



**PROFESSIONAL COMPETENCE DEVELOPMENT OF EFL  
INSTRUCTORS IN PRIVATE COLLEGES IN SICHUAN  
PROVINCE FROM THE PERSPECTIVE OF  
ECOLOGICAL EDUCATION**

**BY  
JUN WANG**

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Assoc.Prof. Ujsara Prasertsin, Ph.D.  
Examination Committee Chairperson

Malivan Praditteera, Ed.D.  
Member

---

Assoc.Prof. Sumalee Chinokul, Ed.D.  
Member

Kanyarat Lormanenoparat, Ed.D.  
Member

---

Asst.Prof. Anchalee Chayanuvat, Ed.D.  
Member and Advisor

Approved by Graduate School

(Prof. Suejit Pechprasarn, Ph.D.)

Dean of Graduate School

January 8, 2025

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Jun Wang  
Researcher

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 Dissertation Advisor : Asst.Prof. Anchalee Chayanuvat, Ed.D.

### **Abstract**

This study examined EFL instructors' professional competence development in Sichuan's private colleges from ecological education perspective. It aimed to explore the impacts of college, social, and educational directors' support on professional competence development, mediated by professional identity. A mixed-methods approach was used, combining quantitative and qualitative analysis, with 436 valid questionnaires and interviews with ten administrators across ten colleges. The results indicated: 1) Private college support, social support, and educational directors' support were found to have significant positive impacts on professional competence development. 2) Professional identity mediated the relationship between these support factors and professional competence. 3) Internal support initiatives such as regular training programs and expert workshops were valued by instructors. 4) Social support from family, peers, and the community reinforced instructors' professional identity. 5) Educational directors' guidance through policy formulation, funding and recognition mechanisms were crucial in enhancing instructors' professional identity. Considering the dynamic educational landscape, future research should explore long-term effects of support interventions via longitudinal studies, and comparative studies between educational institutions and the role of digital tools in professional development are recommended.

(Total 181 pages)

**Keywords:** EFL Instructors, Professional Competence, Ecological Education, Support Systems, Professional Identity, Private Colleges

Student's Signature ..... Dissertation Advisor's Signature .....

## TABLE OF CONTENTS

|                                                                     | <b>Page</b>   |
|---------------------------------------------------------------------|---------------|
| <b>ACKNOWLEDGEMENTS</b>                                             | <b>i</b>      |
| <b>ABSTRACTS</b>                                                    | <b>ii</b>     |
| <b>TABLE OF CONTENTS</b>                                            | <b>iii</b>    |
| <b>LIST OF TABLES</b>                                               | <b>vi</b>     |
| <b>LIST OF FIGURES</b>                                              | <b>vii</b>    |
| <br><b>CHAPTER 1 INTRODUCTION</b>                                   | <br><b>1</b>  |
| 1.1 Background of the Study                                         | 1             |
| 1.2 Significance of the Study                                       | 6             |
| 1.3 Objectives of the Study                                         | 8             |
| 1.4 Research Questions                                              | 9             |
| 1.5 Scope of the Study                                              | 9             |
| 1.6 Conceptual Framework and Research Hypothesis                    | 13            |
| 1.7 Definition of the Key Terms                                     | 15            |
| <br><b>CHAPTER 2 LITERATURE REVIEW</b>                              | <br><b>18</b> |
| 2.1 The Concept of Ecological Education                             | 18            |
| 2.2 The Development of Instructors' Professional Competence         | 22            |
| 2.3 Support for EFL Instructors Professional Competence Development | 27            |
| 2.4 The EFL Instructors' Professional Identity                      | 32            |
| 2.5 Related Researches                                              | 37            |
| 2.6 Literature Review Summary                                       | 42            |
| <br><b>CHAPTER 3 RESEARCH METHODOLOGY</b>                           | <br><b>47</b> |
| 3.1 Research Design                                                 | 47            |
| 3.2 Instrument Design                                               | 49            |

## TABLE OF CONTENTS (CONT.)

|                                                                 | <b>Page</b>    |
|-----------------------------------------------------------------|----------------|
| 3.3 Population and Sampling                                     | 52             |
| 3.4 Measures                                                    | 53             |
| 3.5 Data Collection                                             | 54             |
| 3.6 Data Analysis                                               | 54             |
| 3.7 Pretest of Questionnaire                                    | 59             |
| 3.8 Interviews                                                  | 68             |
| 3.9 Ethical Consideration                                       | 72             |
| <br><b>CHAPTER 4 DATA ANALYSIS</b>                              | <br><b>74</b>  |
| 4.1 The Analysis of Quantitative Data                           | 75             |
| 4.2 The Analysis of Qualitative Data                            | 92             |
| 4.3 Findings to the Research Questions                          | 107            |
| 4.4 Summary                                                     | 113            |
| <br><b>CHAPTER 5 CONCLUSION, DISCUSSION AND RECOMMENDATIONS</b> | <br><b>115</b> |
| 5.1 Conclusion                                                  | 116            |
| 5.2 Discussion                                                  | 120            |
| 5.3 Recommendation                                              | 123            |
| <br><b>REFERENCES</b>                                           | <br><b>127</b> |
| <br><b>APPENDICES</b>                                           | <br><b>153</b> |
| Appendix A Research Instruments                                 | 154            |
| Appendix B IOC Invitation Letters and Results                   | 162            |
| Appendix C Qualitative Data                                     | 171            |
| Appendix D Certificate of Back Translation                      | 175            |

**TABLE OF CONTENTS (CONT.)**

|                                                                                     | <b>Page</b> |
|-------------------------------------------------------------------------------------|-------------|
| <b>Appendix E</b> Certificate of Approval by Ethics Review of<br>Rangsit University | 177         |
| <b>Appendix F</b> List of Acronyms                                                  | 179         |
| <b>BIOGRAPHY</b>                                                                    | <b>181</b>  |



## LIST OF TABLES

| Tables                                                                    | Page |
|---------------------------------------------------------------------------|------|
| 3.1 The General Judgment Criteria for Project Analysis                    | 48   |
| 3.2 Classed Sampling Quantity                                             | 53   |
| 3.3 Metrics and Indicators Index                                          | 59   |
| 3.4 Reliability Test of Professional Competence Development Support Scale | 60   |
| 3.5 Reliability Test of Professional Identity Scale                       | 61   |
| 3.6 Reliability Test of Professional Competence Scale                     | 62   |
| 3.7 Validity Test of Professional Competence Development Support Scale    | 64   |
| 3.8 Validity Test of Professional Value Scale                             | 65   |
| 3.9 Validity Test Result of Professional Competence Scale                 | 66   |
| 3.10 The Steps of Conducting Data Analysis Proposed                       | 70   |
| 4.1 Demographic Variable Characteristics                                  | 77   |
| 4.2 Reliability Test of Variables                                         | 78   |
| 4.3 Model Fit Index                                                       | 79   |
| 4.4 Convergent Validity                                                   | 79   |
| 4.5 Discriminant Validity Result                                          | 81   |
| 4.6 Descriptive Analysis                                                  | 83   |
| 4.7 Correlation Analysis                                                  | 83   |
| 4.8 Model Fit Index                                                       | 86   |
| 4.9 H1, H1a, H1b, H1c Hypothesis Test Results                             | 86   |
| 4.10 Model Fit Index                                                      | 88   |
| 4.11 H2, H2a, H2b, H2c Hypothesis Test Results                            | 89   |
| 4.12 Model Fit Index                                                      | 91   |
| 4.13 H3, H3a, H3b, H3c Hypothesis Test Results                            | 91   |
| 4.14 Basic Information of participants                                    | 93   |
| 4.15 The Code-Category-Concept Analysis                                   | 95   |

## LIST OF FIGURES

| Figures                                         | Page |
|-------------------------------------------------|------|
| 1.1 Conceptual Framework                        | 13   |
| 4.1 Confirmatory Factor Analysis                | 78   |
| 4.2 The SEM Diagram of PCS, PI, PCD             | 85   |
| 4.3 The SEM Diagram of PCS, PI, PCD Test Result | 87   |
| 4.4 The SEM Diagram of SS, PI, PCD              | 88   |
| 4.5 The SEM Diagram of SS, PI, PCD Test Result  | 89   |
| 4.6 The SEM Diagram of EDS, PI, PCD             | 90   |
| 4.7 The SEM Diagram of EDS, PI, PCD             | 92   |



# **CHAPTER 1**

## **INTRODUCTION**

In this chapter, it mainly discusses the background and significance of this study from the perspective of ecological education. The research objectives, research questions, research hypothesis, the scope of the study, limitations of the study and terminology are also included. Through this chapter, there will be a clear view on this study.

### **1.1 Background of the Study**

Enhancing college instructors' professional competence is crucial to raising the calibre of instructors (Valentyna, Olha, Kateryna, Olga, & Mykola, 2020). The competence to teach, do scientific research, and English language application are some of the fundamental competences required by English as a foreign language (EFL) instructors. English language proficiency is one of the many competency categories, and it is an essential requirement for EFL instructors (Jean-Marc & Leung, 2022). The abilities of the instructor are reflected in their competence to teach. They are crucial to improving learning results and promoting students' overall development (Rieckmann, 2018). Scientific research results address the ability of educational researchers to conduct studies and enhance their teaching practices. Instructors that do scientific research can continuously enhance their educational strategies and professional standards (Kutsak, Zaskalieta, Hamorak, Hreniuk, & Parshuk, 2023).

For EFL instructors working in private colleges, professional competence is a complex concept that includes language application competence, teaching English competence, and competence in scientific research (Bagalay, 2023). Enhancing these competences has a favourable influence on private college EFL instructors' overall

development and effectiveness as instructors, as demonstrated by a number of performed research. A study conducted by Xi et al. (2023) emphasized the significance of language proficiency and its function in language modelling and successful communication. El-Sabagh (2021) conducted a study that examined teaching competency and revealed its importance in instructional design and delivery, with an influence on student engagement and learning results. A different study highlighted the importance of scientific research competence and found that instructors who had good research abilities help to improve teaching methods and assets (Toquero, 2021).

The professional competence development of EFL instructors at private colleges in Sichuan Province from an ecological education viewpoint is still lacking in certain areas, according to the research that has already been done (Nam, Yang, & Draeger, 2023). Numerous studies demonstrate the beneficial effects of private college support on the development of EFL instructors' professional competence. According to a thorough study, private colleges that fund and prioritize faculty development initiatives greatly advance the pedagogical competence and abilities of their EFL instructors (Zamani, Alemi, & Tajeddin, 2023). According to a research, institutional support is crucial in developing a culture that prioritizes professional development among EFL instructors and provides an atmosphere that is favourable for ongoing learning (Lai, Wang, & Huang, 2022). Ultimately, a meta-analysis synthesized these results and confirmed that college EFL instructors' continued professional competence development is favorably correlated with targeted and continuous assistance from private colleges (Mohajerpour, Khodabakhshzadeh, & Fatemi, 2023).

The current body of research leaves understudied the combination of ecological education and internal support from private colleges, society, and educational directors; it also examines the professional value, professional sense of belonging, and professional efficacy of private college EFL instructors. The research on the integration of ecological education with internal support systems and the different aspects of professional competence among EFL instructors at private colleges is noticeably lacking, despite the acknowledged significance of this approach.

According to a research, thorough instructor development necessitates an integrated approach to language instruction that combines ecological concepts with internal support systems (Chen, Zhang, & Parr, 2022). Daly, Milton and Langdon underscored the significance of internal support in conjunction with ecological perspectives for effective instructor training in private colleges (Daly, Milton, & Langdon, 2020). One research explored the alignment of ecological principles with curriculum design, laying the foundation for understanding the integration of ecological education with internal support systems (Abulibdeh, Zaidan, & Abulibdeh, 2024).

An extensive framework for comprehending ecological education is provided by the ecological systems theory developed by Russian psychologist Bronfenbrenner. Bronfenbrenner asserts that people are enmeshed in a variety of interrelated environmental systems that have an impact on their development (Elliott & Davis, 2020). The microsystem is a representation of the everyday surroundings that people interact with, including their families, friends, and schools (Reksiana, Rahmah, & Rahayu, 2023). The link between a student's home life and school experiences is one example of how the mesosystem, which extends outward, shows the connections and interactions between many microsystems (Graham, Rios, & Viruru, 2023). Local policies and community resources are examples of external environments that are included in the exosystem and may not be directly experienced by individuals but still have an influence on their development (Guy-Evans, 2020). As a result, this theory offers a clear route for developing the professional competence of EFL instructors from an ecological education standpoint.

Research shows that ecological education theory has a significant role in guiding and developing the professional competence development of college EFL instructors (Herrera, Martinez-Alba, & Trinh, 2022). A recent study conducted by Wang and Chu (2023) investigated the use of ecological education theory in language instruction. The study highlighted the potential of this approach to improve instructors' responsiveness and flexibility to a variety of classroom circumstances, two critical elements of professional competence. According to a research by Jung and Dos Santos, including ecological concepts into teacher preparation courses promotes a

comprehensive view of language learning and enhances the pedagogical competency of EFL teachers (Jung & Dos Santos, 2022). In one study, the alignment of ecological education concepts with language curriculum design was examined, and it was shown to have a favourable impact on EFL instructors' ability to establish effective methods of education (Jodoin, 2020). Additionally, Kim's research examined how ecological education theory might improve instructors' comprehension of sociocultural elements and their capacity to communicate and comprehend across cultural boundaries (Kim, Raza, & Seidman, 2019).

Numerous studies highlight the critical role that social support plays in supporting college EFL instructors' development of professional competence. Carvalho and Santos (2022) highlighted in a study the value of peer cooperation and mentorship in improving the pedagogical abilities and general competence of EFL instructors. According to another study, a work atmosphere that is encouraging and marked by pleasant relationships among coworkers fosters a sense of motivation and belonging, which in turn increases EFL teachers' dedication to ongoing professional growth (Li, 2022). Gudeta's research revealed the critical impact that supportive and constructive criticism from peers and supervisors have in helping EFL teachers engage in reflective practices that result in improved instructional strategies and flexibility (Gudeta, 2022). Furthermore, a study emphasized the value of emotional support in reducing stress and burnout in EFL instructors, thereby enhancing their competence and professional well-being (Shen, 2022). These results were compiled into a thorough meta-analysis, which confirmed that social support systems play a major role in the ongoing development of competence and growth of college EFL instructors (Li & Akram, 2023).

Support from educational directors has repeatedly shown to be important and helpful in helping college EFL instructors build their professional competence. A study conducted in 2020 by Alwadi, Mohamed, and Wilson revealed that educational directors' supervision is crucial in enhancing teacher competency in EFL departments by using a supportive leadership strategy. According to one study (Zhang, Fathi, & Mohammaddokht, 2023), there is a favourable association between the support of

educational directors and the competency and well-being of EFL instructors. A synthesis of evidence from many research was conducted by Dashtestani and Hojatpanah (2022), which reported a significant impact of educational directors' tactics on improving the competency of EFL instructors. Another study emphasized that creating a culture of continuous learning, spearheaded by educational directors, contributes significantly to the ongoing development of EFL instructors in college settings (García-Castro & Segura, 2023). Professional value perceived by college EFL instructors themselves is identified as a significant factor with a positive impact on their professional competence development (Pinar, Bardakci, & Arslan, 2021), as demonstrated by researches. In a study by Vadivel, Namaziandost, and Saeedian (2021) EFL instructors who actively engaged in self-reflection and placed a high value on their professional development exhibited enhanced pedagogical skills and adaptability. One study further supported this idea, finding a positive correlation between instructors' intrinsic motivation and their commitment to ongoing learning, ultimately contributing to increased professional competence (Tang, Wong, Li, & Cheng, 2020). Another research delved into the role of a strong sense of professional identity among EFL instructors, indicating that those who value their roles as educators tend to seek out opportunities for continuous development, leading to heightened competence (Moradkhani & Ebadijalal, 2021). Additionally, a study explored the impact of instructors' perceptions of their own professional value on job satisfaction and performance, revealing a positive link with competence development (Safari, Davaribina, & Khoshnevis, 2020). Tantawy's research focused on the relationship between instructor efficacy and professional competence, highlighting that a belief in one's ability to positively impact student outcomes is closely tied to continuous professional growth (Tantawy, 2020).

In addition, college EFL instructors' professional sense of belonging is found to be a critical component that favourably influences the development of their professional competence. According to one study (Zonoubi, Rasekh, & Tavakoli, 2017), EFL instructors' participation in professional development activities is positively correlated with their strong sense of belonging in the academic community, which eventually leads to increased competence. A thorough investigation into the

effects of a positive work atmosphere on teachers' feelings of community revealed a strong correlation with higher levels of proficiency and assurance in their instructional strategies (Kirby & Thomas, 2022). Sprowls provided additional support for this idea by highlighting the beneficial impact on competence development that a cooperative and inclusive culture may have on an individual's feeling of belonging (Sprowls, 2020). One research explored the relationship between instructor collaboration, belonging, and competence, demonstrating that a collaborative environment enhances the sense of belonging and, in turn, contributes to continuous professional growth (Osterman, 2023).

The growth of college EFL instructors' professional competence is positively impacted by their professional efficacy, which is a noteworthy catalyst (Le et al., 2023). Per Menon and Azam's (2021) research, educators who possess a high degree of self-efficacy are inclined to pursue professional development opportunities and participate in reflective practices, which in turn leads to increased proficiency in their pedagogical competencies. High levels of self-efficacy support persistent efforts in continuous professional development, which in turn enhance competence, according to a study that examined the relationship between teacher efficacy and commitment to learning (Li, Liu, Chen, & Yao, 2022). The study conducted by Badiozaman (2023) highlighted the significance of professional efficacy in moulding the flexibility and resilience of EFL instructors. These attributes are critical for developing competence while dealing with changing educational environments.

## **1.2 Significance of the Study**

This research fulfills the existing research gap concerning the ecological education perspective on professional competence development for EFL instructors working in private colleges in Sichuan Province. Studies particularly examining the professional development of EFL instructors at private colleges in Sichuan Province from an ecological education viewpoint are still comparatively rare, despite the fact that some research has been done in the field of instructor professional development (Mercer, 2023). Furthermore, the majority of recent studies have concentrated on the

professional growth of public college instructors, with very little study on the professional growth of English instructors in Sichuan Province's private colleges (Bao & Yang, 2023). Studying the professional growth of EFL instructors in private colleges is very important because these types of colleges have unique features and difficulties (Ibrahim & Kavlu, 2020).

Through the completion of these research gaps, this study will offer comprehensive theoretical support and useful recommendations for the development of professional competence for EFL instructors who work in private colleges in Sichuan Province (Qiu, Zhang, & Dong, 2024). The research findings will also serve as valuable resources for policy makers and relevant educational institutions in the area of developing the professional competence of EFL instructors, thereby advancing both the improvement of educational quality and the development of professional competence in this area (Fernández-Batanero, Montenegro-Rueda, Fernández-Cerero, & García-Martínez, 2022).

This research is significant for understanding and improving the professional competence development of EFL instructors in private colleges in Sichuan Province. By thoroughly studying the professional competence development of EFL instructors in private colleges, it can provide targeted guidance and support for EFL instructor professional development (Sancar, Atal, & Deryakulu, 2021).

