly poor results, impeding their advancement in English (Tseng & Schmitt, 2008).

Nation (2001) asserted that acquiring new vocabulary is a tedious task that requires a deliberate focus on the subtle distinctions in meaning. As memory retention decreases over time, relying solely on rote learning would result in poor results. In Chinese secondary vocational EFL classrooms, students often struggle to sustain focused attention on vocabulary learning for extended periods. In this particular environment, motivation plays a crucial role in the vocabulary learning process (Nation 2001). Motivation significantly impacts learning, and students with higher motivation generally have superior learning results compared to those with lower motivation (Gardner, 2007). Nevertheless, research indicates several issues associated with the motivation of students with lower levels of English proficiency (Okkan & Aydin, 2020), which is comparable to the characteristics of students in Chinese secondary vocational schools. For instance, during the process of learning vocabulary,

students who lack motivation are more likely to quickly abandon their efforts when they believe they are unable to acquire new vocabulary or effectively utilize it in spoken or written communication. Furthermore, the majority of students attempt to commit vocabulary items to memory by isolated methods such as creating vocabulary lists or making brief annotations during reading or listening passages. When examining the utilization of those lexical elements in written or spoken communication situations, they exhibit a significant inability to do so. When students are confused and unable to discern which term to choose or when to utilize a specific word, they consult the concept of task difficulty (Williams & Burden, 1997). According to Okkan and Aydin (2020), students who have had a negative experience acquiring vocabulary are less motivated to continue learning new vocabulary. In addition, Nation and Meara (2013) observed that vocational students are often demotivated by the arduous task of learning English vocabulary. This is because acquiring a comprehensive understanding of complex vocabulary necessitates regular and ongoing exposure. As a result, Chinese vocational secondary education students frequently face difficulties in their English language studies due to a deficient vocabulary base and a lack of motivation to learn new words (Li, 2019). As such, their learning outcomes are typically greatly influenced (Yudhiantara & Saehu, 2017; Ahmed et al., 2020).

1.4 Purpose of the study

This research aims to investigate the use of the CoI-based blended learning approach in the EFL classroom of Chinese secondary vocational schools, specifically focusing on enhancing students' **Vocabulary Test Scores (VTS)** and **Vocabulary Learning Motivation (VLM)**. By investigating if there is a significant difference between the experimental and control groups after the CoI-based blended learning approach in terms of students' VTS and VLM, this study also aims to examine if the relationship between the CoI (TP, SP, CP) and students' VTS and VLM changed before and after the CoI-based blended learning approach. In addition, it also aims to explore the predictive effect of the three dimensions of CoI (TP, SP, CP) on students' VTS and VLM. Furthermore, this study seeks to explore students' perceptions of this CoI-based blended learning approach. Finally, a framework and its related guidelines for Chinese secondary vocational EFL classrooms are aimed to be proposed.

1.5 Research objectives

Among Chinese EFL students in secondary vocational schools context, the research objectives of this study are:

1)To investigate the significant difference between using the CoI-based blended learning and the face-to-face approaches intervention in:

1A1: students' VTS in terms of their pre-test and post-test scores.

1A2: students' VLM in terms of their pre-intervention and post-intervention scores.

2)To examine the relationship between:

2A1: the CoI-based blended learning approach (TP, SP, CP) and students' VTS before and after the intervention.

2A2: the CoI-based blended learning approach (TP, SP, CP) and students' VLM before and after the intervention.

3)To determine if the three dimensions of the CoI-based blended learning approach (TP, SP, CP) significantly predict:

3A1: students' VTS in terms of their post-test scores.

3A2: students' VLM in terms of their post-intervention scores.

4)To explore students' perceptions of the CoI-based blended learning approach for enhancing their VTS and VLM in the context of Chinese secondary vocational schools' EFL education.

1.6 Research questions

Among Chinese EFL students in secondary vocational schools context, the research questions of this study are:

1)What is the significant difference between using the CoI-based blended learning and the face-to-face approaches intervention in:

1A1: students' VTS in terms of their pre-test and post-test scores?

1A2: students' VLM in terms of their pre-intervention and post-intervention scores?

2)What is the relationship between:

2A1: the CoI-based blended learning approach (TP, SP, CP) and students' VTS before and after the intervention?

2A2: the CoI-based blended learning approach (TP, SP, CP) and students' VLM before and after the intervention?

