

**THE DEVELOPMENT AND EFFECTIVENESS OF
THE LWPBL MODULE TOWARDS
MOTIVATION, SELF-EFFICACY AND,
LITERATURE AND WRITING ACHIEVEMENT
AMONG HIGHER VOCATIONAL COLLEGE
STUDENTS IN CHINA**

TANG SHENLONG

UNIVERSITI SAINS MALAYSIA

2025

**THE DEVELOPMENT AND EFFECTIVENESS OF
THE LWPBL MODULE TOWARDS
MOTIVATION, SELF-EFFICACY AND,
LITERATURE AND WRITING ACHIEVEMENT
AMONG HIGHER VOCATIONAL COLLEGE
STUDENTS IN CHINA**

by

TANG SHENLONG

**Thesis submitted in fulfilment of the requirements
for the degree of
Doctor of Philosophy**

January 2025

ACKNOWLEDGEMENT

I would like to express my deep and genuine gratitude to my supervisor, Dr. Siti Zuraidah Binti Md Osman, for her significant support of my PhD study and related research and for her dedication, expertise, and scholarly guidance and suggestions that helped to facilitate the completion of this thesis. I would also like to convey my sincere appreciation to my panel of examiners, Dr. Fadzilah Bte Amzah and Dr. Md Baharuddin Bin Abdul Rahman, for their advice and guidance on my thesis since the beginning. My sincere thanks are extended to all of the PPIP USM staff. Special thanks go to the experts who willingly validated my research instruments. Many thanks to my colleagues for helping implement the module and collect data successfully. Finally, I would like to thank my mother, father, wife, and friends for their support and patience throughout my studies.

TABLE OF CONTENTS

ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	viii
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xvi
LIST OF APPENDICES	xvii
ABSTRAK	xviii
ABSTRACT	xx
CHAPTER 1 INTRODUCTION	1
1.1 Introduction	1
1.2 Background of the Study.....	6
1.3 Statement of the Problem	12
1.4 Research Objectives	19
1.5 Research Questions	20
1.6 Research Hypothesis	20
1.7 Significance of the Study	21
1.8 Limitations of the Study.....	22
1.9 Operational Definitions.....	24
1.9.1 Motivation	24
1.9.2 Self-efficacy	24
1.9.3 Literature and Writing Achievement	25
1.9.4 College Chinese Course	25
1.9.6 Literature and Writing Problem-Based Learning Module	25
1.10 Summary	26
CHAPTER 2 LITERATURE REVIEW	27
2.1 Introduction	27

2.2	Higher Education Institutions in China.....	27
2.3	College Chinese Course in China	29
2.3.1	Development of College Chinese Course in China.....	29
2.3.2	Content and Objective of College Chinese Course in China	31
2.3.2	Orientation of College Chinese Course in China.....	33
2.3.3	The Reform of College Chinese Course	35
2.4	Problem-Based Learning.....	38
2.4.1	Concept of Problem-Based Learning.....	38
2.4.2	Characteristics of Problem-Based Learning.....	41
2.4.3	The Model of Problem-Based Learning.....	45
2.4.4	The Role of Teachers and Students in the LWPBL Module.....	51
2.5	Motivation	56
2.5.1	Motivation and Learning Motivation	56
2.5.2	Motivation to Learn College Chinese for Vocational Student	58
2.5.3	Problem-Based Learning and Students' Motivation	64
2.6	Self-efficacy	69
2.6.1	Self-efficacy and Learning Self-efficacy	69
2.6.2	Self-efficacy to Learn College Chinese of Vocational Students.....	71
2.6.3	Problem-Based Learning and Students' Self-efficacy	75
2.7	Literature and Writing Achievement	81
2.7.1	Achievement and Learning Achievement.....	81
2.7.2	Achievement to Learn College Chinese of Vocational Students	82
2.8.3	Problem-Based Learning and Students' Achievement	84
2.8	Theoretical Framework	90
2.8.1	Constructivist Learning Theory	90
2.8.2	Situated Learning Theory.....	96
2.9	Conceptual Framework	102
2.10	Summary	104
	CHAPTER 3 METHODOLOGY	106

3.1	Introduction	106
3.2	Research Design.....	106
3.2.1	The Experimental Group.....	107
3.2.2	The Control Group	108
3.3	Research Variables.....	110
3.4	The Procedure of Research	111
3.5	Population and Sample of the Study	113
3.6	Instruments of the Study	118
3.6.1	Motivation Questionnaire.....	118
3.6.2	Self-efficacy Questionnaire.....	120
3.6.3	Literature and Writing Achievement Test	120
3.7	Validity of Instruments	122
3.8	Pilot study	125
3.8.1	Reliability of Instruments.....	126
3.9	Instructions to Conduct the Research.....	128
3.9.1	Instructions for Lectures	128
3.9.2	Instructions for Students in the Experimental Group.....	130
3.9.3	Instructions for Students in the Control Group	131
3.10	Validity Threats and Countermeasures	131
3.11	Data Analysis Procedures and Method	132
3.12	Summary	136
CHAPTER 4 DESIGN AND DEVELOPMENT OF LWPBL MODULE.....		137
4.1	Introduction	137
4.2	ADDIE Model.....	137
4.3	Analyze	139
4.3.1	Learner	141
4.3.2	Teacher.....	147
4.3.3	Syllabus	149
4.3.4	Learning Resources	150

4.4	Design	154
4.4.1	Learning Objective.....	156
4.4.2	Learning Outcome.....	157
4.4.3	Learning Activity	159
4.4.4	Learning Materials	168
4.5	Development	170
4.5.1	Results of the Guideline of the LWPBL Module.....	170
4.5.2	Results of the LWPBL Module.....	172
4.5.3	Validity of the Module	220
4.6	Implementation	230
4.7	Evaluation	231
4.8	Conclusion	238
4.8.1	Conclusion of Analysis	238
4.8.2	Conclusion of the Module Draft (Design and Development).....	239
4.8.3	Conclusion of the Implementation	240
4.8.4	Conclusion of the Evaluation	241
4.9	Summary	241
	CHAPTER 5 DATA ANALYSIS AND RESULTS.....	242
5.1	Introduction	242
5.2	Demographics	242
5.3	Descriptive statistics.....	244
5.3.1	Descriptive statistics of the test of the experimental group	244
5.3.2	Descriptive Statistics of the test of the two Group	245
5.4	Inferential Statistical Analysis	246
5.4.1	Research Question 1.4.1.....	247
5.4.2	Research Question 1.4.2.....	250
5.4.3	Research Question 1.4.3.....	252
5.4.4	Research Question 1.4.4.....	254
5.4.5	Research Question 1.4.5.....	258