Primarily, the study can help us better grasp how EFL instructors in Sichuan Province's private institutions are currently developing their professional competence. Recent study indicates that a range of factors impact the professional growth of EFL instructors at private colleges (Safari et al., 2020). A thorough grasp of the present state and issues with language competence, teaching competence, and research competence may be obtained by looking at and evaluating the professional competence growth of EFL instructors in private colleges. By offering focused support and resources, this can assist private institutions in creating training programs and professional development plans that are more successful (Bragg, Walsh, & Heyeres, 2021).

Additionally, the results of this study can be used to design strategies for enhancing the professional growth of EFL teachers in Sichuan Province's private colleges. The issues and difficulties that EFL instructors at private colleges encounter with language, teaching, and scientific research may be found out through studies on professional competence development (Islam, W., Ahmad, & Islam, M., 2022). In order to assist their professional competence advancement, relevant improvement measures may be devised based on this, such as offering training opportunities, resource support, and professional exchange platforms (Khasawneh, 2024).

Finally, This research will contribute to the creation of targeted tactics and approaches that support the professional development field's adoption of ecological education theory. It is feasible to comprehend how to integrate the concepts and practices of ecological education to the development of teacher professional competencies by carefully examining real-world examples and experiences (Fang, Hassan, & LePage, 2022). To collaboratively encourage the growth of ecological education, teachers can, for instance, learn how to create courses on ecological education, evaluate students' environmental literacy, and work with instructors from other disciplines through training courses and seminars (Teherani et al., 2023).

### **1.3 Objectives of the Study**

1.3.1 To investigate the specific mechanisms and paths through which college internal support, social support, and educational directors' support impact the professional competence development of EFL instructors in private colleges.

1.3.2 To explore the mediating role of professional identity in the relationship between support factors and EFL instructors' professional competence development in private colleges.

1.3.3 To optimize the support of private colleges, society, and educational directors based on ecological education theory, aiming to enhance EFL instructors' professional identity and competence while considering their future changes and interactions at different ecosystem levels.

## **1.4 Research Questions**

### **1.4.1 Main Research Question**

How do college internal support, social support, and educational directors' support affect EFL instructors' professional competence development and identity in private colleges, and how can these be optimized according to ecological education theory, considering their future changes and interactions at different ecosystem levels?

### **1.4.2 Subsidiary Questions**

1.4.2.1 How do college internal support, social support and educational directors support concretely affect the professional competence development of EFL instructors in private colleges?

1.4.2.2 Does professional identity play a mediating role among private college internal support, social support, educational directors support and EFL instructors' professional competence?

1.4.2.3 How do these supporting factors interact with professional identity and thus affect EFL instructors' professional competence, in different ecosystem levels?

1.4.2.4 How to enhance the support provided by private colleges, society, and educational directors based on ecological education theory, in order to boost the professional identity and proficiency of EFL instructors?

1.4.2.5 Will the influence of these supporting factors and mediating variables on EFL instructors' professional competence change in the future?

## **1.5 Scope of the Study**

### **1.5.1 This Study Explained**

The development of college instructors' professional competence is affected by multiple internal and external factors. From the perspective of ecology of

education, EFL instructors, private colleges, society and relevant authorities form an interactive ecosystem, which is conducive to the professional competence development of private college EFL instructors. Therefore, from the perspective of external influencing factors, the professional competence development of EFL instructors in private colleges will be jointly affected by private colleges, society and relevant competent departments. Specifically, the salary, working environment and organizational care provided by colleges and universities; Social recognition and professional respect for college EFL instructors.

The policy guidance and industry norms of the relevant competent departments will have a direct impact on the professional competence of EFL instructors in private colleges. Although these factors have been mentioned in previous similar studies, systematic and comprehensive discussion is lacking. Therefore, it is of great theoretical significance and practical value to discuss the comprehensive influence of the above three subject levels on the development of EFL instructors' professional competence from the perspective of Ecological Education.

Meanwhile, the development of EFL instructors' professional competence is also affected by instructors' own internal factors, such as instructors' perception of their own professional value, professional belonging and professional efficacy. On the one hand, these factors will directly form the motivation to drive instructors to actively improve their competences and improve themselves; on the other hand, they may also be influenced by the above three main levels and indirectly affect the development of instructors' professional competence.

Therefore, the study takes the support for instructors' professional development at three main levels, including private colleges, society and relevant competent departments, as the independent variable, the professional identity of EFL instructors in private universities as the intermediary variable, and the development of instructors' professional competence as the dependent variable, and explores the mechanism and influence relationship among the three. It provides a scientific basis

for developing effective measures to improve the professional competence of EFL instructors in private colleges.

### **1.5.2 The Location of Study**

Based on the needs of this study, the researcher chose 10 private colleges in Sichuan province, China to continue the study. the names of those colleges are as follow: Chengdu College of Arts and Science, Sichuan Technology and Business University, Southwest Jiaotong University Hope College, Geely University of China, Bazhong Vocational and Technical College, Sichuan Winshare Vocational College, Sichuan International Polus International College, Nanchong Vocational College of Science and Technology, Tianfu New Area of Aviation & Tourism Vocational College, and Tianfu Information Vocational College.

### **1.5.3 Population and Sampling**

#### **1) Population**

There were 553 EFL instructors from 10 private colleges in Sichuan Province were involved in the sample frame of this study. The 10 colleges and were mainly from Chengdu, Yibin, Nanchong, Bazhong and other cities. In order to make the samples had good representation, the study took the calculated sample size 436 as the base, and took the number of EFL instructors in 10 private colleges as the proportion to carry out stratified sampling, so as to finally determine the sample number of each college. The English administrator were involved in the interview.

#### **2) Sampling**

In this study, a classed sampling technique was used, and the sample was drawn from 10 private colleges that the author was familiar with. So, stratified sampling was also used. Systematic sampling was a thorough non-prob competence strategy that was chosen because the people in questions were available (Vehovar, Toepoel, & Steinmetz, 2016). According to the research calculation, it was determined that the sample size of this study was 436 when the confidence level was 95%, the

error range was  $\pm 0.05$ , and the sample population was 553. In addition, each English administrator from the ten colleges would be interviewed.

According to the calculations of Song (2019): When the confidence level was 95%, the error range was  $\pm 0.05$ , and the sampling population was 553, the sample size of this study was 436.

#### **1.5.4 Measures**

In this work, empirical data was gathered by a questionnaire survey. In Tian's (2021) research findings, which was separated into three secondary dimensions: professional values, professional sense of belonging, and professional efficacy, were used to create the scale of instructor professional identity in the questionnaire. Colleges and support endorse He's (2022) research findings. Three additional variables made up the scale: humanistic care, welfare benefits, and organizational environment. The study's findings were put into practice by He (2022). Under the scale, there were two more dimensions: instructor recognition and professional image. The research findings validated by the appropriate authorities Policy direction and industry standards are the two secondary elements that make up Yang (2023), Yin (2022) framework. Professional competence development is adopted Li (2013), He (2022) research results, divided into language application competence, teaching English competence and scientific research competence. All questionnaires used a five-point Likert scale, from "1-5" indicating "very dissatisfied" to "very satisfied," to measure instructors' professional identity, professional development support, and professional competence development.

#### **1.5.5 Data Analysis**

Frequency analysis was primarily employed in the study to examine the sample's demographic factors. The validity and reliability of the data collected by the scale in the questionnaire was examined using reliability and validity analysis. The sample's perceived level on key characteristics such as professional identity,

professional growth support, and professional competence development were assessed using descriptive analysis. The link between the core variables was investigated using correlation analysis. The effectiveness of various demographic features on the key variables varied significantly, which was examined by using difference analysis.

Cronbach's Alpha Coefficient ( $\alpha$ ) was run for the test of questionnaire items, difference analysis, validity, reliability coefficient of correlation etc. Multivariate regression analysis and structural equations modeling were also performed in data analysis.

In the qualitative part, Thematic content analysis and coding system method were adopted to analyze the data.

## 1.6 Conceptual Framework and Research Hypothesis

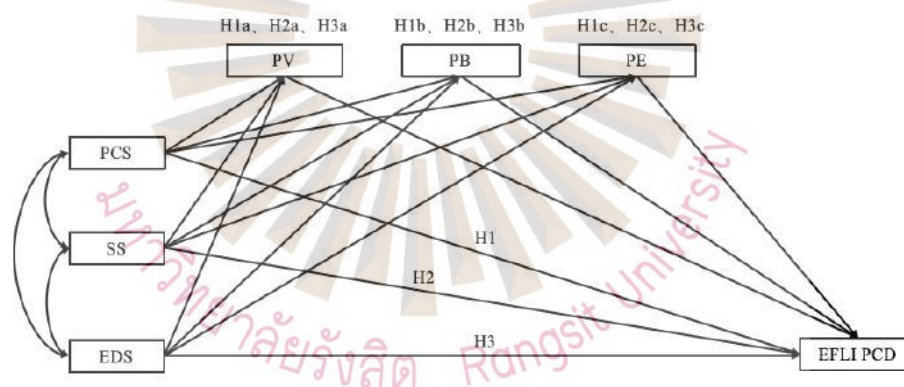


Figure 1.1 Conceptual Framework

### 1) Exogenous

PCS: Private Colleges Support

SS: Social Support

EDS Educational Directors Support

### 2) Mediators

PV: Professional Value

PB: Professional Sense of Belonging

PE: Professional Efficacy

### 3) Endogenous

EFL PCD: EFL Instructors' Professional Competence Development

H1: The internal support of private colleges has a significant positive impact on the professional competence development of EFL instructors.

H2: Social support has a significant positive impact on the professional competence development of EFL instructors in private college.

H3: The support from educational directors has a significant positive impact on the professional competence development of EFL instructors in private colleges.

H1a: The professional values of EFL instructors in private colleges play a mediating role in the influence of college internal support on their professional competence development.

H1b: The professional belonging of EFL instructors in private colleges plays a mediating role in the influence of college internal support on their professional competence development.

H1c: The professional efficacy of EFL instructors in private colleges plays a mediating role in the influence of college internal support on their professional competence development.

H2a: The professional values of EFL instructors in private colleges play a mediating role in the influence of social support on their professional competence development.

H2b: The professional belonging of EFL instructors in private colleges plays a mediating role in the influence of social support on their professional competence development.

H2c: The professional efficacy of EFL instructors in private colleges plays a mediating role in the influence of social support on their professional competence development.

H3a: The professional values of EFL instructors in private colleges play a mediating role in the influence of the educational directors' support on their professional competence development.

H3b: The professional belonging of EFL instructors in private colleges plays a mediating role in the influence of the support from the educational directors on their professional competence development.

H3c: The professional efficacy of EFL instructors in private colleges and universities plays a mediating role in the influence of the support of educational directors on their professional competence development.

## 1.7 Definition of the Key Terms

**Professional Competence Development:** Professional competence development refers to the ongoing process of enhancing one's knowledge, skills, attitudes, and behaviors necessary to perform proficiently within a professional domain, including the acquisition of new competencies and refinement of existing ones through education, training, practice, and professional experiences.

**EFL Instructors:** This refers to people who teach English as a foreign language in colleges and universities. English as a Foreign Language (EFL) means learning and utilizing English as a second language in a non-English speaking nation.

**Professional Competence:** Professional competency, as defined by college EFL instructors includes teaching, scientific research, and English language competence. These competences are critical, they hold the key to improved technology outcomes.

**Language Application Competence:** It involves not just having a thorough command of the English language but also having an awareness of various cultural settings and the ability to use this information while instructing.

**Teaching Competence:** The ability to manage classrooms, apply effective teaching tactics, provide a supportive learning environment, and acquire pedagogical abilities are all components of teaching competence.

**Scientific Research Competence:** Research competency in science refers to the ability to carry out academic investigations, add to the body of knowledge in the discipline, and implement research results in the classroom.

**Professional Efficacy:** The term "professional efficacy," which is synonymous with "instructor self-efficacy," describes how instructors feel about their ability to do their jobs well.

**Professional Sense of Belonging:** When they feel their uniqueness is respected by their college and students, an EFL instructor might feel like they belong in the educational setting.

**Professional Values:** Professional values in the context of teaching English as a foreign language may include a commitment to lifelong learning, ethical observance, and student development.

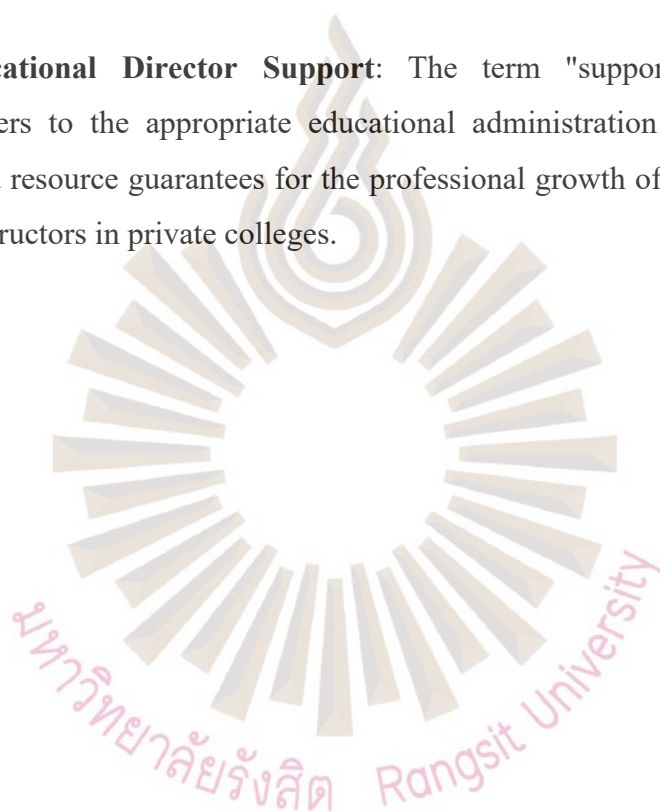
**Ecological Education:** According to the philosophy of ecological education, "individual teachers and the social environment interact and influence each other." In particular, instructors' behaviour and professional growth are greatly impacted by the social environment, which is a crucial component of the educational ecological system. Instructors, in turn, have an impact on the environment.

**Professional Identity:** Under the umbrella term "EFL instructor professional identity," instructors' feelings of acceptance, acknowledgment, and affiliation with their work as teachers are the main topics of discussion. In this case, professional efficacy, professional value, and professional sense of belonging are all components of professional identity.

**Social Support:** The term "social support" describes the encouragement and focus on EFL instructors' professional growth received from other pertinent organizations and people in the community.

**Internal Support:** In private colleges, "internal support" refers to the consideration and assistance that colleagues and school administrators provide for professional growth.

**Educational Director Support:** The term "support from educational directors" refers to the appropriate educational administration departments' policy assistance and resource guarantees for the professional growth of English as a Second Language instructors in private colleges.



## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter conducts a comprehensive assessment of the literature from three primary angles: professional development support, professional identity, professional competence of EFL instructors, and ecological education. There is also a broad assessment of the relevant research conducted by this field's predecessors.

#### **2.1 The Concept of Ecological Education**

The ecological systems theory developed by Russian psychologist Bronfenbrenner provides a thorough foundation for comprehending ecological education. Individuals are enmeshed inside several interconnected environmental systems that impact their development, according to Bronfenbrenner (Honickman, 2023). The microsystem stands for the daily interactions people have with their local surroundings, including their families, friends, and schools (Oyarzún Gómez, Casas Aznar, & Alfaro Inzunza, 2019). The mesosystem, which extends outward, emphasizes the linkages and exchanges that occur between various microsystems, such as the connection between their experiences at home and in the working environment (Crawford, 2020). The exosystem includes outside environments like neighbourhood laws and community resources that people may not interact with directly but that still have an influence on their development (Huang, Gan, Liu, & Zhao, 2024).

An important focus of Bronfenbrenner's ecological systems theory applied to ecological education is the interdependence of people and their surroundings (Elliott & Davis, 2020). Teachers may use this viewpoint to create lessons that not only impart ecological information but also deeply foster environmental care and responsibility (Thor

& Karlsudd, 2020). Ecological education may provide a comprehensive awareness of sustainability and encourage action towards establishing a more ecologically conscious society by recognizing the impact of several environmental systems on EFL teachers (Thor & Karlsudd, 2020). This strategy emphasizes how important it is to include ecological concepts into teaching methods in order to develop environmentally conscious individuals who can handle difficult ecological problems. Moreover, recent studies have shown that incorporating ecological perspectives in education can lead to increased environmental literacy among students, fostering a generation that is more aware and proactive in addressing environmental challenges (Liu & Zhang, 2023).

Ecological education theory emerged as a new concept in education in the 1970s and has been evolving ever since (Zhang & Wang, 2022). Scholars in the fields of education and psychology introduced the concept of ecology into the study of education during this period. Along with creating a novel theoretical framework known as the Ecological Education Theory, they also suggested the term "Ecological Education" (Kumar, 2022). Research has further elucidated how this theory intersects with other disciplines, such as sociology and anthropology, to provide a holistic understanding of the educational ecosystem and its various influences (Rodriguez & Morales, 2021).

According to Weiss, Lopez, Kreider, and Chatman-Nelson (2013), ecological education theory holds that education is a multifaceted and intricate system that includes teachers, students, the school environment, and sociocultural influences. Together, these components have an impact on one another and create the ecological system of education (Hiver, Al-Hoorie, & Evans, 2022). In order to understand the connections and interactions between its many components, Ecological Education Theory seeks to perform in-depth study and research on this complex system (Ardoin & Bowers, 2020). Furthermore, recent advancements in technology have enabled researchers to gather data and analyze the interactions within the educational ecosystem more efficiently, leading to a deeper understanding of the dynamics at play (Martinez & Sanchez, 2023).

Furthermore, the idea of ecological education highlights the strong relationship between the education system and its external environment, in addition to its internal components (Porter & Córdoba, 2009). For example, external variables including sociocultural characteristics, the economy, and legislation can have an impact on the objectives, content, and methods of education, as well as the roles of educators and learners. Thus, the philosophy of ecological education demands that the educational system's internal components and linkages be given equal consideration, as well as its interaction with the outside world (Hadjichambis, & Paraskeva-Hadjichambi, 2020).

Over the last several decades, ecological education theory has been crucial in shaping educational practice and research, offering insightful theoretical direction and useful research techniques to comprehend and enhance education (Hadjichambis, & Paraskeva-Hadjichambi, 2020). According to Young and Malone (2023), Ecological Education Theory is anticipated to expand and develop further as society undergoes additional changes. This will provide a more thorough theoretical foundation for educational research and practice.

A crucial theoretical underpinning for study hypotheses is ecological education (Jensen, 2002). According to this view, "individual instructors and the social environment interact and influence each other." In particular, instructors' behaviour and professional growth are greatly impacted by the social environment, which is a crucial component of the educational ecological system; instructors, in turn, have an impact on the environment (Chuang, 2021). Recent studies have also emphasized the role of emotional intelligence in this interplay, suggesting that instructors with higher emotional intelligence are more adept at navigating the social environment and fostering positive relationships with students and colleagues (Lee & Park, 2024).