3)Do the three dimensions of the CoI-based blended learning approach (TP, SP, CP) significantly predict:

3A1: students' VTS in terms of their post-test scores?

3A2: students' VLM in terms of their post-intervention scores?

4) What are students' perceptions of the CoI-based blended learning approach for enhancing their VTS and VLM in the context of Chinese secondary vocational schools' EFL education?

1.7 Research hypotheses

As part of an experimental study, the research hypotheses for Research Questions 1, 2, and 3 are as follows:

Research Question 1A1:

a.Null hypothesis, H1A1-1_0: There is no significant difference in students' VTS in the face-to-face approach in terms of their pre-test and post-test scores.

b.Alternative hypothesis, H1A1-1_1: There is a significant difference in students' VTS in the face-to-face approach in terms of their pre-test and post-test scores.

c.Null hypothesis, H1A1-2_0: There is no significant difference in students' VTS in the CoI-based blended learning approach in terms of their pre-test and post-test scores.

d.Alternative hypothesis, H1A1-2_1: There is a significant difference in students' VTS in the CoI-based blended learning approach in terms of their pre-test and post-test scores.

e.Null hypothesis, H1A1-3_0: There is no significant difference in students' VTS between the CoI-based blended learning and face-to-face approaches in terms of their post-test scores.

f.Alternative hypothesis, H1A1-3_1: There is a significant difference in students' VTS between the CoI-based blended learning and face-to-face approaches in terms of their post-test scores.

Research Question 1A2:

a.Null hypothesis, H1A2-1_0: There is no significant difference in students' VLM in the face-to-face approach in terms of their pre-intervention and post-intervention scores.

b.Alternative hypothesis, H1A2-1_1: There is a significant difference in students' VLM in the face-to-face approach in terms of their pre-intervention and post-intervention scores.

c.Null hypothesis, H1A2-2_0: There is no significant difference in students' VLM in the CoI-based blended learning approach in terms of their pre-intervention and post-intervention scores.

d.Alternative hypothesis, H1A2-2_1: There is a significant difference in students' VLM in the CoI-based blended learning approach in terms of their pre-intervention and post-intervention scores.

e.Null hypothesis, H1A2-3_0: There is no significant difference in students' VLM between the CoI-based blended learning and face-to-face approaches in terms of their post-intervention scores.

f.Alternative hypothesis, H1A2-3_1: There is a significant difference in students' VLM between the CoI-based blended learning and face-to-face approaches in terms of their post-intervention scores.

Research Question 2A1:

a.**Null hypothesis, H2A1-1_0:** There is no significant relationship between the following variables before the CoI-based blended learning approach intervention:

i.CoI and VTS

ii. TP and VTS

iii. SP and VTS

iv. CP and VTS.

b.Alternative hypothesis, H2A1-1_1: There is a significant relationship between the following variables before the CoI-based blended learning approach intervention:

i.CoI and VTS

ii. TP and VTS

iii. SP and VTS

iv. CP and VTS.

c.Null hypothesis, H2A1-2_0: There is no significant relationship between the following variables after the CoI-based blended learning approach intervention:

i.CoI and VTS

ii. TP and VTS

iii. SP and VTS

iv. CP and VTS.

d.Alternative hypothesis, H2A1-2_1: There is a significant relationship between the following variables after the CoI-based blended learning approach intervention:

i.CoI and VTS

ii. TP and VTS

iii. SP and VTS

iv. CP and VTS.

Research Question 2A2:

a.Null hypothesis, H2A2-1_0: There is no significant relationship between the following variables before the CoI-based blended learning approach intervention:

i.CoI and VLM

ii.TP and VLM

iii.SP and VLM

iv.CP and VLM.

b.Alternative hypothesis, H2A2-1_1: There is a significant relationship between the following variables before the CoI-based blended learning approach intervention:

i.CoI and VLM

ii.TP and VLM

iii.SP and VLM

iv.CP and VLM.

c.Null hypothesis, H2A2-2_0: There is no significant relationship between the following variables after the CoI-based blended learning approach intervention:

i.CoI and VLM

ii.TP and VLM

iii.SP and VLM

iv.CP and VLM.

d.Alternative hypothesis, H2A2-2$_1$: There is a significant relationship between the following variables after the CoI-based blended learning approach intervention:

i.CoI and VLM

ii. TP and VLM

iii. SP and VLM

iv. CP and VLM.