5.4.6	Research Question 1.4.6.....	260
5.5	The Results of Hypotheses Testing.....	263
5.6	Summary	264
CHAPTER 6 DISCUSSION AND CONCLUSION.....		265
6.1	Introduction.....	265
6.2	Discussion of Findings.....	265
6.2.1	The Effectiveness of the LWPBL Module on Motivation	266
6.2.2	The Effectiveness of the LWPBL Module on Self-efficacy	272
6.2.3	The Effectiveness of the LWPBL Module on LW Achievement ..	277
6.3	Implications of the Findings	283
6.3.1	Implications to PBL and Learning Theory	283
6.3.2	Implications to College Chinese Teachers and Learners	287
6.3.3	Implications to Higher Education Institutions	290
6.4	Contribution of the Research	292
6.5	Suggestions for Future Studies	294
6.6	Conclusion	296
REFERENCES.....		298
APPENDICES		
LIST OF PUBLICATIONS		

LIST OF TABLES

	Page
Table 1.1	Final grades for four semesters of college Chinese course 17
Table 2.1	Examples of research on PBL and motivation..... 68
Table 2.2	Examples of research on PBL and self-efficacy 81
Table 2.3	Examples of research on PBL and achievement..... 89
Table 3.1	Quasi-experimental Design of the Study 108
Table 3.2	Criteria for selecting study location 112
Table 3.3	The Final Sampling Result of the Study 115
Table 3.4	Issues and Suggestions from the Experts 120
Table 3.5	Validity Analysis of Research Instruments by Experts 121
Table 3.6	The Construct validity of Motivation and self-efficacy Scale 122
Table 3.7	Questionnaire Item Analysis by Experts..... 125
Table 3.8	Effect Size Interpretation and Formula Calculating Cohen's d..... 132
Table 3.9	The Hypotheses, Analysis Method, and Instruments of the Study 133
Table 4.1	The Demographic of Respondent for Analysis Stage..... 143
Table 4.2	Demographic Data of the Teachers..... 149
Table 4.3	The General Learning Objectives of the College Chinese in Syllabus..... 156
Table 4.4	The Learning Outcomes of the Topics in Module 157
Table 4.5	The Instrument Outline to Validate the LWPBL Module..... 208
Table 4.6	The Instrument Outline to Validate the LWPBL Module..... 210
Table 4.7	Experts' Validation of the Design of the LWPBL Module 211
Table 4.8	Experts' Validation of the Content of the LWPBL Module 212

Table 4.9	Experts' Validation of the Implementation of the LWPBL Module .	213
Table 4.10	Experts' Validation of the Time Allocation of the LWPBL Module	213
Table 4.11	Experts' Validation of the Language of the LWPBL Module	214
Table 4.12	Additional Comments and Suggestions about the LWPBL Module .	214
Table 4.13	The Advantages of the LWPBL Module	215
Table 4.14	Improvements on the Disadvantages of the LWPBL Module	215
Table 4.15	Core Perspectives About the LWPBL Module from 2 PBL Experts	215
Table 4.16	Student Assessment Information in LWPBL Module	221
Table 5.1	Demographic Information of Respondents	231
Table 5.2	Mean and Standard Deviation of the Experimental Group.....	233
Table 5.3	Mean and Standard Deviation of the Three Variables in Post-test...	234
Table 5.4	Normality Test of Motivation for the Experimental Group.....	236
Table 5.5	Paired Samples T-test of Experimental Group of Motivation	238
Table 5.6	Normality Test of Self-efficacy for the Experimental Group	238
Table 5.7	Paired Samples T-test of Experimental Group of Self-efficacy.....	239
Table 5.8	Normality test of LW Achievement for the Experimental Group ...	240
Table 5.9	Paired Samples T-test of Experimental Group of Achievement.....	242
Table 5.10	Normality Test of Motivation for the two Groups.....	243
Table 5.11	Levene's Test for Equality of Variances	244
Table 5.12	Independent Sample T-test of the Motivation.....	245
Table 5.13	Normality Test of Self-efficacy for the two Groups	246
Table 5.14	Levene's Test for Equality of Variances	247
Table 5.15	Independent Sample T-test of the Self-efficacy in Post-test	248
Table 5.16	Normality Test of LW Achievement of Post-test	248

Table 5.17	Levene's Test for Equality of Variances	249
Table 5.18	Test Between-Subjects Effects LW Achievement Post-Test.....	250
Table 5.19	ANCOVA for Achievement Post-Test using Pre-Test as Covariate..	251
Table 5.20	Summary of the Hypotheses Tested.....	251

LIST OF FIGURES

	Page
Figure 2.1	The Problem-based Learning Model 46
Figure 2.2	The PBL Model used in this Study..... 47
Figure 2.3	The Theoretical Framework of the Study 103
Figure 2.4	The Conceptual Framework of the Study 105
Figure 3.1	Research Procedure Flow Chart 111
Figure 3.2	Sample Size Determination 115
Figure 3.3	Sample size calculated by G-Power 116
Figure 3.4	Sample Size Calculation Formula by Krejcie and Morgan (1970) . 118
Figure 3.5	Sample Size Calculation Based on Krejcie and Morgan (1970) 118
Figure 3.6	Flow Chart of the Workshop 129
Figure 4.1	The General Conceptual Framework of the ADDIE Model..... 138
Figure 4.2	The ADDIE Model used in this Study 138
Figure 4.3	Sample Size Calculation Formula by Krejcie and Morgan (1970) . 142
Figure 4.4	Sample Size Calculation Based on Krejcie and Morgan (1970) 142
Figure 4.5	The Biggest Problems when Learning College Chinese 143
Figure 4.6	Students' Perception of Online Learning 144
Figure 4.7	Students' Preferred Method of Learning College Chinese..... 145
Figure 4.8	Students' Perception of the Gains to Learning College Chinese..... 146
Figure 4.9	Students' Perception of using PBL to Learn College Chinese 146
Figure 4.10	Students' Favorite Topics to Learn College Chinese 147
Figure 4.11	The Multimedia Classroom used for this Study 152