Colleges, educational directors, and society are the three primary layers that comprise the social environment from the standpoint of ecological education (Jensen, 2002). Colleges offer the setting and circumstances for instructors' teaching, research, and scholarly interactions as they are the immediate surroundings for their work and

development. The entities of educational administration, educational director departments, create and carry out educational policies that have an immediate bearing on the job and professional growth of instructors (O'Dowd & Dooly, 2022). The sociocultural, economic, and technical facets of the larger social environment provide a broader backdrop and impact for the job and professional growth of teachers (Bell & Gitomer, 1979).

Individual instructors' growth in this multi-level social setting is impacted by both physiological and psychological factors (Schepers & Ruyter, 2008). The primary way that physiological effects show up in instructors' professional growth is in their ability. Instructors' professional growth is facilitated by changes in the social environment, which drive them to continuously update their teaching strategies, enhance their research competencies, and improve their teaching abilities (Ramani, 2019). Recent research has also highlighted the importance of physical health and well-being in this context, suggesting that instructors who prioritize self-care and maintain good health are more likely to thrive in their professional development (Chen & Wang, 2024).

The key areas where psychological impacts show up are in the feeling of identity, values, and professional efficacy of instructors. Instructors' professional efficacy may be improved by social environment approval and support, which increases their self-assurance and motivation to teach and do research (Morris & Usher, 2011). Instructors' professional values and identity can also be influenced by the demands and expectations of their social surroundings, which can motivate them to actively embrace and put into practice the purpose and value of education (Dijk & Duijzer, 2020). Moreover, the development of a strong professional identity has been linked to increased job satisfaction and commitment to the teaching profession, further underscoring the importance of considering the psychological impacts within the ecological education framework (Kim & Lee, 2023).

Consequently, ecological education offers a strong theoretical foundation for comprehending and investigating how instructors evolve in the context of society (Timm & Barth, 2021). It facilitates a more thorough and in-depth discussion of professional psychology and the development of instructors (Pham et al., 2023).

## **2.2 The Development of Instructors' Professional Competence**

### **2.2.1 The Connotation of Instructors' Professional Competence Development**

The concept of "development", fundamentally, covers the process from one stage to a higher one, involving aspects such as change, growth, and improvement (Kunatsa & Xia, 2022). When it comes to "development of instructors' professional competence", this concept mainly refers to the continuous growth and improvement in instructors' professional knowledge, skills, and attitudes, representing the ongoing progression from an initial to an advanced professional stage (Schneider & Plasman, 2011).

The main factors influencing the development of instructors' professional competence include private colleges, education directors, and society (Kigwilu & Githinji, 2015). Private college itself, as the main arena for instructors' work and growth, provide opportunities and environments for the development of instructors' professional competence through various means, such as curriculum design and teaching and research activities (Hanssen, 2022). Education directors exert a significant impact on the development of instructors' professional competence by formulating and implementing relevant policies, such as instructor training, evaluation, and incentive policies (Hénard & Roseveare, 2012). The broader social environment, including social culture and technological development, also profoundly influences the development of instructors' professional competence.

High-level professional competence of instructors has a significant impact on the development of higher education institutions, the progress of education, and societal advancement (Lukiianchuk, 2022). Instructors with high-level professional competence can carry out teaching and research activities more efficiently and professionally, thereby improving the teaching quality and research level of higher education institutions, promoting their development. Simultaneously, they can provide students with better education, cultivate more excellent talents, and make more significant contributions to social development (Papoutsis, 2021). Moreover, their

professional spirit and work attitudes can also have a positive impact on society, promoting moral and cultural progress in society.

Numerous studies in the past have provided evidence to support these views. For instance, the research by Chu, Liu and Fang showed that the development of instructors' professional competence has a significant impact on improving the teaching quality and research level of higher education institutions (Chu, Liu, & Fang, 2021). In addition, Liu Jing's research also revealed the positive influence of instructors' professional competence on social development (Liu, 2022).

Therefore, the development of instructors' professional competence is a diversified, complex process affected by multiple factors and holds significant implications for the development of higher education institutions and society (Becher, 2022).

#### 2.2.1.1 Language Application Competence

English language competence is the cornerstone of professional competence for EFL instructors (Berger, 2022). It refers not only to the comprehensive mastery of the English language but also includes the understanding of cultural contexts and the competence to incorporate this knowledge into teaching (Bai, 2021).

EFL instructors' English language competence is at the core of their professional competence development. Advanced linguistic proficiency allows EFL instructors to provide high-quality instruction and facilitate students' language acquisition effectively (Dixon & Snow, 2012). Moreover, cultural awareness, a facet of language competence, can enhance the richness of their teaching content, aiding the development of students' intercultural competence (Bon, 2022).

#### 2.2.1.2 Teaching English Competence Development

Teaching English competence development involves acquiring pedagogical skills, implementing teaching strategies effectively, managing classrooms, and fostering a conducive learning environment (Kim, Raz, & Seidman, 2019). The

capacity to adapt to students' individual learning needs and styles is also an integral part of this competence (Caena, 2019).

Effective teaching competence is instrumental for EFL instructors to foster a positive and engaging learning environment. It involves not only traditional pedagogical skills but also the competence to utilize technology and innovative teaching strategies, reflecting the changing nature of education (Harris, Mishra, & Koehler, 2009). Additionally, a deep understanding of student psychology and learning styles enhances teaching competence, enabling EFL instructors to provide personalized instruction and support to their students (Al-Seghayer, 2022).

#### 2.2.1.3 Scientific Research Competence

Scientific research competence involves the competence to conduct scholarly inquiry, contribute to the field's knowledge base, and apply research findings to teaching practice (Hamzah, H., Hamzah, M., & Zulkifli, 2022). This aspect of professional competence is crucial for driving educational innovation and improving teaching quality (Sulaiman, 2020).

Scientific research competence contributes to the professional competence development of EFL instructors by informing their practice with evidence-based strategies and approaches (Mohamadi Zenouzagh, 2022). Instructors' involvement in research activities aids in the continuous improvement of their teaching, enriches their understanding of language acquisition processes, and allows them to contribute to the field's knowledge (Parmaxi, 2023).

These three competencies do not exist in isolation; rather, they interact and mutually reinforce each other, forming a comprehensive professional competence framework for EFL instructors (Green & Pappa, 2021).

The development of these competencies is vital in instructor's professional development journey, equipping them to meet the ever-evolving educational demands. A strong professional competence allows instructors to carry out

their duties effectively, positively impacting their job satisfaction and the learning outcomes of their students (Kunter & Hachfeld, 2013). Furthermore, it promotes a culture of continuous learning, encouraging EFL instructors to be lifelong learners, continuously expanding their knowledge and improving their skills (Kanwar, 2019).

### **2.2.2 The Importance of Professional Competence Development and Its Influencing Factors**

The development of professional competence in EFL instructors in private colleges is an integral part of their career advancement and job satisfaction. It encompasses the enhancement of English language competence, teaching competence, and scientific research competence, each contributing uniquely to instructors' effectiveness and the quality of instruction they provide (Samson & Collins, 2012).

English language competence forms the foundation of EFL teaching and directly impacts the quality of instruction (Yuan, Lee, De Costa, Yang, & Liu, 2022). It comprises comprehensive language mastery and an understanding of cultural contexts, which add richness to the teaching content and foster students' intercultural competence (Romijn, 2021).

Teaching competence plays a crucial role in the creation of a productive and engaging learning environment. It extends beyond traditional pedagogical skills to include the effective use of technology and innovative teaching strategies, a reflection of the evolving educational landscape (Eslit, 2023). Furthermore, a keen understanding of student psychology and learning styles enables personalized instruction and enhances teaching effectiveness (Ambele, 2022).

Scientific research competence enriches EFL instructors' understanding of language acquisition processes, informs their teaching with evidence-based strategies, and contributes to the field's knowledge (Yuan et al., 2022). Participation in research activities promotes continuous professional development and the improvement of teaching quality (Mlambo, 2019).

In conclusion, the professional competence development of EFL instructors in private colleges is shaped by multiple interconnected factors. Addressing these elements holistically is key to enhancing their professional competence, ultimately resulting in improved teaching quality and student learning outcomes (González-Pérez & Ramírez-Montoya, 2022).

### **2.2.3 Measurement of Instructors' Professional Competence Development**

Measuring the development of instructors' professional competence is a complex and challenging task (Sancar et al., 2021). In past studies, scholars have developed a series of scales to measure and evaluate instructors' professional competence from different angles and levels.

One research developed a tool called the "instructors Professional Competence Scale," which includes five dimensions: professional knowledge, teaching competence, research competence, organizational competence, and social service competence. This scale has good reliability and validity and has been widely used to evaluate instructors' professional competence (Aldrup, 2020). In one research, a tool named "instructors Professional Development Scale" was developed, which mainly includes four dimensions: teaching theoretical knowledge, teaching practical skills, educational psychological quality, and educational innovation competence. This scale also has excellent reliability and validity and is widely used to assess the status of instructors' professional development. In researches, Li and He developed the "English instructors Professional Competence Scale," the main dimensions of which include English language competence, teaching competence, knowledge and attitude competences, and research competence (Li & He, 2022). The scales have high reliability and validity and are consistent with the actual situation of English instructors in China, combining practical research needs and professional characteristics.

These studies have shown that through reasonable scale design and measurement, we can conduct an objective and detailed assessment of the development of instructors' professional competence, providing essential tools and

references for researchers and educational administrators (Vucaj, 2022). Therefore, the scales of Li and He will be chosen.

Through the literature review of the development of instructors' professional competencies, we can see that the development of instructors' professional competencies involves not only the growth of instructors' own professional knowledge, skills, and attitudes, but it is also influenced by multiple factors such as universities, educational directors, and society. Instructors' professional competencies have a profound impact on the development of universities and social progress (Sancar et al., 2021). Meanwhile, scholars have also developed a series of scales to provide an objective and comprehensive evaluation of instructors' professional competencies. These studies not only provide a rich theoretical basis but also provide important references and tools to further study and understand the development of instructors' professional competencies development (Bastian, Kaiser, Meyer, Schwarz, & König, 2022).

## **2.3 Support for EFL Instructors Professional Competence Development**

### **2.3.1 The Connotation of Support for EFL Instructors Professional Competence Development**

The concept of "development support" mainly refers to the provision of necessary resources, conditions, and environments from external sources to help and promote individual development (Hannafin, Land, & Oliver, 2013). When extended to "support for instructor professional development," this concept mainly refers to various supports for instructors in their professional development process, including but not limited to policy support, financial support, academic support, and psychological support (Roksa, 2019).

The main bodies of support for instructor professional development include private colleges themselves, educational directors, and society. Colleges provide significant academic support for instructors' professional development by offering a series of instructor development programs, such as instructor training, teaching

research activities, academic exchanges (O'Dowd & Dooly, 2022). Education directors provide essential policy support for instructors' professional development by formulating and implementing a series of policies, such as instructor evaluation and incentive policies, instructor cultivation, and development policies (Lin, Yin, & Liu, 2022). Moreover, the broader social environment, such as the public's cognition, support, and respect, can also have a significant impact on instructors' professional development (Almuqrin & Mutambik, 2021).

The importance of providing support for instructors' professional development lies in the fact that these supports can help instructors better cope with the challenges of professional development, enhance their professional competencies, and thus improve the quality of education (Kennedy, 2016). For example, a study by Chen Hua showed that support for instructor professional development significantly affects enhancing instructors' teaching competences, teaching effects, and influence on students. Robianto's research also indicated that society's respect and support for instructors significantly impact improving instructors' job satisfaction, enthusiasm, and teaching quality (Robianto, 2020).

Therefore, support for instructor professional development is a complex system engineering involving multiple bodies and has a significant meaning in enhancing instructors' professional competences and improving education quality (Mohamad, Hasim, & Capraro, 2022).

### **2.3.2 Private College Internal Support, Social Support, and Educational Directors Support**

Internal support in private colleges, social support, and support from educational directors are important factors in the professional competence development process of EFL instructors in private higher education institutions, having a positive impact on the development of instructors' professional competences (Jiang, 2022). The specific roles of these forms of support in professional development will be analyzed in detail below.

### 2.3.2.1 Private Colleges Support

Internal support in private colleges refers to the attention and support for professional development from school leaders and colleagues (Alemayehu, 2021). This support includes providing opportunities for instructor training, encouraging instructors to participate in academic exchanges and seminars, and giving instructors autonomy and support in teaching and research (Dooly & Sadler, 2020). Studies have shown that internal support in private colleges has a positive effect on professional development.

For example, after interviewing and surveying instructors at a private university in the Dubai, researchers found that school leaders attach great importance to professional development (Phogat, 2022). They encourage instructors to participate in academic conferences and seminars and provide financial support (O'Leary, 2020). This internal support motivates instructors to actively participate in professional development and improve their professional competences and teaching levels (Zimmer & Matthews, 2022).

### 2.3.2.2 Social Support

Social support refers to the support and attention for professional development from other relevant institutions and individuals in the social environment (House & Landis, 1988). This support can come from various aspects, including the educational sector, industry associations, peer instructors, students, and parents. Social support plays a vital role in promoting professional development (Permatasari, Ashari, & Ismail, 2021).

For example, a study found that instructors in private high schools in the UK received support from industry associations during their professional development, providing them with opportunities for professional training, seminars, and exchange activities (Borich, 2016). These social supports help instructors expand their professional horizons and promote their development in teaching and research (Zhu & Mena, 2023).

### 2.3.2.3 Educational Directors Support

Support from educational directors refers to policy support and resource guarantees for the professional development of EFL instructors in private higher education institutions from relevant educational administrative departments (Hoang, 2020). The policy orientation and resource allocation of educational authorities have a significant impact on instructors' professional development (Kilag & Zamora, 2023).

For example, the Ministry of Education of China encourages instructors in private universities to participate in various instructor training and academic exchange activities and provides corresponding financial support (Ministry of Education, China, 2017). This policy support helps EFL instructors in private higher education institutions obtain more opportunities for academic growth and improve their professional competences and teaching levels (Wang & Chu, 2023).

### 2.3.3 Measurement of Support for Instructors Professional Development

The measurement of support for instructor professional development is crucial in research, helping us understand and assess the actual contributions of universities, society, and related departments to instructor professional development (Balah, 2023).

From the college level, various support and measurement methods for instructor professional development include: measuring the participation level in instructor development projects, assessing instructors' satisfaction with these projects, evaluating the implementation effect of instructor development projects, and so on. For instance, one study designed and applied a self-developed "instructor Development Project Satisfaction Scale" to measure instructors' satisfaction with university-provided instructor development projects. The research results showed that the scale had good psychometric properties and could effectively predict the status of instructor professional development. This result also indicated a significant positive relationship between instructors' satisfaction with educational development projects

and their professional development status. Research conducted by He (2022) stressed the importance of continuous learning, promotion technology that are highly related to college internal support, therefore, his scale could be adopted.

From the societal level, support and measurement methods for instructor professional development often include: using questionnaires to understand society's recognition of instructors, the level of support, and the level of respect for instructor's work, etc. In a study, it designed and applied a "Societal Respect for instructors Scale" to measure the respect for instructors from the public. The research showed that the higher the society's respect for instructors, the higher the instructors' job satisfaction and the positivity of professional development (Li, 2022). Research conducted by Yang (2023) investigated social support from social training, social recognition and respect, which is more reasonable and holistic, therefore, it is adopted to test social support.

From the perspective of educational administration, the support and measurement methods for instructor professional development usually focus on evaluating the implementation effect of educational policies and measuring instructors' satisfaction with these policies. In a study, it used a self-developed "instructor Policy Satisfaction Scale" to measure instructors' satisfaction with education policies. The research results showed that the higher the instructors' satisfaction with the policy, the better their professional development's positivity and effect (Chen, 2022). These studies collectively contribute to our comprehensive understanding of support for instructor professional development. In Yin's (2022) research, she mainly investigated educational directors' support from policy making and implementation for private college instructors and related training support, this is more accurate and reasonable, thus it is chosen.

In this section, the author has delved into the concept of instructor professional development support and its measurement methods, providing important theoretical foundations and empirical tools for evaluating and enhancing instructor professional development (Sancar et al., 2021). The literature review reveals that

whether it is from universities, society, or relevant authorities, the support for instructor professional development has its unique approaches and measurement tools, and their impact on instructor professional development is significant and far-reaching. This finding emphasizes once again the importance of providing comprehensive support from multiple perspectives and levels in the work of instructor professional development (Bergmark, 2023).

## **2.4 The EFL Instructors' Professional Identity**

### **2.4.1 The Essence of Instructors Professional Identity**

The term "identity" mainly refers to an individual's sense of belonging, recognition, and value identification with certain objects or collectives (Shteynberg & Bentley, 2022). Applied to "instructor professional identity," this concept primarily refers to instructors' sense of belonging, recognition, and value identification with their profession as educators (Lin, 2022).

Various factors influence instructor professional identity, but they can generally be categorized into three main influences: professional belonging, professional values, and professional efficacy (Hansen, 2020). Professional belonging refers to instructors' emotional attachment and sense of belonging to their profession, which often deepens their professional identity (Xu & Dou, 2023). Professional values, on the other hand, refer to instructors' identification with the social and personal values of the teaching profession, further strengthening their professional identity (Weiß & Kärner, 2023). Professional efficacy pertains to instructors' perception of their own competences and roles within the teaching profession; higher occupational efficacy often enhances instructor professional identity (Yoon & Kim, 2022).

It is worth noting that instructor professional identity is not only influenced by these three factors but also has an impact on instructors' professional competence (Howard, 2021). For instance, some studies have found that instructors with higher professional identity demonstrate higher professional competence in their teaching

practices (Wang, 2021). Therefore, enhancing instructor professional identity undoubtedly serves as an important pathway to improve instructors' professional competence and enhance the quality of education (Howard, 2021).

## **2.4.2 Dimensions of EFL Instructors' Professional Identity**

Various factors play a significant role in shaping EFL instructors' professional identity. These factors encompass instructors' professional values, sense of belonging, and professional efficacy (Gu & Day, 2007). This section analyses each of these factors, drawing upon relevant literature from recent years.

### **2.4.2.1 Professional Values**

Professional Values serve as the fundamental guiding principles that instructors adhere to in their professional endeavors. These values form the bedrock of instructors' professional identity, providing a framework for decision-making and guiding the execution of their responsibilities (Akbari, 2015). In the context of EFL teaching, professional values encompass a commitment to student development, adherence to ethical principles, and a dedication to lifelong learning (Liu & Xu, 2018). These values are not merely abstract concepts but are deeply ingrained in the mindset of EFL instructors, shaping their approach to teaching and their interactions with students.

The professional values held by EFL instructors significantly influence the way they perceive themselves and their roles within the teaching profession. These values contribute to the formation and reinforcement of their professional identity (Sang, 2023). For instance, a commitment to student development reflects an instructor's belief in fostering the growth and progress of their students, which in turn shapes their teaching methods and strategies. Similarly, adherence to ethical principles demonstrates a strong moral compass, guiding instructors in maintaining integrity and fairness in their practices. Dedication to lifelong learning emphasizes the importance of continuous growth and improvement, encouraging instructors to stay updated with the latest teaching methodologies and research. These

values, therefore, play a pivotal role in defining the professional identity of EFL instructors and guiding their actions within the teaching profession.