Research Question 3A1:

a.Null hypothesis, H3A1-1$_0$: The three dimensions of CoI (TP, SP, CP) have no significant predictive effect on students' VTS after the CoI-based blended learning approach intervention.

i.TP has no significant predictive effect on students' VTS

ii. SP has no significant predictive effect on students' VTS

iii. CP has no significant predictive effect on students' VTS

b.Alternative hypothesis, H3A1-1_1: The three dimensions of CoI (TP, SP, CP) have a significant predictive effect on students' VTS after the CoI-based blended learning approach intervention.

i.TP has a significant predictive effect on students' VTS

ii. SP has a significant predictive effect on students' VTS

iii. CP has a significant predictive effect on students' VTS

Research Question 3A2:

a.Null hypothesis, H3A2-1_0: The three dimensions of CoI (TP, SP, CP) have no significant predictive effect on students' VLM after the CoI-based blended learning approach intervention.

i.TP has no significant predictive effect on students' VLM

ii. SP has no significant predictive effect on students' VLM

iii. CP has no significant predictive effect on students' VLM

b.Alternative hypothesis, H3A2-1_1: The three dimensions of CoI (TP, SP, CP) have a significant predictive effect on students' VLM after the CoI-based blended learning approach intervention.

i.TP has a significant predictive effect on students' VLM

ii. SP has a significant predictive effect on students' VLM

iii. CP has a significant predictive effect on students' VLM

1.8 Theoretical framework

Every quantitative, qualitative, or mixed-method empirical investigation is grounded in a theoretical framework (Friedman, 1970). As a fundamental principle, all research necessitates a valid theoretical framework to establish the importance and significance of the work (Lederman & Lederman, 2015). Considering the objective of the current study, which is to examine the use of a CoI-based blended learning approach to enhance students' VTS and VLM, the theoretical framework incorporates Constructivism, including Social Constructivism, Cognitive Constructivism, and the CoI framework is presented in Figure 1.2. In addition, two types of variables, namely independent variables, the CoI-based blended learning approach, and dependent variables, VTS and VLM, are also presented.

Constructivism is a prominent educational theory (Qiu, 2019). Unlike Behaviorism and Cognitivism, Constructivism focuses on fostering learners' motivation, critical thinking, and construction of meaning and knowledge, thereby promoting meaningful learning (Gray, 1997). Social Constructivism is a theory of knowledge that explores the knowledge jointly generated by individuals (Amineh &

Asl, 2015). Vygotsky (1978) asserted that cognitive development occurs on a social level and later on an individual level. It emphasizes that individuals construct meaning through interactions with others and their environment. In line with this, social constructivists favor collaborative elaboration. This approach encourages students to share their unique viewpoints to foster mutual understanding that cannot be achieved through individual learning (Greeno et al., 1996). From the social constructivist perspective, the most effective educational methods promote learning from and alongside peers, such as cooperative learning, group projects, problem-based learning, online quests, anchored instruction, and peer mentoring (Shunk, 2011). On the other hand, Cognitive Constructivism posits that students' mental processes are responsible for constructing and structuring knowledge in the context of their learning goals and environment (Hruby & Roegiers, 2012). In addition, Piaget's theories highlight the individual's process of knowledge acquisition through experiential learning (Powell, 2009). For students to grasp the concepts being taught, rather than merely memorize them, they must develop substantial independent thought in the content or subject areas (Powell, 2009).

Blended learning can be successful with the proper methodology in place. Dewey's (1933) work on community and inquiry formed the basis of the CoI framework. Introduced by Garrison et al. (2001), the CoI framework, which encompasses three elements: Teaching Presence, Social Presence, and Cognitive

Presence and emphasizes collaborative and constructive learning as well as critical reflective dialogue, provides a new perspective, method, and tool for blended learning.