Figure 4.12	Online Teaching Platform Used for this Study	153
Figure 4.13	The Dashboard of the LWPBL Module in the Platform.....	153
Figure 4.14	Example of homework upload interface.....	153
Figure 4.15	Online Open Course Resources Used for this Study	154
Figure 4.16	The PBL Model Used in the Formal Study	156
Figure 4.17	The Learning Process of the PBL in the Experimental Group	162
Figure 4.18	The Learning Process of the Control Group.....	167
Figure 4.19	The Sample of Online Learning Materials for the LWPBL Module	169
Figure 4.20	The Sample of Color Pictures and Icons for the LWPBL Module..	170
Figure 4.21	The Guideline of the LWPBL Module	171
Figure 4.22	The Framework of the LWPBL Module	173
Figure 4.23	The cover of the LWPBL module in the online platform.....	174
Figure 4.24	The Framework of Topic 1 Online Learning in Platform	175
Figure 4.25	Basic information for Topic 1	176
Figure 4.26	Learning Objectives and Outcomes for Topic1	177
Figure 4.27	The Learning Materials in Online Platform for Topic 1	177
Figure 4.28	Online Learning Methods and Requirements for Topic 1	179
Figure 4.29	Creating Situations and Asking Questions for Topic 1	180
Figure 4.30	Working in Groups to Explore Problems for Topic 1	182
Figure 4.31	Solving Problems and Showing Results for Topic 1	183
Figure 4.32	The Evaluation and Reflection for Topic 1	184
Figure 4.33	Homework, Assessment and Additional Resources for Topic 1	185
Figure 4.34	The Framework of Topic 2 Online Learning in Platform	184
Figure 4.35	Basic information for Topic 2	187

Figure 4.36	Figure 4.26 Learning Objectives and Outcomes for Topic 2	187
Figure 4.37	The Learning Materials in Online Platform for Topic 2	188
Figure 4.38	Online Learning Methods and Requirements for Topic 2	190
Figure 4.39	Creating Situations and Asking Questions for Topic 2	190
Figure 4.40	Case 1-plan (Good).....	191
Figure 4.41	Case 2-plan (Bad)	191
Figure 4.42	Working in Groups to Explore Problems for Topic 2	193
Figure 4.43	Solving Problems and Showing Results for Topic 2.....	194
Figure 4.44	The Evaluation and Reflection for Topic 2	195
Figure 4.45	Homework, Assessment and Additional Resources for Topic 2	196
Figure 4.46	The Framework of Topic 3 Online Learning in Platform	197
Figure 4.47	Basic information for Topic 3	198
Figure 4.48	Learning Objectives and Outcomes for Topic 3	199
Figure 4.49	The Learning Materials in Online Platform for Topic 3	200
Figure 4.50	Online Learning Methods and Requirements for Topic 3	202
Figure 4.51	Creating Situations and Asking Questions for Topic 3	203
Figure 4.52	Working in Groups to Explore Problems for Topic 3	205
Figure 4.53	Solving Problems and Showing Results for Topic 3	206
Figure 4.54	The Evaluation and Reflection for Topic 3	207
Figure 4.55	Homework, Assessment and Additional Resources for Topic 3	208
Figure 4.56	The Framework of Topic 4 Online Learning in Platform	200
Figure 4.57	Basic information for Topic 4	210
Figure 4.58	Learning Objectives and Outcomes for Topic 4	210

Figure 4.59	The Learning Materials in Online Platform for Topic 4.....	212
Figure 4.60	Online Learning Methods and Requirements for Topic 4.....	213
Figure 4.61	Creating Situations and Asking Questions for Topic 4.....	214
Figure 4.62	Case 1- Resume (Good).....	204
Figure 4.63	Case 2- Resume (Bad).....	204
Figure 4.64	Working in Groups to Explore Problems for Topic 4.....	216
Figure 4.65	Solving Problems and Showing Results for Topic 4.....	217
Figure 4.66	The Evaluation and Reflection for Topic 4.....	218
Figure 4.67	Homework, Assessment and Additional Resources for Topic 4....	219
Figure 4.68	Assessment for Designing and Developing the Module.....	232
Figure 4.69	The Mean of the Students' Assessment in Pilot Study.....	234
Figure 4.70	The Mean of the Teachers' Assessment in Pilot Study.....	235
Figure 4.71	The Phases of Design and Development of the LWPBL Module..	238
Figure 5.1	The Motivation Q-Q Plot in Pre-test of Experimental Group	248
Figure 5.2	The Motivation Q-Q Plot in Post-test of Experimental Group.....	249
Figure 5.3	The Self-efficacy Q-Q Plot in Pre-test of Experimental Group	251
Figure 5.4	The Self-efficacy Q-Q Plot in Post-test of Experimental Group....	251
Figure 5.5	The Achievement Q-Q Plot in Post-test of Experimental Group ..	253
Figure 5.6	The Achievement Q-Q Plot in Post-test of Experimental Group ...	253
Figure 5.7	The Motivation Q-Q Plot in Post-test of Experimental Group.....	256
Figure 5.8	The Motivation Q-Q Plot in Post-test of Control Group.....	256
Figure 5.9	The Self-efficacy Q-Q Plot in Post-test of Experimental Group ...	258
Figure 5.10	The Self-efficacy Q-Q Plot in Post-test of Control Group.....	259
Figure 5.11	Scatter Plot Graph of LW Achievement Post-test Scores by Pre-test	

Scores for both Experimental and Control Groups..... 261

LIST OF ABBREVIATIONS

ADDIE	Analysis, Design, Development, Implementation, Evaluation
ANCOVA	Analysis of Covariance
CC	College Chinese
CG	Control group
CNKI	China National Knowledge Infrastructure
EG	Experimental group
LW	Literature and Writing
LWPBL	Literature and writing Problem-based learning

LIST OF APPENDICES

- Appendix A Panel Expert Form
- Appendix B Final Questionnaire
- Appendix C Outline of the Interviews between Students and Teachers of the Experimental Group in the Pilot Study
- Appendix D Permission
- Appendix E Human Ethics Approval Letter
- Appendix F Evaluation Form for the LWPBL Module
- Appendix G Assessment Form for the LWPBL Module in Class
- Appendix H Literature and Writing Problem Based Module Usage Guideline
- Appendix I Problem-based Literature and Writing Learning Module
- Appendix J The Online Platform and Learning Materials in the LWPBL Module
- Appendix K The Detailed Learning Texts for the 4 Topics in the LWPBL Module
- Appendix L The Additional Resources for the 4 Topics in the LWPBL Module
- Appendix M Questionnaire on the Learning Needs of College Chinese Course for Higher Vocational and Technical College Students
- Appendix N Outline of interview for teachers in higher vocational colleges College Chinese teaching
- Appendix O Outline of interview for PBL experts to validate the LWPBL module
- Appendix P Pre-test Results of Two Groups

**PEMBANGUNAN DAN KEBERKESANAN MODUL LWPBL TERHADAP
MOTIVASI, EFIKASI KENDIRI DAN, PENCAPAIAN SASTERA DAN
PENULISAN DALAM KALANGAN PELAJAR KOLEJ VOKASIONAL
TINGGI DI CHINA**