#### 2.4.2.2 Professional Sense of Belonging

The sense of belonging to a professional community plays a crucial role in shaping the professional identity of EFL (English as a Foreign Language) instructors (Cheng, 2021). This sense of belongingness fosters a feeling of connection and shared purpose among educators, which is fundamental for the development of a strong professional identity. Chong, Low, and Goh's research supports this idea, highlighting that a strong sense of belonging positively influences the formation and growth of professional identity among EFL instructors. This underscores the importance of creating supportive and inclusive professional environments where instructors can thrive and develop a robust sense of self within their professional community.

This sense of belonging can be derived from various sources within the professional setting. Being part of a supportive team, where instructors collaborate, share ideas, and provide mutual assistance, contributes significantly to this feeling of belonging (Rodriguez, 2021). Additionally, contributing to meaningful educational projects that align with their values and goals further reinforces their sense of purpose and belonging within the profession. Recognition for their work, whether through awards, positive feedback, or professional advancements, also plays a pivotal role in fostering a strong sense of belonging. These elements combined create a conducive environment for EFL instructors to develop and nurture a positive and fulfilling professional identity.

#### 2.4.2.3 Professional Efficacy

Professional efficacy, also known as instructor self-efficacy, refers to instructors' beliefs in their competence to carry out their roles effectively. According to Bandura (1997), self-efficacy affects individuals' behavior, motivation, and performance. This concept is relevant to EFL instructors, as those with high professional efficacy often have a more robust professional identity (Huang, 2021).

They feel more confident in their teaching competences, which can enhance their job satisfaction and teaching effectiveness (Zhang, 2019).

The aforementioned factors do not operate in isolation but interact with one another within the ecological environment of the educational setting (Henry, 2023). Future research should consider this complex interplay while exploring the development of EFL instructors' professional competence in private colleges of Sichuan Province, China.

#### **2.4.3 The Importance of Instructors' Professional Identity on Professional Development**

In summary, the professional identity of EFL instructors significantly influences their professional development and shapes their professional competence. Professional identity, with its multifaceted constituents, serves as an essential framework through which instructors perceive their roles and responsibilities (Cheng, 2021). This perception is closely intertwined with their English language competence, teaching competence development, and scientific research competence (Pylväs & Nokelainen, 2021).

Professional identity, with the underlying professional values, creates a sense of purpose and drives the commitment towards improving their English language competence (Liu & Xu, 2018). It nurtures a professional culture of integrity, lifelong learning, and dedication to student development, enhancing their teaching competences (Watkins & Milman, 2023).

A strong sense of belonging, another component of professional identity, fosters a conducive environment for professional competence development. Instructors in private colleges who feel a sense of belonging in their institutions are likely to engage more effectively in professional learning activities (Tantawy, 2020).

Moreover, professional efficacy, grounded in professional identity, stimulates confidence in EFL instructors' competences, which can, in turn, enhance their scientific research competence (Ayar, 2021). Instructors with a robust professional identity tend to be more resilient, adaptable, and proactive in advancing their skills (Fathi, 2021).

Overall, a robust professional identity serves as a catalyst for the professional competence development of EFL instructors in private colleges (Fathi & Arefian, 2023). Given its profound implications, it is imperative to explore and address the factors shaping EFL instructors' professional identity within the ecological education perspective (Lu & Zhang, 2023).

#### **2.4.4 Measurement of Instructors Professional Identity**

The measurement of instructor professional identity is often divided and assessed based on several dimensions. The most common dimensions include professional belonging, professional values, and professional efficacy (Xie & Cheng, 2023).

In a research, it developed "Instructor Professional Identity Scale," which encompasses the three dimensions mentioned above, using respective items to evaluate instructors' professional identity. It found that the scale demonstrated good reliability and validity in measuring instructor professional identity. Tian (2021) developed scales to measure the professional identity, professional belonging, and professional efficacy of college instructors, respectively. Their scales were found to be appropriate for private college settings and exhibited high reliability and validity (Dhira, 2021).

These types of scales have received positive feedback in practical applications. For instance, in a research, they employed the "Instructor Professional Identity Scale" and discovered that by enhancing instructors' professional efficacy, they could effectively improve their professional identity, thus further enhancing the

quality of their teaching (Liu, 2022). Comparing all the scales mentioned here, Tian 's scale is more appropriate and can fully investigate related situation of private college EFL instructors.

In this section, it conducted an in-depth analysis of the connotations of instructor professional identity and reviewed the methods of measuring it. The literature review indicates that instructor professional identity is influenced not only by professional belonging, professional values, and professional efficacy but also that it significantly impacts their professional competence (Suarez & McGrath, 2022). These findings underscore the significant role of enhancing instructor professional identity in improving their professional competences and overall education quality.

## **2.5 Related Researches**

### **2.5.1 Related Research on Ecological Education Theory**

Since the introduction of Ecological Education Theory, it has been widely applied in various educational research fields, especially in the exploration and application of instructor competency and instructor professional identity (Qi, Sorokina, & Liu, 2021).

In terms of instructor competence, Li and Liu applied Ecological Education Theory in their study on the professional development of rural instructors. They found that the professional development of rural instructors is significantly influenced by the school environment, policy environment, and community environment (Li & Liu, 2022). Among these, the academic activities in schools, policy support, and cultural atmosphere of the community have a positive impact on the professional development of rural instructors (García, 2019).

Regarding instructor professional identity, Fang's research revealed a close connection between instructor professional identity and various factors such as the school environment, educational policies, and sociocultural aspects (Chu et al., 2021).

They found that an inclusive and supportive school environment, coupled with recognition and respect for the instructor's work, can significantly enhance instructors' professional identity (Karousiou, 2019).

Moreover, in a research, through the lens of the Ecological Education Theory, deeply analyzed the impact of the social environment on instructors' professional identity (Liang, 2023). Their study demonstrated that the societal recognition of instructors' roles, respect for educational work, and support for educational reforms all positively influence instructors' professional identity, thereby enhancing their teaching quality and job satisfaction (Day, Elliot, & Kington, 2005).

In conclusion, Ecological Education has seen certain application and verification in the research of instructor competency and instructor professional identity (Qi et al., 2021). These studies provide important theoretical references and practical guidance for understanding and enhancing instructors' professional competences and professional identity.

### **2.5.2 Researches on Professional Competence Development**

The development of professional competence, encompassing English language competence, teaching competence, and scientific research competence, is of paramount significance to the overall quality of higher education (Salehizadeh, Shabani, & Malmir, 2020). Numerous studies underline the importance of these competencies in ensuring effective teaching, quality communication, and the advancement of knowledge within academic institutions. Tan, Chan and Mohd stress the pivotal role of English language competence for effective communication and instruction in higher education (Tan, Chan & Mohd, 2021). Research by Basilotta-Gómez-Pablos, Matarranz, Casado-Aranda and Otto emphasizes the critical nature of teaching competence, including pedagogical skills and instructional strategies, in influencing the overall quality of higher education (Basilotta-Gómez-Pablos, Matarranz, Casado-Aranda, & Otto, 2022). Additionally, Kilag, Marquita and Laurente discussed the importance of scientific research competence for contributing to the advancement of knowledge within academic

institutions. These competencies collectively contribute to shaping a vibrant and effective learning environment, impacting students' experiences and academic success (Kilag, Marquita, & Laurente, 2023).

Moreover, the literature highlights the positive influence of professional identity components, such as professional value, professional sense of belonging, and professional efficacy, on the development of these crucial competencies among higher education professionals (Chen, Zhong, Luo, & Lu, 2020). Averill and Major illustrate how a strong sense of professional value motivates educators to continuously develop their competencies, contributing to the overall quality of teaching and learning (Averill & Major, 2020). Kirby and Thomas delve into the impact of a sense of belonging, emphasizing its role in creating a positive work environment that fosters collaboration and enhances both teaching and research competence (Kirby & Thomas, 2022). Research by Zhang, Admiraal and Saab, suggests that a high level of professional efficacy is associated with educators' commitment to ongoing professional development, thereby positively influencing their overall competence (Zhang, Admiraal, & Saab, 2021). Furthermore, external support, especially from private colleges, society, and educational directors, is identified as a crucial factor in shaping and enhancing the professional competence of higher education professionals (Akour & Alenezi, 2022). Khasawneh discussed the impact of institutional support, highlighting its role in creating an environment conducive to ongoing competence development (Khasawneh, 2024). These findings collectively underscore the intricate interplay between professional identity, external support, and the multifaceted professional competence that is essential for sustaining and improving the quality of higher education.

### **2.5.3 Researches on the Professional Competence Development Support**

Professional competence development of English as a Foreign Language (EFL) instructors in private colleges is significantly influenced by various forms of support. Internal support mechanisms within private colleges play a pivotal role in fostering the ongoing development of EFL instructors' competence (Hoang, 2020).

Research by Ramírez-Montoya, Andrade-Vargas and Portuguese-Castro highlights the importance of professional development programs initiated by private colleges, providing instructors with opportunities for continuous learning and skill enhancement (Ramírez-Montoya, Andrade-Vargas, & Portuguese-Castro, 2021). Additionally, Burhan, Mirayanti and Rusdin emphasized the impact of mentorship programs within private college settings, which offer tailored guidance and support for EFL instructors, contributing to their professional competence (Burhan, Mirayanti, & Rusdin, 2024). Moreover, the study conducted by Castillo-Cuesta underscores the role of collaborative environments within private colleges, emphasizing the positive impact of teamwork and shared resources on the professional competence development of EFL instructors (Castillo-Cuesta, Ochoa-Cueva, & Cabrera-Solano, 2022).

Beyond internal support, social support from colleagues, peers, and the educational directors also play a crucial role in shaping the professional competence of private college EFL instructors (Chen, 2023). Shadiev, Yu, and Sintawati highlight the significance of peer collaboration and knowledge-sharing among EFL instructors within private colleges, emphasizing the positive impact on competence development (Shadiev, Yu, & Sintawati, 2021). Ulla and Perales explore the role of social networks and communities of practice, illustrating how interactions with fellow educators contribute to the enhancement of teaching and language competence (Ulla & Perales, 2021). Furthermore, the research conducted by Alam and Asmawi (2023), suggest that participation in professional conferences and workshops, facilitated by social support, positively influences the scientific research competence of private college EFL instructors. Educational directors within private colleges serve as key influence in shaping the professional development landscape for EFL instructors. Akdere and Egan emphasize the importance of leadership support and strategic guidance from educational directors in fostering a culture of continuous improvement and competence development (Akdere & Egan, 2020). Additionally, Wang and Chu (2023) highlight the positive correlation between the accessibility of resources provided by educational directors and the overall competence development of EFL instructors in private colleges.

#### **2.5.4 Researches on Professional Identity**

Professional identity of EFL instructors in private colleges, comprising professional value, professional sense of belonging, and professional efficacy, plays a crucial role in shaping and positively influencing their professional competence development. Rusilowati and Wahyudi (2020) highlight the significance of professional value, emphasizing that when instructors recognize the importance and impact of their role, it contributes to a heightened commitment to ongoing competence development. Additionally, Fathi, Zhang, and Arefian (2023) explore the impact of a strong professional sense of belonging, illustrating how a positive work environment and collaborative culture among private college EFL instructors enhance their sense of professional identity and, consequently, competence development. The research conducted by Svendsen underscores the role of professional efficacy in driving competence development, as instructors with a strong belief in their capabilities are more likely to engage in reflective practices and seek continuous professional development opportunities (Svendsen, 2020).

Moreover, professional identity components are interconnected, creating a holistic framework that positively shapes the overall professional competence of private college EFL instructors. Smeplass (2023) highlights the synergistic relationship between professional value and a sense of belonging, emphasizing how these aspects collectively contribute to instructors' engagement in competence development activities. The study by Tsybulsky and Muchnik-Rozanov (2023) explores the intersection of professional efficacy and a sense of belonging, suggesting that when instructors feel valued and supported, their confidence in their professional abilities is strengthened, influencing competence development positively. Furthermore, research by Andrews, Borrego and Boklage investigates the cumulative impact of professional value, a sense of belonging, and efficacy on competence development, revealing a significant positive correlation among these dimensions (Andrews, Borrego, & Boklage, 2021). These findings collectively underline the integral role of professional identity in fostering a positive environment that nurtures continuous professional competence development among private college EFL instructors.

## 2.6 Literature Review Summary

### 2.6.1 The Shortcomings of Past Studies and Utilizing Ecological Education

There are certain gaps and restrictions that need to be addressed, even if recent studies have made great progress in examining the growth of EFL instructors' professional competences at private colleges.

Most notably, previous studies have not fully utilized the ecological theory of education when examining the relationships among professional development support, professional identity, and professional competence development. For instance, research by Ehrenfeld, Mohammad, Hussin and Husin have provided valuable insights into individual factors impacting professional competence development, but have not incorporated an ecological perspective which considers the interconnections and mutual influences between these elements within the broader educational ecosystem (Ehrenfeld, Mohammad, Hussin, & Husin, 2022). Similarly, research by Sterling, Ronen and Kerret have recognized the role of institutional support and individual resilience in professional development, yet the holistic view offered by the ecological education perspective, which might integrate these individual elements into a cohesive system, remains largely unexplored (Ronen & Kerret, 2020; Sterling, 2021). Furthermore, while Luo, Freeman and Stefaniak made some progress in applying an ecological perspective by examining online professional learning communities, their study focused primarily on digital environments and did not fully explore the potential impact of other environmental factors and relationships within the educational ecosystem (Luo, Freeman, & Stefaniak, 2020).

In summary, while existing research has provided valuable insights into professional development support, professional identity, and professional competence development, there is a clear opportunity for future studies to more fully leverage the ecological theory of education (Weinberg, Balgopal, & McMeeking, 2021). This would allow a more comprehensive understanding of how these variables interact within the broader educational ecosystem in the context of EFL teaching in private colleges.

### **2.6.2 Innovative Aspect and Potential Significance of This Study**

This study, focusing on EFL instructors' professional competence development in private colleges in Sichuan Province, China, strives to provide a unique contribution to the existing body of research by examining the variables of professional development support, professional identity, and professional competence development through the lens of the ecological theory of education (Mo & Mo, 2020).

Rather than considering these variables in isolation, the ecological perspective allows us to understand them as parts of an interconnected system that includes the individual instructor, their social contexts, and the broader educational environment (Zidny, 2020). This innovative approach is significant for several reasons. First, it acknowledges the complexity of instructors' professional lives and respects the multiple influences that shape their professional development and competence. For instance, an ecological approach can help us better understand how external supports from the society, support from education directors, professional development support, and internal factors like language proficiency, teaching skills, and scientific research competence interact and influence each other within the broader ecosystem of EFL teaching in private colleges (Zhang, 2023).

In addition, the ecological perspective emphasizes the dynamic nature of instructor development, suggesting that the relationships between these variables can change over time and in different contexts (Korpershoek, 2020). This could provide a more nuanced understanding of the factors that facilitate or hinder the professional competence development of EFL instructors.

Finally, by viewing professional competence development ecologically, the author can identify points of intervention and support that might not be apparent when examining these variables individually (Allen & Vella-Brodrick, 2023). This could guide the development of more effective policies and practices to support EFL instructors' professional growth in private colleges.

Therefore, the potential significance of this study lies in its competence to provide a more comprehensive and nuanced understanding of the factors influencing EFL instructors' professional competence development, and to guide more effective support strategies (Yang, 2021).

Furthermore, adopting the ecological theory in the study of EFL instructors' professional competence development in private colleges of Sichuan Province, China, brings forth the possibility of identifying hitherto overlooked connections or influences within the education ecosystem. This extends beyond the immediate professional environment of the EFL instructor, encompassing broader contextual factors such as societal attitudes, policy changes, and advancements in educational technology (Estaji, 2023).

These factors, often dismissed or seen as peripheral in more traditional models of instructor development, could have profound impacts on the professional identity and competencies of EFL instructors (Yang, 2021). For example, societal appreciation or disparagement of the teaching profession could influence instructors' sense of professional identity and commitment to further develop their competence (Tavakol, 2022).

Meanwhile, rapid changes in educational technology necessitate continuous learning and adaptation, adding another layer to the professional competence development of EFL instructors (Baskwill, 2021). Therefore, this study hopes to broaden the discourse on professional competence development by shedding light on these interconnected influences within the educational ecosystem.

In summary, the application of the ecological theory to the study of professional competence development in EFL instructors in private colleges in Sichuan Province, China, promises a comprehensive and nuanced understanding of the complex, dynamic, and interrelated factors at play (Whyte, 2023). The results of this study could offer valuable insights for policy makers, school administrators, and educators in shaping more effective and context-responsive strategies to support the

professional growth and competence development of EFL instructors in private colleges (Banegas, Corrales, & Poole, 2020).

This innovative approach could potentially unravel new perspectives on how external factors, such as societal attitudes and education policies, can have rippling effects on instructors' professional development and sense of professional identity. It's important to recognize how these larger-scale influences, combined with more immediate ones such as institutional support, can shape EFL instructors' professional paths (Boonmoh, 2022). This ecological approach encourages a shift away from viewing instructors as passive recipients of their circumstances. Instead, it highlights the active role instructors play in shaping their professional identities and competencies within their complex, dynamic environments (Jiang, 2023).

The ecological education perspective also emphasizes the crucial role of interpersonal relationships in instructors' professional competence development. This includes relationships with students, colleagues, administrators, and the broader community (Sancar, 2024). The quality and nature of these relationships can impact instructors' sense of belonging, job satisfaction, and motivation for professional development (Li & Yang, 2023). Therefore, fostering a positive and supportive relational environment within private colleges could be a key strategy for enhancing EFL instructors' professional competence development.

In essence, this research aims to offer a holistic view of EFL instructors' professional competence development by examining the interplay between personal, relational, institutional, and societal factors (Derakhshan, Greenier, & Fathi, 2023). By so doing, the findings could contribute to a more nuanced understanding of the process and provide direction for future research and practice in the field.

This chapter comprehensively reviewed Ecological Education Theory and core variables EFL instructor Professional Competence Development, EFL instructor Professional Development Support, and EFL instructors Professional Identity. It covered the origin, connotations, and related studies of the Educational Ecology

Theory, the connotations and measurements of instructors' professional competence development, the connotations and measurements of instructors' professional development support, as well as the connotations and measurements of instructors' professional identity.

### **2.6.3 Conclusion**

In conclusion, while existing research has provided valuable insights into EFL instructors' professional competence development, there is a clear opportunity to more fully leverage the ecological theory of education. This study, by adopting this framework, aims to fill the gaps in the literature and contribute to a more comprehensive understanding of the intricate relationships among professional development support, professional identity, and professional competence development within the broader educational ecosystem. Ultimately, we hope that our research will inform and guide future efforts to enhance the professional growth and development of EFL instructors in private colleges, ultimately improving the quality of English language teaching and learning.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

This chapter talks about the methodology of this study. There were two parts in this study. The first phase of this study was quantitative which includes: quantitative research design, population and sampling, measures, data collection, and data analysis. The second phase of this study was qualitative which means interviews were conducted among the administrators from different private colleges in Sichuan province. Ethical consideration was involved as well.