To generate students' interest in learning new vocabulary and provide ample practice opportunities, the researcher employed a variety of online and offline teaching tools and activities rooted in the Constructivist and CoI framework. The aim was to foster an interactive, collaborative, negotiable, and constructive online and offline learning environment (Hong & Ning, 2020). Efforts were made to strengthen cognitive, teaching, and social presences. Activities involving charts, images, animations, videos, film and television clips, graphics, music, and hyperlinks were available online and in traditional classrooms. The CoI-based blended learning approach effectively utilized the accessibility of online materials and the manageability of offline classrooms to meet the communication needs of teaching and learning. To cultivate a student-centered, independent, open, cutting-edge, and inquiry-based learning atmosphere expected to enhance students' motivation in vocabulary learning, the researcher employed inspection and evaluation to guide the presentation of tasks and facilitate exploratory teaching. By engaging in online and offline activities, students were more likely to enhance their cognitive understanding of vocabulary knowledge, improve vocabulary learning motivation, and ultimately achieve meaningful learning outcomes.

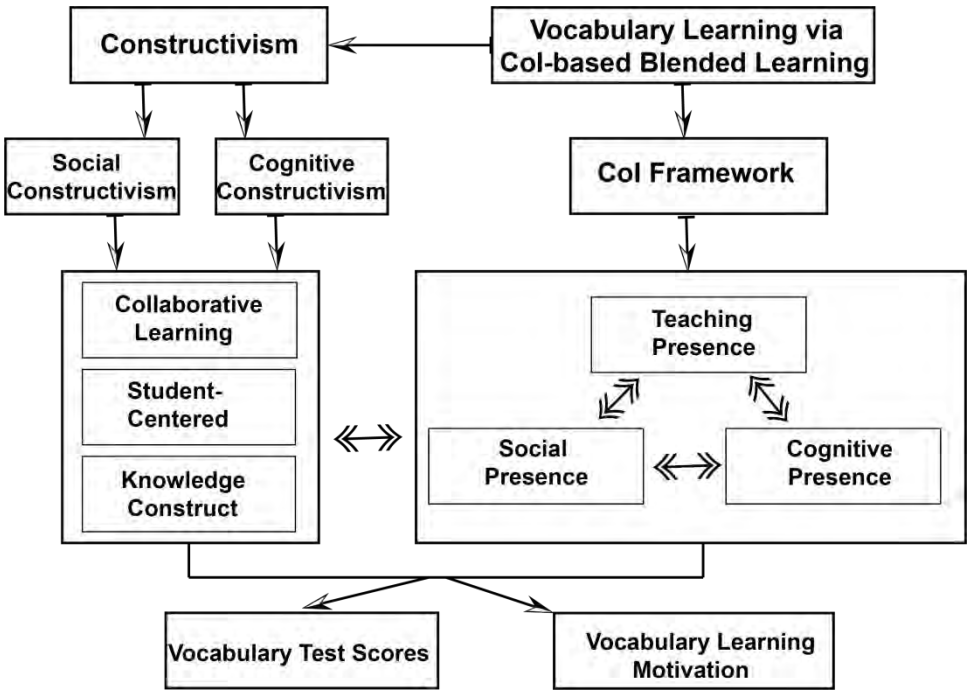

Figure 1.2. Theoretical framework

1.9 Operational definition

1.9.1 Vocational education

Vocational education is defined as encompassing industrial education, technical education, manual education, and career education (Grubb & Lazerson, 1975). It primarily focuses on practical and applied skills to prepare students for work positions in various industries and commerce (Benavot, 1983; Bishop, 1989). In the context of this study, secondary vocational education refers to vocational education provided at

the senior high school level by different types of vocational colleges and schools, including **Five-year-system Colleges (FC), Technician Colleges (TC), Secondary-Specialized Schools (SSS), Vocational High Schools (VHS), and Skilled Worker Schools (SWS)**.

1.9.2 Blended learning

According to Bonk and Graham (2012), blended learning is commonly defined as the combination of traditional face-to-face and online instruction, and online learning is frequently delivered via a web-based platform. Recently, blended learning has been redefined as technology-based learning, particularly a learning model that combines in-classroom teaching with the use of internet connectivity, closely integrating discussion and learning within the blended learning system (Widjaja & Aslan, 2022). In this study, blended learning refers to a learning approach that combines traditional face-to-face sessions, websites, online platforms, and various digital tools using the CoI framework, aiming to create a collaborative blended learning environment for students and motivate them to acquire targeted vocabulary knowledge successfully.