ABSTRAK

Sebagai komponen kritikal institusi pengajian tinggi, kursus Kolej Cina di kolej vokasional tinggi masih mengamalkan kaedah pengajaran tradisional, yang menyebabkan pelajar kurang motivasi, efikasi sendiri, dan pencapaian yang rendah dalam sastera dan penulisan (LW). Oleh itu, kajian ini bertujuan untuk membangunkan modul Sastera dan Penulisan Pembelajaran Berasaskan Masalah (LWPBL) dan untuk mengenalpasti keberkesanannya ke arah motivasi, efikasi sendiri, dan pencapaian LW dalam kalangan pelajar vokasional tinggi di China. Teori pembelajaran konstruktivis dan teori pembelajaran berpusat menyediakan rangka kerja teori yang komprehensif untuk kajian ini. Reka bentuk kuasi eksperimen yang menggabungkan pra-ujian dan ujian pasca digunakan dengan pelajar yang dibahagikan kepada dua kumpulan, modul LWPBL (70 pelajar) dan modul LW (70 pelajar). Dapatan kajian ini menunjukkan perbezaan yang signifikan antara kumpulan kawalan dan eksperimen dalam ujian pasca dan antara kumpulan eksperimen dalam ujian pra dan ujian pasca untuk motivasi, efikasi sendiri, dan pencapaian LW. Motivasi pasca-ujian, efikasi sendiri dan pencapaian pelajar kumpulan eksperimen lebih tinggi daripada pelajar kumpulan kawalan dan juga lebih tinggi daripada skor pra-ujian. Ini menunjukkan bahawa PBL

dapat PBL dapat meningkatkan motivasi pembelajaran kursus Kolej Cina pelajar, efikasi sendiri, dan pencapaian LW. Selain itu, kajian ini juga menyediakan modul LWPBL untuk membimbing pelajar dan membimbing pensyarah untuk memudahkan pelajar mempelajari kursus Kolej Cina, terutamanya dalam konteks pembaharuan kurikulum sastera dan penulisan. Kajian ini membantu Institusi Pendidikan Tinggi Vokasional mempertimbangkan untuk mempromosikan PBL untuk menggalakkan motivasi, efikasi sendiri, dan pencapaian LW dalam kursus Kolej Cina dan kursus lain dalam Institusi Pendidikan Tinggi.

**THE DEVELOPMENT AND EFFECTIVENESS OF THE LWPBL MODULE
TOWARDS MOTIVATION, SELF-EFFICACY AND, LITERATURE AND
WRITING ACHIEVEMENT AMONG HIGHER VOCATIONAL COLLEGE
STUDENTS IN CHINA**

ABSTRACT

As a critical component of higher education institutions, college Chinese course in higher vocational colleges still adopt traditional teaching methods, which makes students lack motivation and self-efficacy, and their literature and writing (LW) achievement is poor. Therefore, this study aims to develop a literature and writing problem-based learning (LWPBL) module and to investigate its effectiveness towards motivation, self-efficacy, and LW achievement among higher vocational students in China. Constructivist learning theory and situated learning theory provide a comprehensive theoretical framework for this study. A quasi-experimental design incorporating pre-test and post-test was used with students who were divided into two groups of classes, the LWPBL module (70 students) and the LW module (70 students). The ADDIE model and PBL model were utilized to design and develop the LWPBL module. The result revealed a significant difference between the control and experimental groups in the post-test and between the experimental groups in the pre-test and post-test for motivation, self-efficacy, and LW achievement. The post-test motivation, self-efficacy and LW achievement of the experimental group students

were higher than those of the control group students and also higher than their pre-test scores. The contribution of this study is that it helps other researchers understand that PBL can enhance students' motivation, self-efficacy, and LW achievement when learning college Chinese course. Additionally, the study also provides an LWPBL module to guide the students and instruct the lecturers to facilitate the students' learning of college Chinese course, especially in literature and writing in the context of curriculum reform. This study helps higher vocational educational institutions consider promoting PBL to promote students' motivation, self-efficacy, and LW achievement in college Chinese and other courses in higher education.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Higher education is the highland of knowledge production and the cradle of talent cultivation, which is also a vital force in promoting social change and sustainable development (Ni, 2023). Higher vocational college is an essential part of higher education institutions in China, responsible for cultivating diversified talents, inheriting technical skills, and promoting employment and entrepreneurship vocational education (Zhou, 2019). Hong (2021) and Pan et al. (2022) stated that higher education institutions should not only pay attention to students' professional quality education but also should not ignore comprehensive humanistic quality education. Indeed, some higher vocational colleges often overemphasize professional courses and vocational skills training while neglecting the cultivation of public courses and humanistic literacy. This phenomenon's emergence is related to vocational education's goal, which mainly focuses on improving students' employability technical level and meeting industry needs. In the long run, it will be detrimental to cultivating well-rounded students.

College Chinese course is a public basic course that can improve students' humanistic and comprehensive quality (Wang, 2024). It is also a comprehensive course integrating aesthetic, moral, and intellectual education. Additionally, it plays a fundamental role in college-quality education (Gao,2024). College Chinese course in

higher vocational colleges generally include literature and writing. Literature mainly involves ancient Chinese literature, especially classical poetry and prose; writing mainly explains practical writing, such as plans, summaries, reports, etc. Studying Chinese literature can enrich students' literature knowledge and improve their humanistic literacy (Nie, 2021; Zhang et al., 2024), and through training in practical writing, students can master practical writing skills and enhance their adaptability in the workplace (Dai & Luo, 2024). Indeed, learning literature and practical writing makes the college Chinese course in higher vocational colleges essential in cultivating students' comprehensive qualities.

However, compared with other professional courses, higher vocational students' motivation and self-efficacy in taking college Chinese course are not high (Chen et al., 2019). Students do not even attend classes and have poor learning achievement (Yang, 2018). In particular, ancient literature is complex in language and has a profound historical and cultural background. Students may find it difficult to understand, which reduces their interest in learning literature (Yang, 2021; Zhou, 2020). Furthermore, when faced with challenging literary works, students may feel that they cannot understand the deeper meaning of the works and have self-doubts, feeling that they are not competent for literary learning, which in turn affects students' self-efficacy (Zhu, 2020). Of course, many students believe practical writing is only for passing exams or completing tasks rather than improving their writing skills, leading to weak learning motivation (Zhang, 2022). Since practical writing is more standardized, students may not receive timely and effective feedback during the

writing process. In the long run, they will think that their writing level cannot be improved, which reduces their learning self-efficacy (Li, 2024), then leads to the weak literature and writing (LW) achievement of higher vocational students.