#### **3.1 Research Design**

This study adopted an explanatory sequential research design, whereby data collection and analysis would be done first in the quantitative domain and then in the qualitative domain (Creswell & Chase, 2017).

There were two phases in this study, the first phase was quantitative part. In this phase, the researcher developed the questionnaire that was adopted in the study from the perspectives of professional competence development support, professional identity and professional competences of EFL instructors. Then, the population and sample of this study was set. Finally, data collection and data analysis were referred. The second phase was qualitative (interview), 10 administrators from the 10 private colleges were interviewed so to confirm the validity of this study.

##### **Phase 1: Scale Development and Model Testing**

Through literature review, the research systematically sorted out the conceptual connotation of EFL instructors' professional competence development and

ecological education theory and related research. In order to further explore how to effectively improve the professional competence of EFL instructors in private colleges from the perspective of ecological education theory, the research was carried out according to the following ideas.

Initially, the questionnaire was prepared after the approval of the oral defense committee. In order to test the content validity of the questionnaire, the questionnaire was submitted to a 5 members panel composed of experts in the field of university instructor development. This validation process utilized the project Objective Alignment Index (IOC) and asked experts to rate each questionnaire item according to the following criteria:

- +1: Strong alignment with objectives and content.
- 0: indicates uncertainty about consistency with objectives and content.
- 1: indicates a lack of consistency with the objectives and content.

At the same time, in order to test the reliability of the scale measurement tool in the questionnaire, 30 EFL instructors from private colleges in Sichuan were randomly selected as the survey objects for the questionnaire pretest. Through exploratory factor analysis of the obtained measurement data, questions with poor discrimination and sub-standard validity were eliminated to form a questionnaire with good reliability and validity. The general judgment criteria for project analysis were as follows in table 3.1 (Wu, 2010).

Table 3.1 The General Judgment Criteria for Project Analysis

| Items    | Question Items Correlation |                            | Homogeneity Test               |                |                    |
|----------|----------------------------|----------------------------|--------------------------------|----------------|--------------------|
|          | Items correlation          | Modified items correlation | Items deleted $\alpha$ value   | Intercommunity | Factor coincidence |
| Criteria | $\geq 0.4$                 | $\geq 0.4$                 | $\leq$ Scale reliability value | $\geq 0.2$     | $\geq 0.45$        |

Subsequently, the formal questionnaire was sent to the sample group, and the research data was collected according to the necessary sample size set by the institute. For the collected pretest data, the study would use Cronbach's Alpha Coefficient to test for reliability and Confirmatory Factor Analysis (CFA) to test for the model.

Next, in the analysis part of the questionnaire data, frequency analysis was used for statistics based on the demographic variable characteristics of the sample. According to the current situation of professional competence development of EFL instructors in private colleges in Sichuan, descriptive statistics was used to analyze the situation. Aiming at the influence of professional development support from private colleges, society and education directors on the professional competence development of EFL instructors, this paper adopted regression analysis to examine the mechanism of the two. Aiming at the mediating effect of instructors' professional identity between professional development support and professional competence development, the structural equation model was adopted to test the effect.

Finally, according to the results of data analysis, the study would propose corresponding measures to promote the development of EFL instructors' professional competence in private colleges from the perspective of ecological education.

## **3.2 Instrument Design**

### **3.2.1 Questionnaire Development**

For the purpose of this study, the questionnaire of college EFL instructor professional competence development scale with 18 questions was adopted from Li (2013) and He (2022); The instructor Professional Competence Development Support scale with 15 questions was adopted from (He, 2022; Yang, 2023; Yin, 2022); and The instructors' Professional Identity with 13 questions scale was adopted from (Tian, 2021), there were 46 questions in the questionnaire in total.

### 3.2.2 Instructor Professional Competence Development Questionnaire

The instructor Professional Competence Questionnaire mainly evaluates the instructor's language application competence, teaching competence and scientific research competence. Among them, language competence mainly measures the proficiency, accuracy and fit of the subjects in teaching English, this part of questionnaire was adopted from Li (2013) with 6 questions. Teaching competence mainly examined the subjects' mastery of teaching methods and the embodiment of teaching results in teaching activities, this part of questionnaire was adopted from Li (2013) with 6 questions; Scientific research competence mainly examined their research competence and research effectiveness of the subjects in scientific research work, it was adopted from He (2022) with 6 questions.

There were three sub-dimensions in the instructor professional competence development questionnaire:

- 1) Language Application Competence (Items 1-6);
- 2) Teaching English Competence (Items 7-12); and
- 3) Scientific Research Competence (Items 13-18)

### 3.2.3 Instructor Professional Competence Development Support Questionnaire

The concept of "development support" mainly refers to the provision of necessary resources, conditions, and environments from external sources to help and promote individual development (Roksa, 2019). The support mainly from college internal support, social support and educational directors.

According to the research results of He (2022), Yang (2023) and Yin (2022), the questionnaire on EFL instructor professional development support consists of three sub-dimensions: internal support of colleges, social support and support of educational directors, and a total of 15 questions. Among them, the internal support of private colleges mainly examined the strength of support for the growth, which was adopted from He (2022) with 6 questions and professional competence development of EFL

instructors; Social support mainly examined the recognition and support of EFL instructors, this part of questionnaire was adopted from Yang (2023) with 4 questions. The support of educational directors mainly examined the government's policy support and platform support for EFL instructors in private colleges, which was adopted from Yin (2022) with 5 questions.

There were three sub-dimensions in EFL instructor professional competence development support:

- 1) Private College Support (Items 19-24);
- 2) Social Support (Items 25-28); and
- 3) Educational Director Support (Items 29-33)

### **3.2.4 Questionnaire of Instructors' Professional Identity**

The questionnaire of instructor's professional identity consists of three sub-dimensions with 13 questions in the questionnaire: instructor's professional values, professional sense of belonging and professional efficacy (Tian, 2021). Among them, professional values mainly examined the private college EFL instructors' recognition of the value of the profession, this part of questionnaire was adopted from Tian (2021) with 5 questions; The professional sense of belonging mainly examined the emotional attitude of EFL instructors towards the teaching profession and adopted from Tian (2021) with 4 questions. Professional efficacy mainly examined EFL instructors' beliefs about their competence as private college instructors, which was adopted from Tian (2021) with 4 questions.

There were three sub-dimensions of EFL instructors' professional identity:

- 1) Professional Values (Items 34-38);
- 2) Professional Sense of Belonging (Items 39-42); and
- 3) Professional Efficacy (Items 43-46)

### 3.3 Population and Sampling

#### 3.3.1 Population

According to the survey, the number of EFL instructors in 10 private colleges in Sichuan Province was as follows: 165 instructors from Chengdu College of Arts and Science, 122 instructors from Sichuan Technology and Business University, 108 instructors from Southwest Jiaotong University Hope College, 72 instructors from Geely University of China, 21 instructors from Bazhong Vocational and Technical College, 15 instructors from Sichuan Winshare Vocational College, 13 instructors from Sichuan International Polus International College, 13 instructors from Nanchong Vocational College of Science and Technology, 12 instructors from Tianfu New Area of Aviation & Tourism Vocational College, and 12 instructors from Tianfu Information Vocational College. There was a total of 553 EFL instructors in those 10 private colleges, which constituted the sample population of this study. Because of mixed methods, the author also invited 1 representative administrator of each college to take part in the interview, and 10 administrators were interviewed.

#### 3.3.2 Sampling

In order to identify qualified samples for this investigation, three screening questions were employed in conjunction with the systematic sampling procedure. The research model, which comprises nine main constructs-professional value, professional sense of belonging, professional efficacy, language application competence, teaching competence, and scientific research competence-was therefore studied using stratified sampling in order to gather data and analyse the model. Consequently, a qualified sample was asked and given 46 questions pertaining to the relevant major constructs.

Generally speaking, the ideal sample size is five to ten times the item's dimensions; 80% of the population is preferred. The sample size should not exceed 230 ( $46 \times 5$ ) if the study consists of 46 questions, 12 of which are eliminated for technical and

scientific research competency. 460 (46\*10) participants is the maximum sample size. A survey was issued online to 436 persons for this investigation.

In order to make the sample more representative, classed sampling was adopted in the study, and the final sample number of each school was shown in Table 3.2.

Table 3.2 Classed Sampling Quantity

| Sample Colleges                                          | Population | Ratio  | Sample |
|----------------------------------------------------------|------------|--------|--------|
| Chengdu College of Arts and Science                      | 165        | 29.84% | 130    |
| Sichuan Technology and Business University               | 122        | 22.06% | 96     |
| Southwest Jiaotong University Hope College               | 108        | 19.53% | 85     |
| Geely University of China                                | 72         | 13.02% | 57     |
| Bazhong Vocational and Technical College                 | 21         | 3.80%  | 17     |
| Sichuan Winshare Vocational College                      | 15         | 2.71%  | 13     |
| Nanchong Vocational College of Science and Technology    | 13         | 2.35%  | 10     |
| Sichuan International Polus International College        | 13         | 2.35%  | 10     |
| Tianfu New Area of Aviation & Tourism Vocational College | 12         | 2.17%  | 9      |
| Tianfu Information Vocational College                    | 12         | 2.17%  | 9      |
| Total                                                    | 553        | 100%   | 436    |

### 3.4 Measures

According to the research needs, the questionnaire is divided into four parts. Among them:

The first part is the basic information of the subjects, mainly including gender, education background, professional title, years of work and so on.

The second part is the instructor professional competence development questionnaire, a total of 18 questions. Divided into 3 sub-dimensions:

- 1) Language Application Competence (Items 1-6);
- 2) Teaching English Competence (Items 7-12); and
- 3) Scientific Research Competence (Items 13-18)

The third part is the instructor professional development support questionnaire, a total of 15 questions, divided into 3 sub-dimensions:

- 1) Private College Support (Items 19-24):
- 2) Social Support (Items 25-28): and
- 3) Educational Directors Support (Items 29-33)

The fourth part is the instructor's professional identity questionnaire, which consists of 13 questions and is divided into 3 sub-dimensions:

- 1) Professional Values (Items 34-38);
- 2) Professional Sense of Belonging (Items 39-42); and
- 3) Professional Efficacy (Items 43-46)

The second, third and fourth parts of the questionnaire were measured on a five-point Likert scale, with the scale "1-5" indicating "strongly unsatisfied" to "strongly satisfied" respectively.

### **3.5 Data Collection**

The online questionnaire link for this study was distributed via Wechat, QQ, and Wenjuanxing, among other online programmes. There were forty-six questions in the online survey covering topics such as teaching competence, scientific research competence, professional efficacy, professional sense of belonging, and professional value. The five-point Likert scale will be distributed online instead of via the conventional manner, as it was in a prior study. Approximately 436 individuals got an online questionnaire for this study.

### **3.6 Data Analysis**

In the data analysis part, the research adopted frequency analysis, descriptive statistics, regression analysis, structural equation model and other analysis methods.

Among them, descriptive analysis, including frequencies, percentages, mean, and standard deviation, were used to analyze demographic variables of the subjects.

Descriptive statistics adopted mean value, standard deviation, minimum value and maximum value to assist in analyzing the development status of professional competence of English instructors in private colleges and universities in Sichuan Province. According to the research of Best and Kahn (2006), the self-evaluation of instructors in language competence, teaching competence and scientific research competence adopted the following criteria.

The Level of Attitudes were:

- The Mean scores of 4.5-5.00 = Strongly Positive Attitude
- The Mean scores of 3.50-4.49 = Positive Attitude
- The Mean scores of 2.5-3.49 = Moderately Positive Attitude
- The Mean scores of 1.50-2.49 = Negative Attitude
- The Mean scores of 1.00-1.49 = Strongly Negative Attitude

The Level of Agreement

- The Mean scores of 4.5-5.00 = Strongly Agree
- The Mean scores of 3.50-4.49 = Agree
- The Mean scores of 2.5-3.49 = Neutrally Agree
- The Mean scores of 1.50-2.49 = Disagree
- The Mean scores of 1.00-1.49 = Strongly Disagree

Regression analysis was mainly used to test whether the support for instructor professional development had a significant positive impact on the development of instructor professional competence, namely H1, H2 and H3 in the research hypothesis.

The structural equation model were mainly be used to test whether instructors' professional identity played an intermediary role between instructors' professional development support and instructors' professional competence development. That is, test H1a, H1b, H1c, H2a, H2b, H2c, H3a, H3b, H3c in the research hypothesis.

### 3.6.1 Criteria for Data Analysis

It is typical practice in SEM analysis to combine the covariance matrix with the sample covariance matrix. To assess how well the model fits, it is customary to compare the covariance matrix of the sample with the theoretical model. Up to 25 fit indices can be produced using AMOS, although not all of them must be reported. The indices that are most often used to assess the quality of SEM fit are the Root Mean Square Error of Approximation (RMSEA), Standardised Root Mean Square Residual (RMSR), Comparative Fit Index (CFI), Adjusted Goodness of Fit Index (AGFI), Non-normed Fit Index (TLI/NNFI), and Goodness of Fit Index (GFI). For this reason, we will use the same standards to assess the SEM fitness of this study.

#### 3.6.1.1 The Comparative Fit Index (CFI)

The Comparative Fit Metric (CFI), according to Chen (2007), is an incremental indication of fit. An alternative to the CDI is the CFI. It measures how much better the present research performs than the other model made using the apparent covariance matrix. Furthermore, by evaluating the difference between the data set and the structural model and correcting the chi-squared and normalized fit indices for sample size errors, CFI evaluates model fit. A closer value of the CFI standard criteria to 1 indicates a better match. From 0 to 1, this index is Bentler (1990) ranged. The most popular standard for determining a satisfactory match is CFI 0.95 (Hu & Bentler, 1999; West et al., 2012). CFI is considered excellent if it is equal to or greater than .95, strong if it is between 0.9 and 0.95, weak if it is between 0.8 and 0.9, and poor if it is less than 0.8 (Shi et al, 2019).

#### 3.6.1.2 GFI and AGFI

According to Tanaka and Huba (1984), the goodness-of-fit index (GF) is a statistic that shows what percentage of the covariance and variances in the empirical covariance matrix  $S$  are predicted by the covariance matrix of the model. The objective is to ascertain the model's fit relative to "nomodel at all," or when all parameters are set to zero, according to Joereskog and Soerbom (1993). Higher values of the GFI, which ranges from 0 to 1, indicate a good match; yet, a negative GFI is

also possible. Based on commonly accepted understanding, values of 0.90 signify a decent fit to the baseline model, while values of 0.95 imply an outstanding match (Marsh & Grayson, 1995; Schumacker & Lomax, 1996).

In addition, Joereskog and Soerbom (1989) developed the Adjusted Goodnesof-Fit Index (AGFI), which accounts for the bias brought on by modcomplexity. Usually, AGFI values fall between 0 and 1, with higher values denoting better fits. When there are the same number of parameters in the target model as there are in the null model, the AGFI value becomes closer to the GFI value. According to Baumgartner and Homburg (1996), values more than 0.85 suggest an acceptable fit, whereas values above 0.90 often indicate a good match and greater than 0.95 an outstanding fit with the baseline model.

According to simulation studies, GFI and AGFI are not sample size independent (Hu & Bentler, 1995, 1998, 1999). Additionally, when model complexity increases, both indices fall, particularly when there are fewer samples (Anderson & Gerbing, 1984; Joereskog & Soerbom, 2001). Moreover, the previous research recommended the excellent fir of indicator should be less than 0.08 (Joereskog & Soerbom, 2001).

### 3.6.1.3 Root Mean Square Error of Approximation (RMSEA)

An indication of a hypothetical model's quality of fit is the root mean square error of approximation (RMSEA). Browne and Cudeck (1993) state that the RMSEA determines the overall fit and, hence, the approximation error. The normal RMSEA criterion should be closer to 0 in order to guarantee a decent fit. A big index is equal to or less than 0.05, as per a prior research, where the value should be 0.08 or 0.05. Cudeck and Browne (1993) Browne and Cudeck (1993), MacCallum, Browne, and Sugawara (1996). Furthermore, for a perfect fit, the lower bound of the confidence interval should be zero, and for a decent fit, it should be 0.05. Once the sample and model are completely suited, the lower end of the confidence interval ends at zero, resulting in an asymmetric standard error. The RMSEA is expected to be independent of sample size and to favor simple models (Browne & Cudeck, 1993; Kaplan, 2000).

The results of the CFA of this study show that the RMSEA value is 0.06, indicating a satisfactory fit.

#### 3.6.1.4 Standardized Root Mean Square Residual (SRMR)

When comparing the residuals of the sample covariance matrix to the residuals of the predicted covariance model, the Root Mean Square Residual (RMR) and Standardized Root Mean Square Residual (SRMR) variables are expressed as the square root of the difference. The scales of each indication are used to calculate the RMR range. Therefore, interpretation of the RMR becomes challenging if a questionnaire comprises items with varying values (e.g., some questions may range from 1 to 5, while others may range from 1 to 7). (Kline, 2005). Because it solves this issue, the standardized RMR (SRMR) offers an interpretation that is far more insightful.

The SRMR is a numerical measure that spans from zero to one. According to Byrne (1998) and Diamantopoulos and Siguaw (2000), well-fitting models provide values of less than 0.05, while values as high as 0.08 are also deemed acceptable. Even while a zero SRMR number denotes a perfect match, keep in mind that bigger sample sizes and complex parameter modelling result in lower SRMR values. Consequently, the CFA's result indicates that the SRMR is acceptable because the RMR and SRMR values are 0.87, above the standard threshold.

#### 3.6.1.5 Incremental Fit Indices

Alternatively referred to as comparative or proportional fit indices, incremental fit indices are statistics that contrast the chi-squared value with the outcomes of autonomous simulation (Widaman & Thompson, 2003). In the same way that a value of 0 indicates poor model fit and a value of 1 indicates ideal model fit, cumulative fit indices are connected to coefficients of determination. All comparative fit indices will belong to this group in order to accommodate the study's cumulative assessment measures (CFI). For a number of reasons, the Normed Fit Index (NFI) was not employed in this investigation.

### 3.6.1.6 The Normed-Fit Index (NFI)

According to Bendlar and Hood (1980), the Normed Fit Index is the initial index found in the LISREL output. By comparing this statistic's two-value to that of the null model, the model may be examined. An great match is indicated by a number near to 1, which is the NFI's numerical value (Rao, Savsani, & Vakharia, 2011). Reliability of this index on sample size is considered by many researchers to be its primary disadvantage. As per Mulaik et al. (1989) and Bentler (1990), a minimum sample size of 200 should be employed. An improved form of the normalized fit index (NFI) that takes sample size into consideration is the comparative fit index (CFI) (Byrne, 1998). Small sample sizes are desirable (Bentler, 1990, Tabachnick & Fidell, 2007). In keeping with earlier studies, it is advised against using this index as the main indicator because of its volatility and dependence on the minimal sample size (Bentler, 1990; Kline, 2005).