1.9.3 Traditional face-to-face approach

The traditional face-to-face approach, as defined by Gai and Du (2016), refers to the talk-and-chalk style, the defining aspect of which is the teacher-centered nature of the entire teaching process while students frequently serve as note-takers. In the current study, the traditional face-to-face approach means the teacher uses the talk-and-chalk mode to give students vocabulary learning instruction in Chinese secondary vocational EFL classrooms.

1.9.4 Vocabulary test scores

The term “vocabulary” refers to students’ grasp of oral and written words, which includes conceptual knowledge that extends beyond a mere dictionary definition (Snow et al., 2005). In this study, vocabulary test score refers to the score the students get from the researcher-developed vocabulary test before and after receiving the CoI-based blended learning intervention and traditional face-to-face instruction.

1.9.5 Vocabulary learning motivation

Vocabulary Learning Motivation is defined as the driving force behind vocabulary learning (Dörnyei & Ryan, 2015), directly impacting learning outcomes (Li, 2021). In this study, vocabulary learning motivation refers to students' highly motivated behaviors that help them act consciously and try to achieve specific goals in learning vocabulary positively and not get bored in finishing the task (Aminah & Nugraha, 2021).

1.9.6 Learning Management System

A **Learning Management System (LMS)** is an online technology that provides menus or features specifically designed to facilitate the management and delivery of educational material. It serves as a framework for capturing different levels of progressive learning through various online operations (Jung & Huh, 2019). The LMS is a complex network of interconnected technologies offering a range of services to teachers and students. Common functionalities of an LMS include content management, ensuring copyright compliance, delivering visual media, managing assessment and feedback processes, maintaining student records, providing collaboration tools, utilizing social media, and offering student services and support (Hill, 2021; Marshall & Sankey, 2023). This study used the ChaoXing Learning

Platform, a well-known online platform in the Chinese school setting, as the applied LMS.

1.9.7 Community of Inquiry

The CoI framework consists of three dimensions: teaching presence, social presence, and cognitive presence (Garrison et al., 2000). Teaching presence encompasses the planning, guiding, and managing cognitive and social activities to achieve meaningful and valuable learning outcomes (Anderson et al., 2001). The concept comprises three subordinate components identified by Garrison et al. (2000): Design and organization, facilitating discourse, and direct instruction. Social presence encompasses establishing an environment that encourages and promotes inquisitive inquiries, skepticism, and the sharing of explanatory concepts (Garrison, 2017). As defined by Garrison et al. (2000), the idea of social presence consists of three sub-dimensions: affective expression, open communication, and group cohesion. Cognitive presence is the process of collectively exploring, constructing, resolving, and confirming understanding through cooperation and reflection within a community of inquiry, as defined by Garrison (2007). Cognitive presence is characterized by four distinct phases (Garrison et al., 2000). These phases include a triggering event that sparks curiosity and prompts questions, an exploration phase where information and ideas

are gathered, an integration step where meaningful solutions or explanations are constructed, and a final resolution stage where the effectiveness of the problem-solving process is evaluated. In this study, the researcher integrated the CoI framework into blended learning to implement English especially vocabulary instruction in Chinese secondary vocational EFL classrooms.

1.9.8 English as a foreign language students

English as a foreign language is taught in schools, but it is not crucial to the national or social fabric. Students do not require English as a foreign language for their daily lives or social and professional progress (Rustamov, 2022). They solely acquire English language skills inside a classroom setting. The term “EFL students” in this study refers to students in Chinese secondary vocational schools who are solely learning English as an academic topic in the classroom and do not have a practical need to apply it in their daily lives.

1.10 Study limitations

Regardless of its type, every study is bound to have certain limitations that can directly impact the final results. The following limitations may arise to some extent during this research.

The absence of random assignment is a significant constraint in this study because the Technician College offers intact classes. As a result, a quasi-experimental design was employed since random allocation was not feasible. Additionally, according to the characteristics of vocational majors, a limitation in terms of the gender imbalance among students exists in this study. Furthermore, the focus on vocabulary, which is particularly crucial for first-year students at the initial stage of their secondary education, limits the generalizability of the findings. If the CoI-based blended teaching approach can enhance students' vocabulary knowledge and vocabulary learning motivation, it may positively impact their future English subject learning. As the sample for this study was limited to first-year students, future studies will be needed to conclude the influence of this CoI-based integrated teaching method on senior students.