Generally, motivation can directly affect students' learning engagement and persistence. Students with intrinsic interest or external pressure in the learning content are often more willing to devote time and energy (Meng & Zhang, 2023; Reeve, 2018). However, insufficient motivation may lead to students' low interest in learning, affecting their learning outcomes. Additionally, self-efficacy has been shown to correlate with learning achievement significantly. Students with strong self-efficacy are likelier to engage in learning and achieve higher learning (Hayat et al., 2020; Li et al., 2022). If higher vocational students have low self-efficacy, they may think they are not competent for LW learning tasks, affecting their classroom performance and test scores. Low motivation and self-efficacy are usually associated with poor learning achievement for students in higher vocational colleges, which hinders their effective learning of college Chinese course. Especially for challenging content such as literature and practical writing, if students lack motivation and confidence, they may find it difficult to fully master the necessary knowledge and skills fully, hurting personal development and skill improvement and thus affecting professional competitiveness.

Many teaching methods have been adopted to improve students' motivation, self-efficacy and meet their learning needs, such as micro-lecture, flipped classroom, and online teaching, which undoubtedly provide teachers with more multimedia

teaching methods (Hu, 2018; Wang, 2020; Xu, 2017). However, higher vocational students have poor self-directed learning ability, strong learning dependence, and weak self-organization and management. Chen (2019) and Li (2021) pointed out that higher vocational students' learning motivation and efficiency are still very low, relying only on multimedia teaching because these network resources cannot improve learning. Students' motivation may not be enhanced just by using a network platform or seeing videos or pictures in or out of class (Wu, 2019). Furthermore, college Chinese course in higher vocational colleges still adopt traditional teaching methods; such repeated complete explanations inevitably lead to students' boredom (Feng, 2019; Li, 2018; Zhang, 2020).

Many researchers have used the problem-based learning (PBL) method to enhance students' learning interest and enthusiasm and improve their learning achievement (e.g., Ali, 2019; Ghufon & Ermawati, 2018; Malmia et al., 2019; Merritt et al., 2017; Wyness & Dalton, 2018; Zhao & Liu, 2020). This method has also attracted extensive attention in Chinese courses (Chen, 2018; Cong, 2020; Sun, 2020; Wang, 2017). The PBL method places learning in real and complex problem situations. Learners solve problems encountered in the learning process through independent inquiry and cooperative discussion to deeply understand and master the relevant knowledge hidden behind the problems and then promote their ability to form self-directed learning (Ali, 2019; Chang et al., 2018). The PBL method is problem-based and student-centered. Under the inspiration and guidance of the teacher, in-depth research on the topic or specific issues is conducted through group discussions (Chen,

2018; Jailani et al., 2017). Hence, the PBL method creates a relaxed and active learning atmosphere for learners, enabling them to independently and actively build a knowledge system, obtain more information in the process of cooperative learning, stimulate their thinking activities to the greatest extent, and deepen their thinking. Their comprehension and transformation of knowledge develop their curiosity and exploration ability (LaForce et al., 2017; Wang, 2017; Zhang, 2018). According to Zhang (2017), PBL is conducive to mobilizing the enthusiasm of students' active learning, helping to cultivate students' communication and expression abilities, improving students' unity and cooperation, and facilitating students' thinking and problem-solving abilities.

Chinese scholars' PBL research on Chinese courses focuses on the primary and secondary school stages and is mainly based on qualitative research (e.g., Chen, 2018; Sun, 2020; Zhao, 2023; Zhuo, 2024). However, the study of college Chinese course about PBL is not enough. Besides, they have not discussed whether this method can enhance higher vocational college students' motivation, self-efficacy, and LW achievement. Therefore, this research seeks to design and develop an LWPBL module and conduct an empirical study to examine the effectiveness of this module on motivation, self-efficacy, and LW achievement among higher vocational college students in China.

The value of this study lies in that it targets the learning characteristics and needs of higher vocational students and effectively improves their motivation, self-efficacy, and LW achievement in literature and writing through the LWPBL module.

The LWPBL module introduces PBL, which can provide an innovative path for the teaching of college Chinese course and break the traditional lecture-based teaching model. This study demonstrates the effectiveness of the PBL method in higher vocational education and can provide theoretical and practical support for higher education institutions.

The thesis is organized as follows: Chapter 1 introduces the thesis, Chapter 2 is a review of the research literature, Chapter 3 discusses the Methodology, Chapter 4 on the Module Design and Development, Chapter 5 on the Data analysis and Results, and Chapter 6 presents the Discussion and Conclusion of the study.

1.2 Background of the Study

Higher education in China includes higher vocational, undergraduate, and graduate-level education, which aims to train talents for economic and social construction and development. Meanwhile, higher vocational colleges are also a section of China's higher education institutions, which provide applied technical talents for China's development (Wang, 2021). Humanistic quality refers to the comprehensive quality of a person in the humanities. It reflects a deep concern for the meaning and value of human existence and is an indispensable quality in modern society (Bai, 2021). Humanistic quality has many beneficial effects on students, which can effectively promote the formation of many other excellent qualities of students and subtly affect their world outlook, outlook on life, and values (Hong, 2021; Li, 2019; Li, 2020; Xu, 2017; Yang, 2019). Currently, China's higher vocational education has

over-emphasized the cultivation of student's professional skills and practical skills and lacks emphasis on humanistic quality courses, and humanistic education courses have a low status (Bai, 2021; Hong, 2021; Li, 2020; Nie, 2021; Pan et al., 2022; Yan, 2017; Yang, 2019; Zhang et al., 2021). In education, humanistic qualities are developed through subjects like literature, history, and the arts, which aim to broaden a student's worldview and promote personal growth.

The college Chinese course issued by the Ministry of Education in China pointed out that it is necessary to give full play to the humanistic and instrumental nature of the Chinese courses to cultivate high comprehensive quality for China's socialist modernization quality talents (Feng, 2019). College Chinese is a compulsory public course of great significance in higher vocational colleges. First, college Chinese has a distinctive humanistic nature, a kind of education of human nature, spiritual character, and national culture. Ancient literary works especially contain rich humanistic emotions and wisdom, and many of them embody noble moral sentiments and life philosophies. Hence, ancient literary works in college Chinese course can not only enrich students' humanistic knowledge, improve students' humanistic quality, expand the depth of thinking, and deepen their understanding of history and society but also cultivate students' lifelong learning ability (Bai & Lin, 2017; Gao, 2020; Zhu, 2020).

Secondly, the college Chinese course is instrumental because it is a language course that emphasizes the writing of practical writing. Practical writing has a specific format and idiomatic grammar to handle practical affairs, generally including official,

daily, and particular types (Li, 2024; Zhang, 2022). College Chinese course in higher vocational colleges focus on training students in daily-related practical writing, such as plans, summaries, and reports. Doing an excellent job in teaching practical writing can strengthen students' language application ability, help students improve their practical ability, improve work efficiency, and lay a solid foundation for their future careers (Chen, 2019; Li Wen, 2018).