In conclusion, the model's degree of fit will be evaluated using the following metrics and indicators, as is shown in table 3.3.

Table 3.3 Metrics and Indicators Index

| Model fit index | X <sup>2</sup> /DF | RMSEA | SRMR  | GFI  | AGFI | TLI  | CFI  |
|-----------------|--------------------|-------|-------|------|------|------|------|
| Reference value | <3                 | <0.08 | <0.08 | >0.8 | >0.8 | >0.9 | >0.9 |

## 3.7 Pretest of Questionnaire

Although the questionnaire used in the study has been reviewed by IOC and ERB, in order to further optimize the performance of the scale, timely discover and correct potential problems and deficiencies, ensure that more accurate and effective information can be obtained in the formal data collection stage, and thus improve the overall quality of the research, this study randomly invited 30 EFL instructors from private colleges in Sichuan Province, China to conduct questionnaire prediction before conducting formal data analysis. For the data collected from the questionnaire prediction, the study used SPSS26 software to conduct item analysis and exploratory factor analysis on the pretest sample data to eliminate questions with poor

discrimination and substandard validity division, thereby forming a questionnaire with good reliability and validity.

### 3.7.1 Reliability Test

Reliability testing is a method of testing the stability of the questionnaire. It is used to observe the change in the reliability coefficient of the overall scale after the tested question is deleted. If the overall reliability coefficient of the scale increases after the question is deleted, then the question may be different from the homogeneity of other questions. In this case, the question can be considered for deletion. According to the method, this study conducted reliability tests on the three scales of teacher professional competence development support scale, EFL instructors' professional identity scale and EFL Instructors' professional competence scale in turn, and the results are as follows.

#### 3.7.1.1 Reliability Test of the EFL Instructor Professional Development Support Scale

The results of the reliability analysis showed that under the three sub-dimensions of private college support, social support, and educational directors support in the Professional Development Support Scale, the "Corrected Item-Total Correlation (CITC)" of each item was greater than 0.4, and the "Cronbach's Alpha if Item Deleted" was smaller than the overall reliability of the dimension. This met the inspection criteria proposed by scholar Wu Minglong, indicating that the scale had good reliability, shown in table 3.4.

Table 3.4 Reliability Test of Professional Competence Development Support Scale

| Item  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|-------|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| Item1 | 14.40                      | 34.179                         | 0.673                            | 0.905                            |
| Item2 | 14.07                      | 33.444                         | 0.782                            | 0.888                            |
| Item3 | 14.30                      | 34.286                         | 0.784                            | 0.889                            |
| Item4 | 14.33                      | 33.126                         | 0.827                            | 0.882                            |
| Item5 | 14.17                      | 33.040                         | 0.753                            | 0.893                            |

Table 3.4 Reliability Test of Professional Competence Development Support Scale  
(Cont.)

| Item                                  | Scale Mean if<br>Item Deleted | Scale Variance<br>if Item Deleted | Corrected Item-<br>Total Correlation | Cronbach's Alpha<br>if Item Deleted |
|---------------------------------------|-------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|
| Item6                                 | 14.07                         | 34.064                            | 0.686                                | 0.903                               |
| Private College Support               | 0.909                         |                                   |                                      |                                     |
| Item7                                 | 10.13                         | 13.568                            | 0.787                                | 0.864                               |
| Item8                                 | 9.93                          | 12.961                            | 0.823                                | 0.850                               |
| Item9                                 | 10.07                         | 14.547                            | 0.638                                | 0.895                               |
| Item10                                | 9.97                          | 13.068                            | 0.855                                | 0.839                               |
| Social Support                        | 0.898                         |                                   |                                      |                                     |
| Item11                                | 11.50                         | 27.155                            | 0.860                                | 0.909                               |
| Item12                                | 11.73                         | 27.720                            | 0.850                                | 0.911                               |
| Item13                                | 11.60                         | 31.007                            | 0.742                                | 0.931                               |
| Item14                                | 11.73                         | 28.961                            | 0.874                                | 0.907                               |
| Item15                                | 11.57                         | 30.530                            | 0.786                                | 0.923                               |
| Support from<br>Educational Directors | 0.932                         |                                   |                                      |                                     |

### 3.7.1.2 Reliability Test of the EFL Instructors' Professional Identity Scale

The results of the reliability analysis showed that under the three sub-dimensions of professional value, professional sense of belonging, and professional efficacy in the EFL Instructor Professional Identity Scale, the "Corrected Item-Total Correlation (CITC)" of each item was greater than 0.4, and the "Cronbach's Alpha if Item Deleted" was smaller than the overall reliability of the dimension. This met the inspection criteria proposed by scholar Wu Minglong, indicating that the scale had good reliability, as is shown in table 3.5.

Table 3.5 Reliability Test of Professional Identity Scale

| Item   | Scale Mean if<br>Item Deleted | Scale Variance<br>if Item Deleted | Corrected Item-<br>Total Correlation | Cronbach's Alpha<br>if Item Deleted |
|--------|-------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|
| Item16 | 13.73                         | 27.789                            | 0.771                                | 0.909                               |
| Item17 | 13.77                         | 26.806                            | 0.751                                | 0.911                               |
| Item18 | 13.93                         | 25.237                            | 0.870                                | 0.888                               |

Table 3.5 Reliability Test of Professional Identity Scale (Cont.)

| Item                            | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---------------------------------|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| Item19                          | 13.90                      | 22.300                         | 0.847                            | 0.895                            |
| Item20                          | 14.00                      | 25.793                         | 0.770                            | 0.907                            |
| Professional Value              | 0.920                      |                                |                                  |                                  |
| Item21                          | 8.40                       | 13.972                         | 0.708                            | 0.877                            |
| Item22                          | 8.17                       | 13.868                         | 0.824                            | 0.831                            |
| Item23                          | 8.23                       | 14.530                         | 0.771                            | 0.852                            |
| Item24                          | 8.20                       | 14.441                         | 0.728                            | 0.867                            |
| Sense of Professional Belonging | 0.889                      |                                |                                  |                                  |
| Item25                          | 10.00                      | 14.483                         | 0.857                            | 0.805                            |
| Item26                          | 9.63                       | 17.895                         | 0.671                            | 0.878                            |
| Item27                          | 9.90                       | 16.783                         | 0.727                            | 0.858                            |
| Item28                          | 9.67                       | 15.954                         | 0.739                            | 0.854                            |
| Professional Efficacy           | 0.883                      |                                |                                  |                                  |

### 3.7.1.3 Reliability Test of the EFL Instructors' Professional Competence Scale

The results of the reliability analysis showed that under the three sub-dimensions of English language competence, teaching competence, and scientific research competence in the EFL Instructor Professional Competence Scale, the "Corrected Item-Total Correlation (CITC)" of each item was greater than 0.4, and the "Cronbach's Alpha if Item Deleted" was smaller than the overall reliability of the dimension. This met the inspection criteria proposed by scholar Wu Minglong, indicating that the scale had good reliability, as is shown in table 3.6.

Table 3.6 Reliability Test of Professional Competence Scale

| Item   | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|--------|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| Item29 | 15.67                      | 40.920                         | 0.827                            | 0.943                            |
| Item30 | 15.70                      | 42.355                         | 0.874                            | 0.938                            |

Table 3.6 Reliability Test of Professional Competence Scale (Cont.)

| Item                            | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---------------------------------|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| Item31                          | 15.77                      | 40.599                         | 0.891                            | 0.935                            |
| Item32                          | 15.53                      | 40.257                         | 0.828                            | 0.943                            |
| Item33                          | 15.47                      | 44.120                         | 0.745                            | 0.949                            |
| Item34                          | 15.53                      | 39.292                         | 0.923                            | 0.931                            |
| Language Application Competence | 0.950                      |                                |                                  |                                  |
| Item35                          | 16.37                      | 38.447                         | 0.836                            | 0.904                            |
| Item36                          | 16.40                      | 36.317                         | 0.860                            | 0.900                            |
| Item37                          | 16.33                      | 38.644                         | 0.783                            | 0.910                            |
| Item38                          | 16.40                      | 38.731                         | 0.802                            | 0.908                            |
| Item39                          | 16.30                      | 39.459                         | 0.667                            | 0.923                            |
| Item40                          | 16.53                      | 38.947                         | 0.756                            | 0.914                            |
| Teaching English Competence     | 0.924                      |                                |                                  |                                  |
| Item41                          | 15.53                      | 34.120                         | 0.735                            | 0.886                            |
| Item42                          | 15.87                      | 33.016                         | 0.716                            | 0.889                            |
| Item43                          | 15.93                      | 33.237                         | 0.751                            | 0.883                            |
| Item44                          | 15.47                      | 36.395                         | 0.651                            | 0.898                            |
| Item45                          | 15.37                      | 33.482                         | 0.734                            | 0.886                            |
| Item46                          | 15.83                      | 32.282                         | 0.825                            | 0.872                            |
| Scientific Research Competence  | 0.903                      |                                |                                  |                                  |

In summary, the three scales used in this study have shown good stability in the pilot test and can be used for the next step of formal research.

### 3.7.2 Validity Analysis

The purpose of validity testing is to determine how well the researcher's scale can capture the idea or features of the theory. The exploratory factor analysis (EFA)

method is typically used to verify the validity of the questionnaire pretest. In order to determine whether there are common factors among the variables, the typical procedures for exploratory factor analysis involve first performing KMO and Bartlett's spherical tests on the scale. Once the common factors between the variables have been identified, the principal component analysis method is applied. Rotating and extracting the principle components is typically done using the maximum variance method, which makes it easier for the researcher to comprehend the data.

### 3.7.2.1 Validity Test of EFL Instructor Professional Competence Development Support Scale

The EFL Instructor Professional Development Support Scale's validity test results show that the scale's KMO is 0.607 and its Bartlett spherical test result is  $p < 0.001$ , suggesting that the scale's variables have a large number of common components that make it appropriate for factor analysis. Three principal component components were identified from a set of fifteen questions after the retrieved common factors were rotated using the maximum variance method. Every question had a factor loading more than 0.7, a distinct dimension division, and consistency with the study theory. At 76.456%, the cumulative variance explanation rate was attained. Consequently, there was no need to modify the scale's questions because the Teacher Professional Development Support Scale passed the pretest validity test, as is shown in table 3.7.

Table 3.7 Validity Test of Professional Competence Development Support Scale

| Item  | Component |   |       |
|-------|-----------|---|-------|
|       | 1         | 2 | 3     |
| Item1 | 0.773     |   |       |
| Item2 | 0.831     |   |       |
| Item3 | 0.859     |   |       |
| Item4 | 0.885     |   |       |
| Item5 | 0.856     |   |       |
| Item6 | 0.739     |   |       |
| Item7 |           |   | 0.889 |
| Item8 |           |   | 0.896 |

Table 3.7 Validity Test of Professional Competence Development Support Scale (Cont.)

| Item                                                           | Component |        |        |
|----------------------------------------------------------------|-----------|--------|--------|
|                                                                | 1         | 2      | 3      |
| Item9                                                          |           |        | 0.761  |
| Item10                                                         |           |        | 0.926  |
| Item11                                                         |           | 0.895  |        |
| Item12                                                         |           | 0.894  |        |
| Item13                                                         |           | 0.845  |        |
| Item14                                                         |           | 0.935  |        |
| Item15                                                         |           | 0.824  |        |
| Rotation Sums of Squared Loadings                              | 28.449    | 55.367 | 76.456 |
| KMO =0.607; Bartlett's Test : $\chi^2=380$ , df=105, $p<0.001$ |           |        |        |

### 3.7.2.2 Validity Test of EFL Instructors' Professional Value Scale

According to the EFL Instructors' Professional Identity scale's validity test findings, the scale's KMO is 0.642 and its Bartlett sphericity test result is  $p < 0.001$ , which suggests that there are a lot of common factors among the variables under the scale and therefore factor analysis is appropriate. Thirteen questions were recovered from three principal component factors, and each question's factor loading was more than 0.8, it was discovered after rotating the extracted common factors using the maximum variance approach. According to the research theory, the dimension division was evident, and the cumulative variance explanation rate was 76.246%. Consequently, there was no need to modify the scale questions because the professional value scale passed the pretest validity test, as is shown in table 3.8.

Table 3.8 Validity Test of Professional Value Scale

| Item   | Component |       |   |
|--------|-----------|-------|---|
|        | 1         | 2     | 3 |
| Item16 | 0.857     |       |   |
| Item17 | 0.826     |       |   |
| Item18 | 0.889     |       |   |
| Item19 | 0.899     |       |   |
| Item20 | 0.842     |       |   |
| Item21 |           | 0.815 |   |

Table 3.8 Validity Test of Professional Value Scale (Cont.)

| Item                                                              | Component |        |        |
|-------------------------------------------------------------------|-----------|--------|--------|
|                                                                   | 1         | 2      | 3      |
| Item22                                                            |           | 0.889  |        |
| Item23                                                            |           | 0.877  |        |
| Item24                                                            |           | 0.823  |        |
| Item25                                                            |           |        | 0.893  |
| Item26                                                            |           |        | 0.807  |
| Item27                                                            |           |        | 0.815  |
| Item28                                                            |           |        | 0.837  |
| Rotation Sums of Squared Loadings                                 | 29.613    | 53.099 | 76.246 |
| KMO =0.642; Bartlett's Test : $\chi^2=315.616$ , df=78, $p<0.001$ |           |        |        |

### 3.7.2.3 Validity Test of EFL Instructors' Professional Competence Scale

The EFL Instructor professional competence scale's KMO is 0.645 and its Bartlett sphericity test result is  $p<0.001$ , which suggests that there are a lot of common factors among the variables under the scale and makes them acceptable for factor analysis. These results come from the validity test results of the scale. It was discovered that three principal component factors were retrieved from the set of 18 questions, and that each question's factor loading was more than 0.7, after rotating the extracted common factors using the maximum variance approach. According to the research hypothesis, the dimension division is evident, and the cumulative variance explanation rate is 75.232%. Consequently, there is no need to modify the scale questions because the professional competence scale passed the pretest validity test (shown in table 3.9).

Table 3.9 Validity Test Result of Professional Competence Scale

| Item   | Component |   |   |
|--------|-----------|---|---|
|        | 1         | 2 | 3 |
| Item29 | 0.886     |   |   |
| Item30 | 0.914     |   |   |
| Item31 | 0.924     |   |   |
| Item32 | 0.873     |   |   |

Table 3.9 Validity Test Result of Professional Competence Scale (Cont.)

| Item                                                              | Component |        |        |
|-------------------------------------------------------------------|-----------|--------|--------|
|                                                                   | 1         | 2      | 3      |
| Item33                                                            | 0.814     |        |        |
| Item34                                                            | 0.945     |        |        |
| Item35                                                            |           | 0.857  |        |
| Item36                                                            |           | 0.893  |        |
| Item37                                                            |           | 0.830  |        |
| Item38                                                            |           | 0.848  |        |
| Item39                                                            |           | 0.745  |        |
| Item40                                                            |           | 0.824  |        |
| Item41                                                            |           |        | 0.782  |
| Item42                                                            |           |        | 0.772  |
| Item43                                                            |           |        | 0.857  |
| Item44                                                            |           |        | 0.702  |
| Item45                                                            |           |        | 0.810  |
| Item46                                                            |           |        | 0.874  |
| Rotation Sums of Squared Loadings                                 | 28.035    | 52.581 | 75.232 |
| KMO =0.645; Bartlett's Test: $\chi^2=492.278$ , df=153, $p<0.001$ |           |        |        |

In conclusion, after exploratory factor analysis, the three scales used in this study, namely the EFL Instructor Professional Competence Development Support Scale, the EFL Instructor Professional Value Scale and the EFL Instructor Professional Competence Scale, showed good structural validity and internal consistency, and all indicators met the qualified standards, indicating that the questionnaire can effectively measure the variables under study and is suitable for subsequent formal research and analysis.

## Phase 2: Interviews to Support the Model

Explanatory Sequential Design (ESD), which was mostly quantitative and augmented by qualitative, was used in this study. By using public data surveys, it first made broad conclusions, which were then confirmed and explained by means of questionnaires and interviews (Toyon, 2021).

This study adopted the questionnaire results to write the questions for the interview with 10 administrators from the 10 colleges, adhering to the research tradition of Sequential Explanatory Design (Bailey, Hutter, & Hennink, 2020). In addition to adding to and clarifying the study findings from the quantitative research portion, the interview would also help to better grasp the research topic.

Do acquire consent before conducting interviews so that the privacy of the people being interviewed is protected. To ensure that the content of the interviews was kept confidential, they would be conducted in a private setting. After deciding on the research questions and objectives, the interviewees who were administrators from these 10 colleges would be chosen, and they would create an interview outline beforehand that would serve as the fundamental structure for the conversation. According to Raucker, Rawl, Vode, and Carter-Harris (2020), the theoretical model, the research objectives, and the problems that came with quantitative data analysis would all be taken into consideration while creating the survey layout. The conversation memorandum and interview diaries could support the subsequent phase of data collecting and provide strong research validity (Haynes-Brown, 2023).

### **3.8 Interviews**

In terms of the particular analysis technique, reading the interview protocol was the first stage in data analysis, and the researcher would go over the prepared interview protocol multiple times.

The following components were included in the research interview outline design:

#### **1) Basic situation:**

The introductory section comprises of the researcher's self-introduction, an explanation of the research objectives and purpose of the data, and an outline of the predicted outcomes of the study.

2) Opening question:

Easy questions that build rapport with the interviewee and organically lead the conversation to the main topics.

3) The key issue:

Comprises the central inquiries of the study issue and seeks to gather essential data to address the research inquiry. The questions are related to a survey that was conducted among the 10 private college EFL administrators to gather information on professional competence development and assistance.

4) Closing question:

In closing, find out what kind of outside or school-based support the interviewee would personally want to have, and discuss potential ways to make involvement in the professional development of EFL instructors at private colleges better.

The interview consisted of questions Gained by using the results from the questionnaire to verify the value of professional support as well as the positive impact that professional support and professional identity had on the development of professional competence among EFL instructors.

Coding interview data was a critical component of this study's second phase (Okal, Yildirim, & Timur, 2020). The researcher went over the interview transcripts very carefully in this step and code the interviews according to the frequency with which the research questions surface in the interviews and the relevant criteria. The gathered qualitative data is fundamentally organized using this coding procedure. Transparency and traceability in the research process were ensured by the researcher's meticulous documentation of the analysis process and any conceptual concepts that emerge in a memo.

The final phase involved creating a cohesive theoretical framework by combining the coded data into broad topics. Thematic content analysis was also

adopted to analyze the interview answers, thematic content analysis was a qualitative method used for identifying, analyzing, and reporting recurring patterns or themes within data (Gumilar & Ismail, 2023). To find patterns, linkages, and recurrent themes in the interview responses was the goal of this phase, in which the researcher would examine the logical interconnections between each code. The study's theoretical framework was connected to and further contextualized with these subjects.

In this study, the content analysis and coding system of the three: Coding, Categorizing and Concept (Lichtman, 2013) was also adopted. Details of the process is shown as follow in table 3.10.