The results obtained from this study might provide insights into the context in which a limited number of researchers examined. Although a comparative study

among different provinces in China can strengthen the generalizability, significance, and reference value of this study for vocational education reform nationwide, the research was conducted solely in Chongqing, China, due to location constraints. This limitation narrows the scope of the investigation, which might be advantageous.

1.11 Significance of the study

This study provides empirical evidence that a CoI-based blended learning approach can significantly impact students' achievement in VTS and VLM in the context of secondary vocational EFL education in China. The findings of this systematic and in-depth investigation hold significant implications for various stakeholders at the macro, meso, and micro levels of the education system.

At the macro level, the results of this study may inform upper administrators and policymakers in the reform of secondary vocational education. The study's insights and significant references can draw attention to the importance of Chinese secondary vocational EFL education and the role of educational technology and innovative strategies in the new era. The findings may motivate policymakers to promote blended learning, specifically through the lens of the CoI framework, and allocate funding for the necessary infrastructure to implement it effectively in Chinese

secondary vocational education.

The evidence for the effectiveness of the CoI-based blended learning in students' VTS and VLM among Chinese secondary vocational schools may encourage the developers to integrate the CoI-based blended learning approach into teaching and learning to create a blended collaborative learning environment. It may have the potential to support the developers in developing an English informatization curriculum system, enabling EFL instruction to transcend the limitations of traditional offline classrooms and enhance the quality of teaching. Moreover, secondary vocational schools can make informed investments in hardware and software equipment to facilitate blended learning.

By adopting the CoI-based blended learning approach for language instruction, this study conclusively demonstrates its effectiveness in engaging students and making teaching more relevant, enjoyable, and motivating. It might offer valuable insights into applying the CoI framework for improving EFL students' vocabulary learning. It also provides Chinese secondary vocational EFL classrooms and English curriculum teaching with a framework and related guidelines that may be accessible and effective for students' enhancement in VTS and VLM.

1.12 Summary

To provide context for this study, the researcher first described the current background regarding the various challenges teachers and students face in vocabulary teaching and learning both in China and globally. Then went on to describe the specific problem facing secondary vocational school students in China, with regards to their English learning, in particular their difficulties with learning vocabulary. Afterwards, the study's rationale was presented, along with the study's objectives, research questions, and hypotheses. Furthermore, the study's theoretical framework and operational definition were elaborated to clarify and strengthen the research's justification. This chapter concludes with a thoughtful examination of the study's limitations and potential implications for China's secondary vocational education at the macro, meso, and micro levels. This section serves as a solid foundation for the subsequent sections of the study while offering a comprehensive overview of its content.

Table 1.1

Summary of chapter one

Background of study	**Problem statement**	**Aim of study**	**Research objectives**	**Research questions**	**Research hypotheses**	**Limitations**	**Significance**
1) Students passively absorb vocabulary from the teacher, leading to decreased initiative, motivation, creativity, innovation ability, and bad vocabulary performance;	1)The inadequate learning environment and restricted opportunities for language immersion beyond the classroom setting are factors that contribute to the below-average language abilities of students in Chinese secondary vocational schools;	To investigate the use of the CoI-based blended learning approach in the EFL classroom of Chinese secondary vocational schools to enhance students' VTS and VLM.	1)To investigate the significant difference between using the CoI-based blended learning and the face-to-face approaches intervention in: 1A1: students' VTS in terms of their pre-test and post-test scores. 1A2: students' VLM in terms of their pre-intervention and post-intervention scores;	1)What is the significant difference between using the CoI-based blended learning and the face-to-face approaches intervention in: 1A1: students' VTS in terms of their pre-test and post-test scores? 1A2: students' VLM in terms of their pre-intervention and post-intervention scores?	**Research Question 1A1:** **a.Null hypothesis, H1A1-1_0:** There is no significant difference in students' VTS in the face-to-face approach in terms of their pre-test and post-test scores. **b.Alternative hypothesis, H1A1-1_1:** There is a significant difference in students' VTS in the face-to-face approach in terms of their pre-test and post-test scores. **c.Null hypothesis, H1A1-2_0:** There is no significant difference in students' VTS in the CoI-based blended learning approach in terms of their pre-test and post-test scores. **d.Alternative hypothesis, H1A1-2_1:** There is a significant difference in students' VTS in the CoI-based blended learning approach in terms of their pre-test and post-test scores. **e.Null hypothesis, H1A1-3_0:** There is no significant difference in students' VTS between the CoI-based blended learning and face-to-face approaches in terms of their post-test scores. **f.Alternative hypothesis, H1A1-3_1:** There is a significant difference in students' VTS between the CoI-based blended learning and face-to-face approaches in terms of their post-test scores;	1)The absence of random assignment is a major constraint in this study due to the Technician College offering intact classes. As a result, a quasi-experimental design was employed;	1)The findings can motivate policymakers to promote the idea of blended learning, specifically through the lens of the CoI framework, and allocate funding for the necessary infrastructure to implement it effectively in Chinese secondary vocational education;