Furthermore, as an essential part of Chinese traditional culture, ancient literature carries rich historical and cultural heritage and spiritual connotations. Learning college Chinese course is conducive to promoting the national spirit, inheriting traditional culture, broadening horizons, and increasing wisdom (Chen et al., 2019; Zhou, 2020; Zhang, 2020). Finally, studying college Chinese course can also cultivate students' aesthetic ability, professional ethics, and professionalism (Yang, 2021; Zhang, 2020).

Although college Chinese course has many advantages for students, some problems still exist with college Chinese course. Due to the teacher-led and passive listening of students, lack of interactivity and attractiveness, students' interest and motivation in the course are reduced (Chen et al., 2019; Wang, 2021). This teaching method makes stimulating students' enthusiasm for learning difficult, especially in higher vocational colleges. When students are in a passive learning state for a long time, they may gradually lose confidence in their learning ability and believe they cannot succeed in such a teaching environment (Xiao, 2019; Yin, 2020). This situation further affects their literary and writing learning results, forming a vicious circle.

According to Wang (2021), students are indifferent to or even abandon college Chinese course, which is more embarrassing in higher vocational colleges. Chen et al. (2019) found that the teaching mode of college Chinese course is single, the teaching ideas are old, and the teaching effect is not good. Obviously, the current teaching methods and course design of college Chinese course have drawbacks, and teaching reform is needed to improve students' motivation and self-efficacy and improve LW achievement.

Ali (2019) stated that the PBL method could enable learners to solve problems encountered in the learning process through independent inquiry and cooperative discussion so that learners can deeply understand and master the relevant knowledge hidden behind the problems, thereby improving the ability of learners to form self-directed learning. The PBL method focuses on understanding and solving problems through student-centred group discussions under the teacher's inspiration and guidance (Chang et al., 2018; Chen, 2018). According to Zhang (2018), the PBL method can create a relaxed and active learning atmosphere for learners to build a knowledge system independently and actively, obtain more information in cooperative learning, stimulate learners' thinking activities, and deepen their understanding of knowledge.

Furthermore, previous research shows that PBL significantly impacts motivation, self-efficacy, and learning achievement (e.g., Ananda et al., 2023; Choi et al., 2022; Shi, 2024). Studies indicate that students engaged in PBL often exhibit higher levels of intrinsic motivation, which is closely related to increased interest and engagement in learning. For instance, LaForce et al. (2017) found that PBL in STEM

fields positively affects student motivation and interest, fostering a deeper engagement in the learning process. Regarding self-efficacy, PBL provides opportunities for students to solve problems actively, reinforcing their confidence in their success. This is supported by Moghadari-Koosha et al. (2020), who demonstrated that self-efficacy is a crucial predictor of academic achievement and indicated that students with high self-efficacy are more likely to perform better academically. Additionally, PBL's positive effect on learning achievement is well-documented. By emphasizing critical thinking and problem-solving, PBL enables students to apply knowledge in practical contexts, which enhances their overall learning achievement (Cai, 2017; Zou, 2020).

Therefore, the LWPBL module is suitable to be adopted in college Chinese course to improve the learning enthusiasm and meet the teaching objectives of students in learning language and cultural knowledge and acquiring language ability. However, the academic research on PBL mainly focuses on college students' medical, English, science, and engineering disciplines (e.g., Kuo et al., 2021; Lee, 2020; Suarez, 2017; Zheng., 2023) while lacking the study of literature and writing in college Chinese course. Furthermore, as a crucial group of college students, higher vocational college students have not received much attention.

Motivation, especially intrinsic motivation, encourages students to engage more deeply with the learning material. It helps to develop perseverance and enthusiasm, even in the face of challenges (Rafiola et al., 2020). Research shows that motivated students are more likely to have a positive attitude toward learning and show better academic achievement (Clark et al., 2014). Motivation not only drives learning

but also sustains effort, which is essential for mastering difficult subjects. Therefore, if students in higher vocational colleges are motivated to learn college Chinese course, they will be enthusiastic about learning college Chinese, willing to take the initiative to explore new knowledge, actively participate in class discussions, and maintain a positive attitude when encountering difficult passages in ancient literature. In addition, they are also willing to devote more time and energy to overcome difficulties and achieve their learning goals.

Undeniably, when students believe they can succeed, they are more likely to confidently face challenges, show perseverance, and adopt better learning strategies (Bandura, 1977). and self-efficacy is a significant predictor of academic performance, which means that students with higher self-efficacy are more likely to achieve better grades (Hayat et al., 2020). Then, students with high self-efficacy believe they can complete LW learning tasks, dare to accept challenging assignments and expect to succeed. A close relationship exists between motivation and self-efficacy, as they interact and jointly affect an individual's learning behavior and learning outcomes (Li & Cao, 2021). In other words, motivation can promote the formation and improvement of self-efficacy, and self-efficacy will, in turn, affect students' motivation and behavior, forming a virtuous cycle. Therefore, higher college Chinese learning motivation and self-efficacy could positively impact the study of literature and practical writing for higher vocational students, helping them to master knowledge and skills better and achieve all-round development.

Learning achievement is a direct reflection of students' learning effect. It

reflects the students' knowledge level and affects their self-confidence and learning motivation. Achievement will enhance self-efficacy and motivation, forming a positive feedback loop (Shen, 2024). Good LW achievements have a profound impact on them, which not only helps improve their competitiveness in scholarship assessment, awards, and honors, but also extends to personal growth, social interaction, and career development.

Hence, this study aims to design and develop an LWPBL module to improve motivation, self-efficacy, and LW achievement among students in higher vocational colleges.

1.3 Statement of the Problem

As one of the basic public courses in higher vocational colleges in China, the college Chinese course aims to improve students' understanding of Chinese literature and their humanistic literacy and cultivate their practical writing skills. However, many students lack motivation when learning college Chinese course (Chen, 2019). Although the importance of college Chinese course has been widely recognized, higher vocational students often lack the internal motivation to actively participate in learning literature and writing (Wang, 2024). According to Zhu (2020), students usually do not speak actively in college Chinese classes and even distract themselves by doing other things in class, such as playing with their mobile phones, sleeping, or reading books unrelated to the course. In addition, some students show a negative learning attitude towards college Chinese course, believing that LW content is tedious and challenging

to master, which leads to resistance to learning (Wang, 2021). Tang (2022) measured the level of motivation in college Chinese course learning among 1150 higher vocational college students. He concluded that although the average score of students was 3.41 (Likert 5-point rating method), it did not reach the level of "interested" (4 points), and pointed out that some students lack a strong motivation to deeply study and explore knowledge and skills related to literature and writing. Meanwhile, this study also investigated the motivation of college Chinese learning among students in higher vocational colleges. The results showed that the motivation score is only 3.34, even lower than Tang's (2022) data. Furthermore, interview results with teachers in the analysis stage agreed that some students seemed indifferent to the teachers' questions and interactions and sometimes often delayed submitting their homework or poor-quality homework.