Table 3.10 The Steps of Conducting Data Analysis Proposed

| Steps  | Details                                                                                                                                                                                                                                               |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Step 1 | Firstly, the researcher prepared and organized the text by putting the text into the documents and transcribing and summarizing the text.                                                                                                             |
| Step 2 | Secondly, the researcher analyzed the text from the participants interview answers one by one.                                                                                                                                                        |
| Step 3 | Thirdly, the researcher produced the key ideas related to the dependent variables the study investigated in order to reveal additional evidence of association with the quantitative data.                                                            |
| Step 4 | Fourthly, the researcher revised the ideas based on additional rereading and reviewed the data.                                                                                                                                                       |
| Step 5 | Fifthly, the researcher revisited the categories. For the qualitative data collected by the semi-structured interview, the current study adopted the content analysis and coding system of the three Cs: Code, Category and Concept (Lichtman, 2013). |
| Step 6 | Lastly, the researcher put the categories into concepts/themes.                                                                                                                                                                                       |

### 3.8.1 An Example of 3Cs

Based on Litchman's 3Cs Cycle (Coding, Categorizing, Conceptualizing), here is an example of how to analyze qualitative interview data for a different study, let's say an exploration of student experiences with online learning during the COVID-19 pandemic. This example is simple, logical, and easy to understand.

### Step 1: Coding

Goal: Break down the interview transcripts into manageable units of analysis, usually referred to as codes.

#### Example:

Let's assume we have an interview transcript with a student named Sarah discussing her experience with online learning. Here's an excerpt:

"At first, I was really overwhelmed by the transition to online classes. It was hard to stay focused with all the distractions at home. But then I started using a separate room just for studying, and that really helped me concentrate better."

#### Coding:

Code 1: Transition to online classes

Code 2: Overwhelmed

Code 3: Distractions at home

Code 4: Separate room for studying

Code 5: Concentrate better

### Step 2: Categorizing

Goal: Group similar codes together to create broader categories that reflect the main themes emerging from the data.

#### Example:

Based on the codes identified in Step 1, we can categorize them as follows:

Category 1: Initial Challenges (Codes 1, 2, 3)

Encompasses the difficulties Sarah faced initially with the transition to online learning, feeling overwhelmed, and distractions at home.

Category 2: Coping Strategies (Code 4, 5)

Includes the strategies Sarah implemented to overcome the initial challenges, specifically dedicating a separate room for studying and the resulting improvement in concentration.

### Step 3: Conceptualizing

Goal: Develop an overarching conceptual framework that explains the relationship between the categories and the central phenomenon being studied.

#### Example:

Based on the categories identified in Step 2, we can develop the following conceptual framework:

Central Phenomenon: Student Experiences with Online Learning During COVID-19

Initial Challenges: Many students, like Sarah, faced initial difficulties adapting to online learning due to distractions at home and feelings of overwhelm.

Coping Strategies: To mitigate these challenges, students adopted various coping strategies, such as creating dedicated study spaces and implementing routines to improve focus and motivation.

#### Conceptual Framework Summary:

The transition to online learning during the COVID-19 pandemic presented unique challenges for students, particularly in terms of distractions and overwhelm. However, by adopting coping strategies like dedicating separate spaces for studying and implementing routines, students were able to adapt and overcome these initial hurdles, ultimately enhancing their online learning experiences.

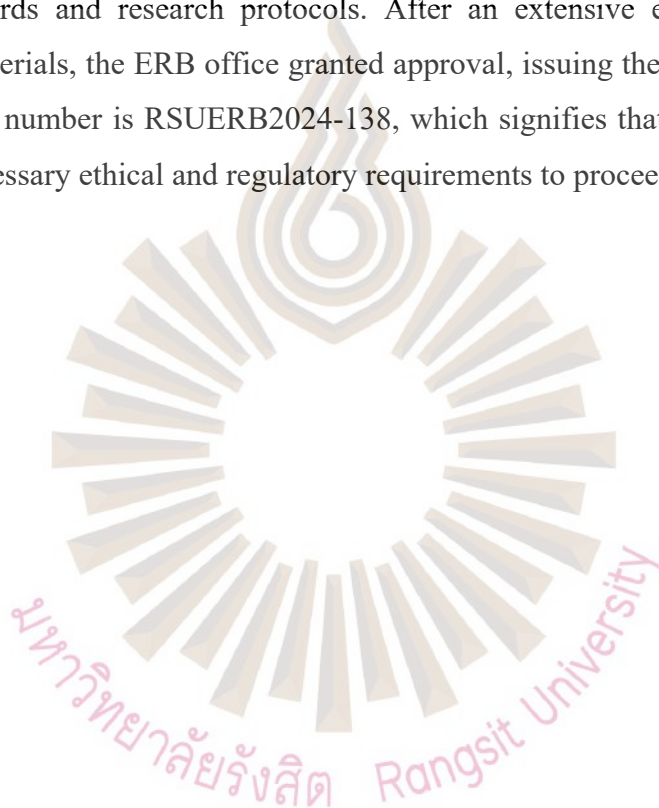
This simple example illustrates how the 3Cs Cycle can be applied to analyze qualitative interview data, breaking down the raw transcripts into manageable codes, categorizing those codes into broader themes, and finally conceptualizing those themes into an overarching framework that explains the study's central phenomenon.

## 3.9 Ethical Consideration

In this study, after granted permission for collecting data, regarding the matter of personal information, the private information of the participants in qualitative and quantitative should not be revealed without consent. All data collected in this study

would not be shared without the participants' authorization and would only be used for the purposes of this research.

Apart from this, all pertinent materials, including the detailed proposal, comprehensive questionnaires, and ethics-related documents, were meticulously prepared and subsequently handed to the ERB office for thorough review. The review process involved a rigorous examination of each document to ensure compliance with ethical standards and research protocols. After an extensive evaluation of all the submitted materials, the ERB office granted approval, issuing the ERB certificate, and the certificate number is RSUERB2024-138, which signifies that the research project meets the necessary ethical and regulatory requirements to proceed.



## **CHAPTER 4**

### **DATA ANALYSIS**

This Chapter is about the results of the data analysis of quantitative and qualitative data. The purpose of this chapter is to answer the research questions. The research questions are as follows.

#### **Main Research Question**

How do college internal support, social support, and educational directors' support affect EFL instructors' professional competence development and identity in private colleges, and how can these be optimized according to ecological education theory, considering their future changes and interactions at different ecosystem levels?

#### **Research Question 1**

How do college internal support, social support and educational directors support concretely affect the professional competence development of EFL instructors in private colleges?

#### **Research Question 2**

Does professional identity play a mediating role among private college internal support, social support, educational directors support and EFL instructors' professional competence?

#### **Research Question 3**

How do these supporting factors interact with professional identity and thus affect EFL instructors' professional competence, in different ecosystem levels?

#### Research Question 4

How to enhance the support provided by private colleges, society, and educational directors based on ecological education theory, in order to boost the professional identity and proficiency of EFL instructors?

#### Research Question 5

Will the influence of these supporting factors and mediating variables on EFL instructors' professional competence change in the future?

### 4.1 The Analysis of Quantitative Data

A total of 473 formal questionnaires were gathered by the study from EFL instructors in ten private colleges in Sichuan Province, China, based on the distribution ratio of stratified sampling. Upon removing the samples that consistently had scale filling results and filled out in less than 5 minutes or more than 12 minutes, 436 valid questionnaires were ultimately kept, resulting in a 92.18% questionnaire efficiency. As per Mitchell's (1993) recommendation, "the number of samples should be at least 10-20 times the number of model variables." This was achieved.

#### 4.1.1 Description of Sample Characteristics

Based on the sample data collected in this study, I conducted a descriptive analysis of the sample's demographic variable characteristics and came to the following conclusions:

In the sample, there are 306 female EFL instructors accounting for 70.18% of the total, while there are only 130 male EFL instructors, accounting for 29.82%. This data clearly reflects that female instructors are the main force among EFL instructors in private colleges in Sichuan Province, China.

With a total of 381 individuals, or 87.39% of the teaching population, married teachers made up the vast majority of the profession; in comparison, there were only 55 unmarried teachers, or 12.61%. This characteristic demonstrates that the majority of the sample's instructor group is married.

The sample instructors' age distribution shows that they are mostly in the middle age range, with 265 individuals, or 60.78%, falling into the 36–45 age bracket. Teachers in the remaining age groups—25–35, 46–55, and 56 years and older—make up 22.02%, 9.17%, and 8.03% of the total. The sample's middle-aged instructors hold a dominant position, as seen by this structure.

The majority of the sample instructors have some professional experience under their belts, but they do not yet hold senior level positions. In particular, about 80% of instructors have worked for one to ten years; of these, 173 teachers (39.68%) have worked for one to five years, and 170 teachers (38.99%) have worked for six to ten years. With 15.37% having 11 to 15 years of experience and only 5.96% having 16 years or more, instructors with more than 10 years of professional experience are comparatively rare.

The sample instructors had a strong educational background overall, with master's degree holders making up the largest share (60.55%; 264 individuals), suggesting that this group has had high-quality higher education. 25.92% (113 persons) and 13.53% (59 individuals) of the population have bachelor's and doctorate degrees, respectively.

In terms of professional titles, the distribution of sample instructors is fairly balanced, with a sizable number of 43.35% (189 individuals) and 35.32% (154 people) being lecturers and teaching assistants, respectively. An additional percentage of teachers, 21.33% (93 persons), have the position of associate professor or above. It can be seen from this distribution that the sample instructors have achieved certain career goals in teaching or research roles, as well as a particular professional standing.

In summary, the sample group is mainly composed of female, married, middle-aged people with certain work experience and high education. Lecturers and teaching assistants account for a large proportion of the job title distribution, but the overall job title distribution is relatively balanced, shown in table 4.1.

Table 4.1 Demographic Variable Characteristics

| Variable               | Options                       | Frequency | Valid Percent |
|------------------------|-------------------------------|-----------|---------------|
| Gender                 | Male                          | 130       | 29.82%        |
|                        | Female                        | 306       | 70.18%        |
| Marriage Status        | Unmarried                     | 55        | 12.61%        |
|                        | Married                       | 381       | 87.39%        |
| Age                    | 25-35 years old               | 96        | 22.02%        |
|                        | 36-45 years old               | 265       | 60.78%        |
|                        | 46-55 years old               | 40        | 9.17%         |
|                        | 56 and above                  | 35        | 8.03%         |
| Work Experience        | 1-5 years                     | 173       | 39.68%        |
|                        | 6-10 years                    | 170       | 38.99%        |
|                        | 11-15 years                   | 67        | 15.37%        |
|                        | 16 and above                  | 26        | 5.96%         |
| Educational background | Bachelor Degree               | 113       | 25.92%        |
|                        | Master Degree                 | 264       | 60.55%        |
|                        | Doctor Degree                 | 59        | 13.53%        |
| Professional Title     | Teaching Assistant            | 154       | 35.32%        |
|                        | Lecturer                      | 189       | 43.35%        |
|                        | Associate Professor and Above | 93        | 21.33%        |
| Total                  |                               | 436       | 100%          |

#### 4.1.2 Reliability Test

The reliability of the scale in the official questionnaire was confirmed by the research using SPSS26 statistical analysis software, which calculated the reliability coefficients of each scale dimension. The reliability coefficients of each dimension in the three scales used in this study are all over 0.8, according to the reliability analysis results, showing that the scales employed in this questionnaire evaluate outcomes with excellent consistency, as is shown in table 4.2.

Table 4.2 Reliability Test of Variables

| Variable                                          | Dimension                             | Cronbach's Alpha | N of Items |
|---------------------------------------------------|---------------------------------------|------------------|------------|
| Professional Competence Development Support Scale | Private College Support (PCS)         | 0.918            | 6          |
|                                                   | Social Support (SS)                   | 0.816            | 4          |
|                                                   | Educational Directors Support (EDS)   | 0.864            | 5          |
| EFL Instructor Professional Value Scale           | Professional Values (PV)              | 0.846            | 5          |
|                                                   | Professional Sense of Belonging (PB)  | 0.890            | 4          |
|                                                   | Professional Efficacy (PE)            | 0.819            | 4          |
| Scale of EFL Instructor Professional Competence   | Language Application Competence (LAC) | 0.908            | 6          |
|                                                   | Teaching English Competence (TEC)     | 0.903            | 6          |
|                                                   | Scientific Research Competence (SRC)  | 0.882            | 6          |

#### 4.1.3 Validity Test

The study employed Amos24 software to create a confirmatory factor analysis model and carry out confirmatory factor analysis in order to further ascertain the convergent validity of the questionnaire scale.

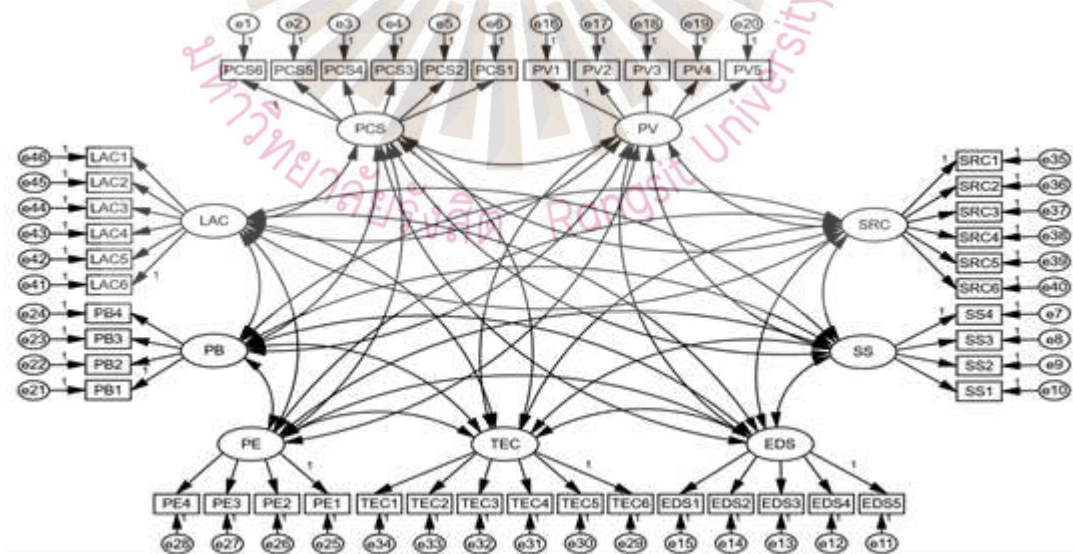


Figure 4.1 Confirmatory Factor Analysis

### 1) Model Fit Index

Confirmatory factor analysis model fit indicators show that the confirmatory factor model is well fitted as all of the model fit indicators are in line with the reference values, shown in table 4.3.

Table 4.3 Model Fit Index

| Indicator       | X <sup>2</sup> /DF | RMSEA | SRMR  | GFI   | AGFI  | NFI   | TLI   | CFI   |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| Reference value | ≤3                 | <0.08 | <0.08 | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  |
| Measured value  | 1.313              | 0.027 | 0.031 | 0.894 | 0.880 | 0.898 | 0.971 | 0.973 |

### 2) Convergent Validity Test

The combined reliability (CR) and average variance extracted (AVE) of each scale dimension were then determined by the study using the Exps tool. The average variance extracted (AVE) was larger than 0.5 and the combined reliability (CR) of each scale dimension was greater than 0.7, both of which satisfied the pertinent norms. These findings suggested that the scale questionnaires employed in this study had strong convergent validity, as is shown in table 4.4.

Table 4.4 Convergent Validity

| Path       | Estimate | AVE   | C.R.  |
|------------|----------|-------|-------|
| PCS6<--PCS | 0.805    | 0.652 | 0.918 |
| PCS5<--PCS | 0.832    |       |       |
| PCS4<--PCS | 0.812    |       |       |
| PCS3<--PCS | 0.805    |       |       |
| PCS2<--PCS | 0.794    |       |       |
| PCS1<--PCS | 0.796    |       |       |
| SS4<--SS   | 0.723    | 0.527 | 0.817 |
| SS3<--SS   | 0.699    |       |       |
| SS2<--SS   | 0.717    |       |       |
| SS1<--SS   | 0.763    |       |       |
| EDS5<--EDS | 0.771    | 0.561 | 0.865 |
| EDS4<--EDS | 0.719    |       |       |
| EDS3<--EDS | 0.734    |       |       |

Table 4.4 Convergent Validity (Cont.)

| Path       | Estimate | AVE   | C.R.  |
|------------|----------|-------|-------|
| EDS2<--EDS | 0.748    |       |       |
| EDS1<--EDS | 0.771    |       |       |
| PV1<--PV   | 0.703    | 0.525 | 0.847 |
| PV2<--PV   | 0.743    |       |       |
| PV3<--PV   | 0.699    |       |       |
| PV4<--PV   | 0.723    |       |       |
| PV5<--PV   | 0.753    |       |       |
| PB1<--PB   | 0.826    | 0.668 | 0.89  |
| PB2<--PB   | 0.813    |       |       |
| PB3<--PB   | 0.832    |       |       |
| PB4<--PB   | 0.798    |       |       |
| PE1<--PE   | 0.723    | 0.531 | 0.819 |
| PE2<--PE   | 0.727    |       |       |
| PE3<--PE   | 0.735    |       |       |
| PE4<--PE   | 0.729    |       |       |
| LAC1<--LAC | 0.801    | 0.622 | 0.908 |
| LAC2<--LAC | 0.767    |       |       |
| LAC3<--LAC | 0.795    |       |       |
| LAC4<--LAC | 0.769    |       |       |
| LAC5<--LAC | 0.814    |       |       |
| LAC6<--LAC | 0.785    |       |       |
| TEC1<--TEC | 0.797    | 0.609 | 0.903 |
| TEC2<--TEC | 0.786    |       |       |
| TEC3<--TEC | 0.788    |       |       |
| TEC4<--TEC | 0.749    |       |       |
| TEC5<--TEC | 0.787    |       |       |
| TEC6<--TEC | 0.773    |       |       |
| SRC1<--SRC | 0.724    | 0.555 | 0.882 |
| SRC2<--SRC | 0.719    |       |       |
| SRC3<--SRC | 0.734    |       |       |
| SRC4<--SRC | 0.783    |       |       |
| SRC5<--SRC | 0.778    |       |       |
| SRC6<--SRC | 0.731    |       |       |

### 3) Discriminant Validity Test

The  $\sqrt{AVE}$  values of each dimension were cross-compared with the correlation coefficients among the dimensions. The findings demonstrated that all of the dimension correlation coefficients were lower than the corresponding  $\sqrt{AVE}$ . As a result, the discriminant validity of every scale questionnaire utilized in this study is good, as is shown in table 4.5.