(Continue)

Table 1.1 *(Continued)*

Background of study	Problem statement	Aim of study	Research objectives	Research questions	Research hypotheses	Limitations	Significance
--	--	--	--	--	**Research Question 1A2:** **a.Null hypothesis, H1A2-1_0:** There is no significant difference in students' VLM in the face-to-face approach in terms of their pre-intervention and post-intervention scores. **b.Alternative hypothesis, H1A2-1_1:** There is a significant difference in students' VLM in the face-to-face approach in terms of their pre-intervention and post-intervention scores. **c.Null hypothesis, H1A2-2_0:** There is no significant difference in students' VLM in the CoI-based blended learning approach in terms of their pre-intervention and post-intervention scores. **d.Alternative hypothesis, H1A2-2_1:** There is a significant difference in students' VLM in the CoI-based blended learning approach in terms of their pre-intervention and post-intervention scores. **e.Null hypothesis, H1A2-3_0:** There is no significant difference in students' VLM between the CoI-based blended learning and face-to-face approaches in terms of their post-intervention scores. **f.Alternative hypothesis, H1A2-3_1:** There is a significant difference in students' VLM between the CoI-based blended learning and face-to-face approaches in terms of their post-intervention scores.	--	--

(Continue)

Table 1.1 *(Continued)*

Background of study	Problem statement	Aim of study	Research objectives	Research questions	Research hypotheses	Limitations	Significance
2)Blended learning has shown success in supplementing traditional face-to-face teaching with technology-based tools, leading to positive effects on vocabulary learning and higher levels of motivation;	2)Teachers frequently rely solely on a piece of chalk, a chalkboard, and verbal communication to provide students with a standardized method to instruction. Students are explicitly instructed to learn, repeat, or practice the specific vocabulary words mechanically as outlined in the word lists for each unit of the textbook in the classroom;	--	2)To examine the relationship between: 2A1: the CoI-based blended learning approach (TP, SP, CP) and students' VTS before and after the intervention. 2A2: the CoI-based blended learning approach (TP, SP, CP) and students' VLM before and after the intervention.	2)What is the relationship between: 2A1: the CoI-based blended learning approach (TP, SP, CP) and students' VTS before and after the intervention? 2A2: the CoI-based blended learning approach (TP, SP, CP) and students' VLM before and after the intervention?	**Research Question 2A1:** **a.Null hypothesis, H2A1-1_0:** There is no significant relationship between the following variables before the CoI-based blended learning approach intervention: i.CoI and VTS ii. TP and VTS iii. SP and VTS iv. CP and VTS. **b.Alternative hypothesis, H2A1-1_1:** There is a significant relationship between the following variables before the CoI-based blended learning approach intervention: i.CoI and VTS ii. TP and VTS iii. SP and VTS iv. CP and VTS. **c.Null hypothesis, H2A1-2_0:** There is no significant relationship between the following variables after the CoI-based blended learning approach intervention: i.CoI and VTS ii. TP and VTS iii. SP and VTS iv. CP and VTS. **d.Alternative hypothesis, H2A1-2_1:** There is a significant relationship between the following variables after the CoI-based blended learning approach intervention: i.CoI and VTS ii. TP and VTS iii. SP and VTS iv. CP and VTS.	2)The characteristics of vocational majors led to a limitation in terms of the gender imbalance among students;	2)The evidence for the effectiveness of CoI-based blended learning in students' VTS and VLM among Chinese secondary vocational schools can encourage the developers to integrate the CoI-based blended learning approach into teaching and learning to create a blended collaborative learning environment;

(Continue)