Many researchers believe that the reason for the low motivation of students in college Chinese course is that the traditional teaching method is still used. For example, Chen (2019) and Wang (2021) stated the teaching method of college Chinese course in higher vocational colleges is old, lacks innovation, and makes it difficult to support students' long-term interest in literature and writing. Zhu (2020) argued that teachers are the core of the class to explain the literature's main points and the basic knowledge of practical writing in an indoctrination manner. Such a teaching method lacks interaction between teachers and students, and the classroom atmosphere is not active enough, so students cannot be interested in literature and writing. Teachers and students lack communication and interaction, pay insufficient attention to students'

discussion, exploration, and cooperative learning, and ignore students' feelings in the teaching process. Over time, students will think negatively that college Chinese course is meaningless and useless (Wang, 2020).

Motivation, as an essential factor affecting academic success, is directly related to students' knowledge acquisition and ability improvement (Rafiola et al., 2020). Especially in higher vocational colleges, cultivating students' humanistic literacy and practical writing skills is not only a supplement to professional skills but also has a far-reaching impact on their future professional communication and cultural understanding. Therefore, improving students' motivation to learn college Chinese course will help them better master literary knowledge and enhance their practical writing skills. It will also help them succeed in their academic and personal development and better adapt to the challenges in the future workplace.

Self-efficacy refers to students' confidence and ability to complete specific tasks (Bandura, 1977). Liu and Guo (2021) pointed out that in higher vocational colleges, students' past learning experiences may lead to a deep sense of frustration in learning and a lack of learning self-efficacy. Many students have low self-efficacy in college Chinese course, especially when faced with complex literary analysis and writing tasks; they often feel overwhelmed (Chen et al., 2020). Na (2019) pointed out that higher vocational students with poor foundations tend to doubt their abilities, lack confidence in facing difficulties, and dare not challenge problems. This will limit their learning scope and prevent them from fully expanding their knowledge and skill levels. Some students lack confidence in their writing ability and literary comprehension, leading

them to avoid literary and writing activities and tasks they feel they are not competent for (Sun et al., 2021). In the long run, this will limit their personal development and prevent them from fully realizing their potential and talents.

This study investigated the self-efficacy of college Chinese course among 984 students from higher vocational colleges. The data showed that the average score was 3.36 (5-point scale), which was far from "agree" (4 points), which means that students lack confidence in their learning ability and performance in college Chinese course. Moreover, 38% of the students had a mean score of less than 3.0, indicating individual differences in self-efficacy among students, and these students are more likely to escape when encountering complex literary and writing tasks. In addition, the respondents agreed that some students in higher vocational colleges generally lack learning confidence, and when teaching literary and writing tasks, students should be given enough support; otherwise, they find it challenging to understand the course content or complete the homework, which increases their learning frustration.

In fact, most of the higher vocational students did not develop good learning habits while learning college Chinese course. The traditional teacher-centered teaching method did not pay enough attention to students and lacked interaction with students (Li, 2019). More importantly, students lack opportunities to express their opinions and ideas, and it is difficult for them to form their learning insights and experiences, so they cannot build up self-confidence and self-efficacy in learning. In the long run, students' self-efficacy will decline, and many feel that college Chinese course are useless and no longer pay attention to learning (Guo, 2020; Zhao, 2016). However, it

cannot be ignored that low self-efficacy affects students' learning strategies, efforts, and academic achievements. Studies have found that students with low self-efficacy are prone to frustration when facing difficulties and giving up learning or reducing the quality of learning (Xu et al., 2021). In college Chinese, if students continue to have low learning efficacy, they often lack confidence when facing more complex literary works and writing tasks, affecting their LW achievement. Conversely, it affects their self-efficacy, forming a vicious circle. Therefore, improving students' self-efficacy in literature and writing learning is essential and necessary.

The evaluation criteria for some honors during college are almost all related to the final score of the courses. Poor grades in college Chinese course may cause students to lose the qualifications for these awards. What is more serious is that college Chinese is a compulsory course, and unsatisfactory grades may prevent students from graduating smoothly. In addition, college Chinese course is a critical way to improve humanistic literacy and writing skills. However, poor grades may mean that students lack literacy in this area. Moreover, good writing skills are an essential requirement for many positions. Poor writing grades affect their daily learning and writing performance at work.

It is worth noting that students in higher vocational colleges still use the teaching method of middle school Chinese in the teaching process, so students still be in the learning mode of exam-oriented education and think that studying college Chinese course is boring. Their interest in learning literature and writing is significantly reduced, resulting in students' weak basic language knowledge and difficulty in deeply

understanding the article's content (Li Wen, 2018). Students lack communication with teachers in class, their enthusiasm for learning cannot be mobilized, and some students have unclear writing ideas and chaotic structures (Du Wen, 2020).

Table 1.2 Final grades for four semesters of college Chinese course

Academic year (Semester)	Number of people	Rank				
		F	D	C	B	A
2022-2023(1)	432	26%	27%	24%	18%	5%
2021-2022(2)	456	27%	30%	20%	15%	8%
2021-2022(1)	548	31%	24%	23%	18%	4%
2020-2021(2)	457	28%	28%	22%	13%	9%

Note. F(Failed): < 60; D:60-69; C:70-79; B:80-89; A:90-100

This study investigated the final grades of college Chinese course for students in one higher vocational college for four semesters. As shown in Table 1.2, more than 20% of students failed each semester, and the failure rate of the four semesters fluctuated slightly but generally above 25%. The failure rate in the first semester of the 2021-2022 academic year was the highest (31%), indicating that many students did not master the knowledge or skills related to literature and writing. In general, students' academic achievement was not ideal, and many students did not reach the passing line or barely passed, with grades of F, D, etc. The proportion of excellent (A-level) students was extremely low, indicating that only a few could master literature and writing well. In addition, during the analysis stage, three respondents reported that about 30% of students failed the final exam every year, and 25% of students scored D (60-69 points).

Literary analysis and practical writing skills are one of the core goals of the college Chinese course and are also essential skills that higher vocational students need

to master. This is related to their learning achievement, future career development, and social adaptability (Zhao, 2022). In globalization and informatization, adapting to the workplace and social requirements for talent will be difficult if students do not have sufficient language and writing skills. Therefore, improving higher vocational students' literary analysis and practical writing skills has important practical significance.

The intensity of motivation affects the degree of students' involvement and effort in the learning process (Meng & Zhang, 2023). The stronger the motivation, the more likely students are to actively learn and think positively, thereby achieving better academic results. Students with high self-efficacy are more likely to set higher learning goals and adopt effective learning strategies to achieve these goals (Hayat et al., 2020). They are also more likely to maintain a positive attitude and exert persistence when facing learning difficulties, achieving better academic results. Motivation and self-efficacy promote and influence each other (Li & Cao, 2021). High self-efficacy can enhance students' self-confidence and motivation, making them more actively engaged in learning, and improving achievement can further enhance their self-efficacy. In addition, better academic achievement can promote learning motivation and self-efficacy (Shen, 2024). Therefore, it is significant to improve the college Chinese learning motivation, self-efficacy, and LW achievement of students in higher vocational colleges.

Although many scholars have explored the impact of PBL on college students' motivation, self-efficacy, and achievement (e.g., Bara & Xhomara, 2020; Liu et al.,

2016; Nurlinda et al., 2024; Saputro et al., 2020; Sugeng & Suryani, 2020), there are limited studies on college Chinese course for students in higher vocational colleges (Xiao, 2019). In particular, there are fewer studies on the effect of PBL on improving college Chinese course motivation, self-efficacy, and LW achievement. Therefore, this study aims to design and develop an LWPBL module to improve higher vocational students' motivation, self-efficacy, and LW achievement while enriching the relevant literature.

1.4 Research Objectives

The research objectives of this research are as follows:

1. To design and develop an LWPBL module towards motivation, self-efficacy, and LW achievement among higher vocational college students in China.
2. To investigate if there is any significant difference in the mean of the motivation on the pre-test and the post-test scores of the experimental group.
3. To investigate if there is any significant difference in the mean of the self-efficacy on the pre-test and the post-test scores of the experimental group.
4. To investigate if there is any significant difference in the mean of the LW achievement on the pre-test and the post-test scores of the experimental group.
5. To investigate if there is any significant difference in the mean of the motivation on the post-test scores of the experimental and control groups.
6. To investigate if there is any significant difference in the mean of the self-efficacy on the post-test scores of the experimental and control groups.

7. To investigate if there is any significant difference in the mean of the LW on the post-test scores of the experimental and control groups.

1.5 Research Questions

This study attempts to answer the following questions:

1. How to design and develop an LWPBL module towards motivation, self-efficacy, and LW achievement among higher vocational college students in China.
2. Is there any significant difference in the mean of the motivation pre-test and the post-test scores of the experimental group?
3. Is there any significant difference in the mean of the self-efficacy pre-test and the post-test scores of the experimental group?
4. Is there any significant difference in the mean of the LW achievement pre-test and the post-test scores of the experimental group?
5. Is there any significant difference in the mean of the motivation post-test scores of the experimental and control groups?
6. Is there any significant difference in the mean of the self-efficacy post-test scores of the experimental and control groups?
7. Is there any significant difference in the mean of the LW achievement post-test scores of the experimental and control groups?

1.6 Research Hypothesis

The current study tests the following hypotheses:

- H1. There is a significant difference in the mean of the motivation pre-test and the

post-test scores of the experimental group.

H2. There is a significant difference in the mean of the self-efficacy pre-test and the post-test scores of the experimental group.

H3. There is a significant difference in the mean of the LW achievement pre-test and the post-test scores of the experimental group.

H4. There is a significant difference in the mean of the motivation post-test scores of the experimental and control groups.

H5. There is a significant difference in the mean of the self-efficacy post-test scores of the experimental and control groups.

H6. There is a significant difference in the mean of the LW achievement post-test scores of the experimental and control groups.

1.7 Significance of the Study

This study investigates the effectiveness of the LWPBL module towards motivation, self-efficacy and LW achievement among higher vocational college students in China. Specifically:

Implementing the LWPBL module improved students' motivation, self-efficacy, and LW achievement, which may help them improve their humanistic literacy and writing skills and actively cope with future learning and career development. Applying the LWPBL module in higher vocational colleges aligns with the requirements of teaching reform; this study provides college Chinese teachers with new teaching methods to help them improve their teaching strategies and enhance the

quality of course teaching.

This study would also provide an LWPBL module to Shandong Vocational College of Science and Technology lecturers, enabling them to teach literature and writing effectively. Furthermore, it may facilitate teachers in other higher education institutions to teach literature and writing with the new knowledge of using the LWPBL module. Besides, this study's findings gave valuable insights into how the LWPBL module could influence motivation, self-efficacy, and LW achievement. This study would help policymakers encourage and support higher education institutions to integrate PBL to improve students' motivation, self-efficacy, and achievement in other courses.

This study confirmed the effectiveness of the PBL in improving the motivation, self-efficacy, and LW achievement of students in higher vocational colleges by developing and implementing the LWPBL module. Through empirical research, this study fills the existing research gap on PBL in college Chinese education in higher vocational colleges and expands the applicability of PBL in different educational contexts.

1.8 Limitations of the Study

The study focuses on a specific group of higher vocational students in the context of college Chinese course (literature and writing). While the results are significant within this context, the findings may not be generalizable to students in other educational settings or subjects.

The sample size of this study is 140 students from Shandong Vocational College of Science and Technology. Researcher tried his best to ensure the sample was representative, but this sample size was still small. It may not fully reflect the overall situation of higher vocational students in China. Students in different regions may face different educational environments and cultural backgrounds, and the generalization and promotion of the research results may be limited to some extent.

The research adopts a quasi-experimental research design, but there may be some factors that are difficult to control in reality, such as other learning activities of students during the experiment and personal life. These factors may influence the experimental results, limiting the accurate evaluation of the effect of the LWPBL module. Besides, this study only relies on quantitative data without qualitative insights like interviews. This limits the depth of understanding behind the statistical trends observed in students' learning motivation, learning self-efficacy, and learning achievement.

This research intervention should have been done in 8 weeks; however, other teaching activities in the experimental location made the intervention have to be done in 4 weeks. A more extended implementation period may provide more solid evidence for the sustained impact of the LWPBL module on motivation, self-efficacy, and LW achievement.

1.9 Operational Definitions

1.9.1 Motivation

Motivation refers to learning motivation that a continuous, stable, and powerful driving force generated in the individual's psychology by various internal and external incentives (Tian & Pan, 2006). Therefore, in this research, motivation, including internal motivation, refers to higher vocational college students' motivation to develop their literature and writing interests and enjoy a pleasant experience, and external motivation relates to students' participation in learning by meeting the expectations of others and gain honors and become a class leader.

1.9.2 Self-efficacy

Self-efficacy in this study refers to learning self-efficacy, a subjective judgment of whether a learner can complete a learning task and an evaluation of their self-confidence in behavior and ability (Liang, 2000). Therefore, in this research, behavior self-efficacy refers to higher vocational college students' belief and confidence in the learning tasks they can accomplish through their actions in literature and writing learning. Ability self-efficacy means students evaluate their learning ability and expectations for overcoming learning difficulties and achieving learning achievements.