Table 1.1 *(Continued)*

Background of study	Problem statement	Aim of study	Research objectives	Research questions	Research hypotheses	Limitations	Significance
--	--	--	--	--	**Research Question 2A2:** **a.Null hypothesis, H2A2-1_0:** There is no significant relationship between the following variables before the CoI-based blended learning approach intervention: i.CoI and VLM ii. TP and VLM iii .SP and VLM iv.CP and VLM. **b.Alternative hypothesis, H2A2-1_1:** There is a significant relationship between the following variables before the CoI-based blended learning approach intervention: i.CoI and VLM ii.TP and VLM iii.SP and VLM iv.CP and VLM. **c.Null hypothesis, H2A2-2_0:** There is no significant relationship between the following variables after the CoI-based blended learning approach intervention: i.CoI and VLM ii.TP and VLM iii.SP and VLM iv.CP and VLM. **d.Alternative hypothesis, H2A2-2_1:** There is a significant relationship between the following variables after the CoI-based blended learning approach intervention: i.CoI and VLM ii. TP and VLM iii. SP and VLM iv. CP and VLM.	--	--

(Continue)

Table 1.1 *(Continued)*

Background of study	Problem statement	Aim of study	Research objectives	Research questions	Research hypotheses	Limitations	Significance
3)The establishment of learning communities that foster discussions and collaboration among students facilitated their understanding and perception of the target knowledge.	3)Within the context of a conventional classroom, students progressively experience a decline in interest and engagement when it comes to acquiring vocabulary, leading to a deterioration in their skills related to listening, speaking, reading, and writing;	--	3)To determine if the three dimensions of the CoI-based blended learning approach (TP, SP, CP) significantly predict: 3A1: students' VTS in terms of their post-test scores. 3A2: students' VLM in terms of their post-intervention scores.	3)Do the three dimensions of the CoI-based blended learning approach (TP, SP, CP) significantly predict: 3A1: students' VTS in terms of their post-test scores? 3A2: students' VLM in terms of their post-intervention scores?	**Research Question 3A1:** **a.Null hypothesis, H3A1-1_0:** The three dimensions of CoI (TP, SP, CP) have no significant predictive effect on students' VTS after the CoI-based blended learning approach intervention. i.TP has no significant predictive effect on students' VTS ii. SP has no significant predictive effect on students' VTS iii. CP has no significant predictive effect on students' VTS **b.Alternative hypothesis, H3A1-1_1:** The three dimensions of CoI (TP, SP, CP) have a significant predictive effect on students' VTS after the CoI-based blended learning approach intervention. i.TP has a significant predictive effect on students' VTS ii. SP has a significant predictive effect on students' VTS iii. CP has a significant predictive effect on students' VTS **Research Question 3A2:** **a.Null hypothesis, H3A2-1_0:** The three dimensions of CoI (TP, SP, CP) have no significant predictive effect on students' VLM after the CoI-based blended learning approach intervention. i.TP has no significant predictive effect on students' VLM ii. SP has no significant predictive effect on students' VLM iii. CP has no significant predictive effect on students' VLM	3)The focus on vocabulary among first-year students limits the generalizability of the findings.	3)It might offer valuable insights into the application of the CoI framework for improving EFL students' vocabulary learning and provides Chinese secondary vocational EFL classrooms and English curriculum teaching with a framework and related guidelines that maybe accessible and effective for 2) students' enhancement in VTS and VLM.

(Continue)

Table 1.1 *(Continued)*

Background of study	Problem statement	Aim of study	Research objectives	Research questions	Research hypotheses	Limitations	Significance
--	--	--	--	--	**b.Alternative hypothesis, H3A2-1$_1$:** The three dimensions of CoI (TP, SP, CP) have a significant predictive effect on students' VLM after the CoI-based blended learning approach intervention. i.TP has a significant predictive effect on students' VLM ii. SP has a significant predictive effect on students' VLM iii. CP has a significant predictive effect on students' VLM	--	--
--	4)Chinese vocational secondary education students frequently face difficulties in their English language studies as a result of a deficient vocabulary base and a lack of motivation to learn new words.	--	4)To explore students' perceptions of the CoI-based blended learning approach for enhancing their VTS and VLM in the context of Chinese secondary vocational schools' EFL education.	4) What are students' perceptions of the CoI-based blended learning approach for enhancing their VTS and VLM in the context of Chinese secondary vocational schools' EFL education?	--	--	--