Table 4.5 Discriminant Validity Result

| Dimension | PCS   | SS    | EDS   | PV    | PB    | PE    | LAC   | TEC   | SRC   |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PCS       | 0.807 |       |       |       |       |       |       |       |       |
| SS        | 0.311 | 0.726 |       |       |       |       |       |       |       |
| EDS       | 0.100 | 0.270 | 0.749 |       |       |       |       |       |       |
| PV        | 0.216 | 0.319 | 0.273 | 0.725 |       |       |       |       |       |
| PB        | 0.249 | 0.294 | 0.165 | 0.352 | 0.817 |       |       |       |       |
| PE        | 0.353 | 0.402 | 0.272 | 0.314 | 0.161 | 0.729 |       |       |       |
| LAC       | 0.402 | 0.361 | 0.273 | 0.351 | 0.362 | 0.392 | 0.789 |       |       |
| TEC       | 0.303 | 0.332 | 0.289 | 0.361 | 0.430 | 0.361 | 0.663 | 0.780 |       |
| SRC       | 0.461 | 0.443 | 0.337 | 0.438 | 0.456 | 0.427 | 0.721 | 0.682 | 0.745 |

Conclusively, confirmatory factor analysis verified that the scale's factors aligned with theoretical assumptions and that the inter-factor correlations were dependable and steady. This demonstrates that the scale can measure the target components with effectiveness and offers a strong basis for more empirical study and implementation.

#### 4.1.4 Descriptive Analysis of Variables

The measurement scores of EFL instructors in private colleges in Sichuan Province, China, indicate that they perform relatively well overall, with no extreme low or high scores. This is because the mean values of most dimensions, including professional competence development support, professional identity, and professional competence, are concentrated between 3.00 and 3.40. In particular:

The mean score of internal support in private colleges is relatively high (3.36), indicating that overall, the internal support for EFL instructors in private colleges is at an above-average level, but there is still room for improvement. This is in reference to the perception of external support for the professional development of EFL instructors in private colleges and universities in Sichuan Province. English instructors get comparatively ordinary social support, as seen by the average score of 3.24, which is somewhat lower than the internal support of private colleges. The educational directors support score (3.16) is the lowest of the three, suggesting that their backing for instructors is not as strong as it might be.

The mean values of the two dimensions of professional value (3.10) and professional belonging (3.01), particularly professional belonging, are relatively low, according to the results of the measurement of the professional value of EFL instructors in private colleges in Sichuan Province. This indicates that the English instructors in these private colleges have a relatively weak sense of identity and professional belonging to their own professional values. On the other hand, the professional effectiveness measurement findings show that, on average, they feel more effective and confident in their job, with a mean score of 3.38, suggesting that they remain confident in their work capability and career advancement.

The average competence in teaching score of English instructors in private colleges in Sichuan Province, based on their self-assessment of professional competence, is 3.27. This indicates that while this group possesses a certain level of professionalism and practical ability in teaching, there is still room for improvement. Both linguistic ability and scientific research competencies have very low scores (3.18).

When it comes to internal support from private colleges, social support, support from educational directors, professional value, professional belonging, and professional efficacy, EFL instructors at private colleges in Sichuan Province exhibit a moderate degree of happiness and sentiments overall. However, teachers' satisfaction is rather low when it comes to social support, support from education directors, and a

sense of professional belonging. This is something that relevant departments need to be aware of and work to improve. In addition, there is potential for growth in the language competence, teaching proficiency, and scientific research proficiency of instructors; in particular, there is a need for more training and development in the areas of scientific research competence and competence in languages.

Table 4.6 Descriptive Analysis

| Dimension | Minimum | Maximum | Mean | Std. Deviation |
|-----------|---------|---------|------|----------------|
| PCS       | 1.00    | 5.00    | 3.36 | 1.22           |
| SS        | 1.00    | 5.00    | 3.24 | 1.14           |
| EDS       | 1.00    | 5.00    | 3.16 | 1.15           |
| PV        | 1.00    | 5.00    | 3.10 | 1.12           |
| PB        | 1.00    | 5.00    | 3.01 | 1.27           |
| PE        | 1.00    | 5.00    | 3.38 | 1.14           |
| LAC       | 1.00    | 5.00    | 3.18 | 1.20           |
| TEC       | 1.17    | 5.00    | 3.27 | 1.20           |
| SRC       | 1.00    | 4.83    | 3.18 | 1.08           |

#### 4.1.5 Variable Correlation Analysis

From the Pearson correlation analysis between variables, it can be seen that there is a positive correlation between each dimension, and it is significant at the 0.05 level. Therefore, this result preliminarily shows that the hypothesis of this study is established, but the final conclusion requires further hypothesis verification, as is shown in table 4.7.

Table 4.7 Correlation Analysis

| Dimension | PCS     | SS      | EDS     | PV      | PB      | PE | LAC | TEC | SRC |
|-----------|---------|---------|---------|---------|---------|----|-----|-----|-----|
| PCS       | 1       |         |         |         |         |    |     |     |     |
| SS        | 0.311** | 1       |         |         |         |    |     |     |     |
| EDS       | 0.100*  | 0.270** | 1       |         |         |    |     |     |     |
| PV        | 0.216** | 0.319** | 0.273** | 1       |         |    |     |     |     |
| PB        | 0.249** | 0.294** | 0.165** | 0.352** | 1       |    |     |     |     |
| PE        | 0.353** | 0.402** | 0.272** | 0.314** | 0.161** | 1  |     |     |     |

Table 4.7 Correlation Analysis (Cont.)

| Dimension | PCS     | SS      | EDS     | PV      | PB      | PE      | LAC     | TEC     | SRC |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| LAC       | 0.402** | 0.361** | 0.273** | 0.351** | 0.362** | 0.392** | 1       |         |     |
| TEC       | 0.303** | 0.332** | 0.289** | 0.361** | 0.430** | 0.361** | 0.663** | 1       |     |
| SRC       | 0.461** | 0.443** | 0.337** | 0.438** | 0.456** | 0.427** | 0.721** | 0.682** | 1   |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

#### 4.1.6 Hypothesis Test

The study employed AMOS24 software to conduct structural equation model (SEM) analysis after analyzing the statistical characteristics of dimensions like internal support from private colleges, social support, support from education directors, professional values, professional belonging, and professional efficacy. This can further verify the interaction between these dimensions and their potential impact on the development of professional competencies among EFL instructors.

##### 4.1.6.1 Hypothesis Test of Private College Internal Support and Professional Identity

Concerning the relationship among professional identity, professional competence, and private college internal support, the study put up the following four hypotheses:

H1: The internal support of private colleges has a significant positive impact on the professional competence development of EFL instructors.

H1a: The professional values of EFL instructors in private colleges play a mediating role in the influence of college internal support on their professional competence development.

H1b: The professional belonging of EFL instructors in private colleges plays a mediating role in the influence of college internal support on their professional competence development.

H1c: The professional efficacy of EFL instructors in private colleges plays a mediating role in the influence of college internal support on their professional competence development.

The study builds a structural equation model in which EFL instructors' professional efficacy, professional value, and sense of professional belonging serve as mediating variables, and professional competencies for professional development (PCD=LAC+TEC+SRC) serves as the dependent variable. Internal support from private college is the independent variable in this model. as seen in the figure 4.2.

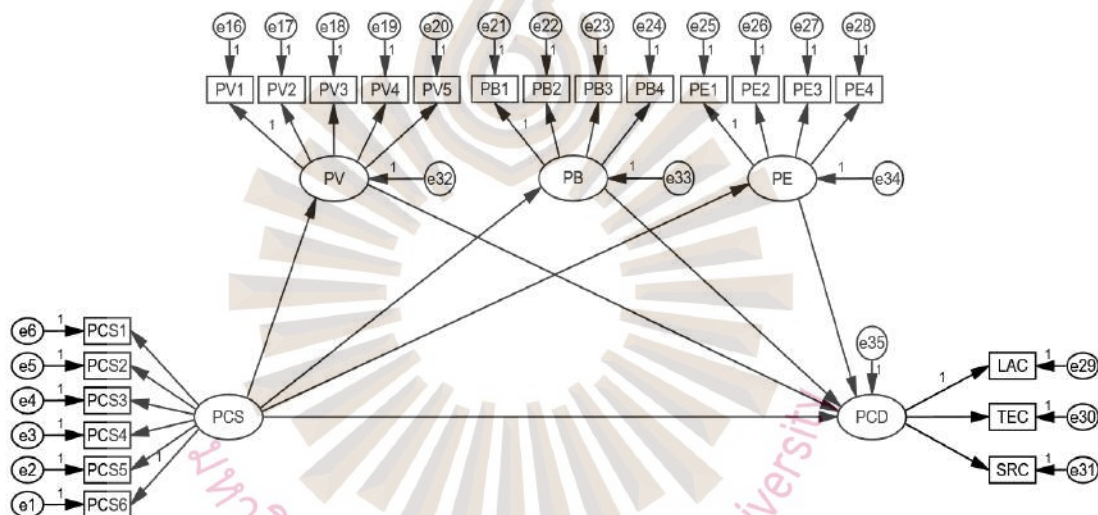


Figure 4.2 The SEM Diagram of PCS, PI, PCD

#### 1) Model Fit Index

The actual values of several major goodness of fit indexes of the structural model all satisfy the necessary conditions, as indicated by the goodness of fit index of the structural equation model. This suggests that there is little variation between the predicted and actual measured values of the evaluation model the study established.

Table 4.8 Model Fit Index

| Indicator       | X <sup>2</sup> /DF | RMSEA | SRMR  | GFI   | AGFI  | NFI   | TLI   | CFI   |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| Reference value | ≤3                 | <0.08 | <0.08 | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  |
| Measured value  | 1.552              | 0.036 | 0.079 | 0.940 | 0.925 | 0.941 | 0.975 | 0.978 |

## 2) Hypothesis test results

The development of professional competence at private colleges is positively impacted by internal support, as demonstrated by the study of structural equation models ( $\beta = 0.245$ ,  $p < 0.01$ ). At the same time, private colleges have a strong internal support system for professional efficacy, professional value, and professional belonging. It has a major mediating influence on the professional competence of EFL instructors; the respective mediating effect sizes are 20.32%, 28.83%, and 33.55%. The findings indicate that internal assistance at private colleges can enhance professional development competences directly and indirectly by strengthening their awareness of themselves as professionals.

Table 4.9 H1, H1a, H1b, H1c Hypothesis Test Results

| Hypothesis |              |                    | Estimate | S.E.  | C.R.  | Lower | Upper | P     | Proportion of indirect effect |
|------------|--------------|--------------------|----------|-------|-------|-------|-------|-------|-------------------------------|
| H1         | PCD<-PCS     | Regression Weights | 0.245    | 0.057 | 4.298 | 0.131 | 0.353 | 0.001 | -                             |
| H1a        | PCD<-PV<-PCS | Total effects      | 0.251    | 0.052 | 4.827 | 0.147 | 0.351 | 0.001 | 20.32%                        |
|            |              | direct effects     | 0.200    | 0.049 | 4.082 | 0.105 | 0.295 | 0.001 |                               |
|            |              | Indirect effects   | 0.051    | 0.018 | 2.833 | 0.022 | 0.094 | 0.001 |                               |
| H1b        | PCD<-PB<-PCS | Total effects      | 0.281    | 0.050 | 5.620 | 0.182 | 0.372 | 0.001 | 28.83%                        |
|            |              | direct effects     | 0.200    | 0.049 | 4.082 | 0.105 | 0.295 | 0.001 |                               |
|            |              | Indirect effects   | 0.081    | 0.021 | 3.857 | 0.044 | 0.129 | 0.001 |                               |
| H1c        | PCD<-PE<-PCS | Total effects      | 0.301    | 0.045 | 6.689 | 0.210 | 0.386 | 0.001 | 33.55%                        |
|            |              | direct effects     | 0.200    | 0.049 | 4.082 | 0.105 | 0.295 | 0.001 |                               |
|            |              | Indirect effects   | 0.101    | 0.026 | 3.885 | 0.059 | 0.164 | 0.001 |                               |

In conclusion, the study's research hypotheses (H1, H1a, H1b, and H1c) about the interplay between professional identity, private college support, and professional competence are all validated, as is shown in figure 4.3.

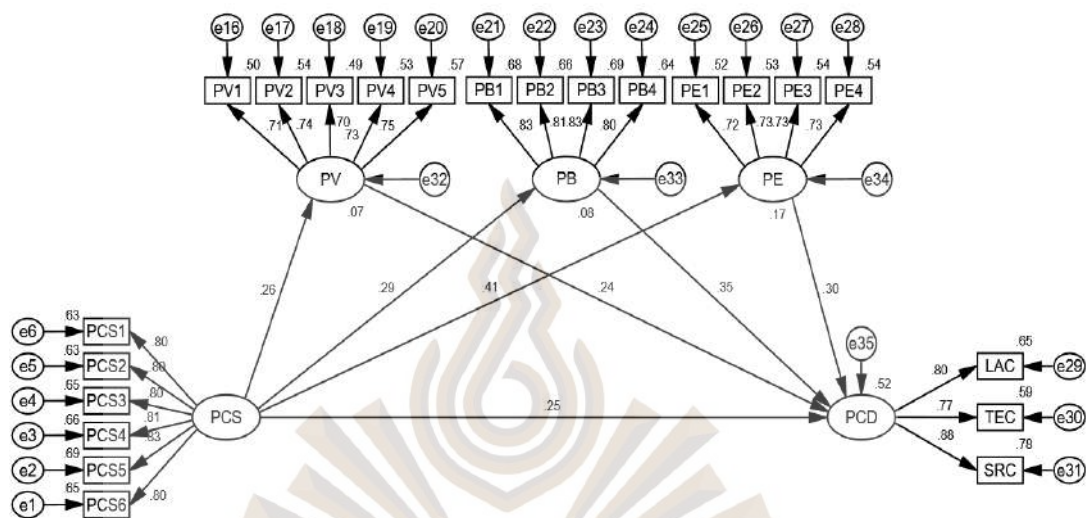


Figure 4.3 The SEM Diagram of PCS, PI, PCD Test Result

#### 4.1.6.2 Hypothesis Test Among Social Support, Professional Identity and Professional Competence

The study proposed the following four hypotheses regarding the interaction between social support, professional identity, and professional competence:

H2: Social support has a significant positive impact on the professional competence development of EFL instructors in private college.

H2a: The professional values of EFL instructors in private colleges play a mediating role in the influence of social support on their professional competence development.

H2b: The professional belonging of EFL instructors in private colleges plays a mediating role in the influence of social support on their professional competence development.

H2c: The professional efficacy of EFL instructors in private colleges plays a mediating role in the influence of social support on their professional competence development.

EFL instructors professional competence development ( $PCD = LAC + TEC + SRC$ ) is the dependent variable in this study, which builds a structural equation model with social support as the independent variable and professional value, a sense of professional belonging, and professional efficacy as the mediating variables. as seen in the figure 4.4.

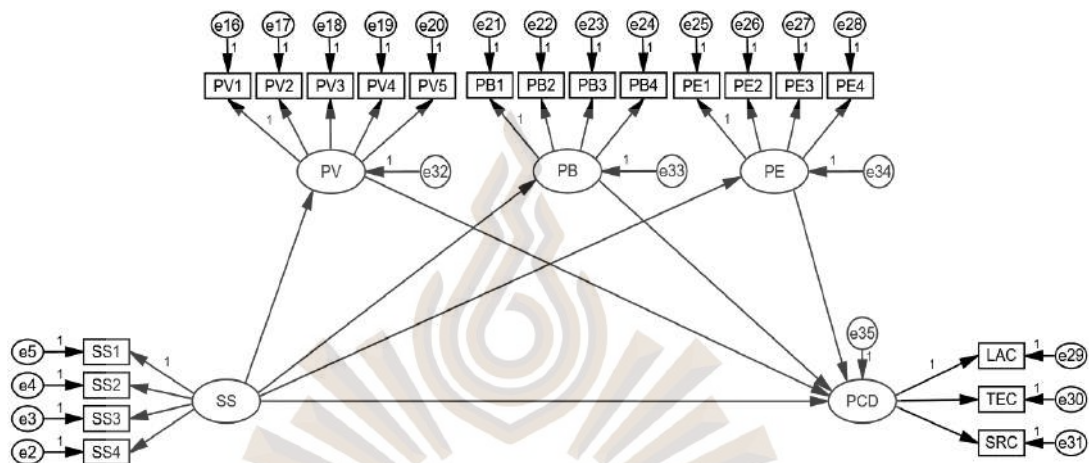


Figure 4.4 The SEM Diagram of SS, PI, PCD

#### 1) Model Fit Index

A small difference is seen between the predicted value and the actual measured value of the evaluation model built in the study, according to the goodness of fit index of the structural equation model, which shows that the actual values of several main goodness of fit indexes of the structural model all meet the relevant requirements as is shown in table 4.10.

Table 4.10 Model Fit Index

| Indicator       | X <sup>2</sup> /DF | RMSEA | SRMR  | GFI   | AGFI  | NFI   | TLI   | CFI   |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| Reference value | ≤3                 | <0.08 | <0.08 | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  |
| Measured value  | 1.440              | 0.032 | 0.062 | 0.949 | 0.935 | 0.944 | 0.979 | 0.982 |

#### 2) The Results of Hypothesis Test

It is evident from structural equation model analysis that social support directly benefits the development of professional competence of EFL instructors ( $\beta=0.175$ ,  $p<0.05$ ). In the interaction between social support and EFL

instructors, professional efficacy, professional value, and professional belonging all play a significant part. The mediating impact sizes of the major mediating role were 33.77%, 42.26%, and 47.24%, respectively, for professional competence. This finding indicates that social support can strengthen EFL teachers' professional identities, which in turn strengthens their professional competences in a way that is both direct and indirect, shown in table 4.11.

Table 4.11 H2, H2a, H2b, H2c Hypothesis Test Results

| Hypothesis |             |                    | Estimate | S.E.  | C.R.  | Lower | Upper | P     | Proportion of indirect effect |
|------------|-------------|--------------------|----------|-------|-------|-------|-------|-------|-------------------------------|
| H2         | PCD<-SS     | Regression Weights | 0.175    | 0.075 | 2.333 | 0.022 | 0.315 | 0.027 | -                             |
| H2a        | PCD<-PV<-SS | Total effects      | 0.231    | 0.067 | 3.448 | 0.092 | 0.348 | 0.003 | 33.77%                        |
|            |             | direct effects     | 0.153    | 0.066 | 2.318 | 0.018 | 0.275 | 0.028 |                               |
|            |             | Indirect effects   | 0.078    | 0.027 | 2.889 | 0.033 | 0.142 | 0.001 |                               |
| H2b        | PCD<-PB<-SS | Total effects      | 0.265    | 0.063 | 4.206 | 0.136 | 0.384 | 0.001 | 42.26%                        |
|            |             | direct effects     | 0.153    | 0.066 | 2.318 | 0.018 | 0.275 | 0.028 |                               |
|            |             | Indirect effects   | 0.112    | 0.027 | 4.148 | 0.067 | 0.179 | 0.001 |                               |
| H2c        | PCD<-PE<-SS | Total effects      | 0.290    | 0.061 | 4.754 | 0.165 | 0.401 | 0.001 | 47.24%                        |
|            |             | direct effects     | 0.153    | 0.066 | 2.318 | 0.018 | 0.275 | 0.028 |                               |
|            |             | Indirect effects   | 0.137    | 0.034 | 4.029 | 0.083 | 0.221 | 0.001 |                               |

Overall, the study's research hypotheses (H2, H2a, H2b, and H2c) on the interplay between professional competence, professional identity, and social support are all validated.

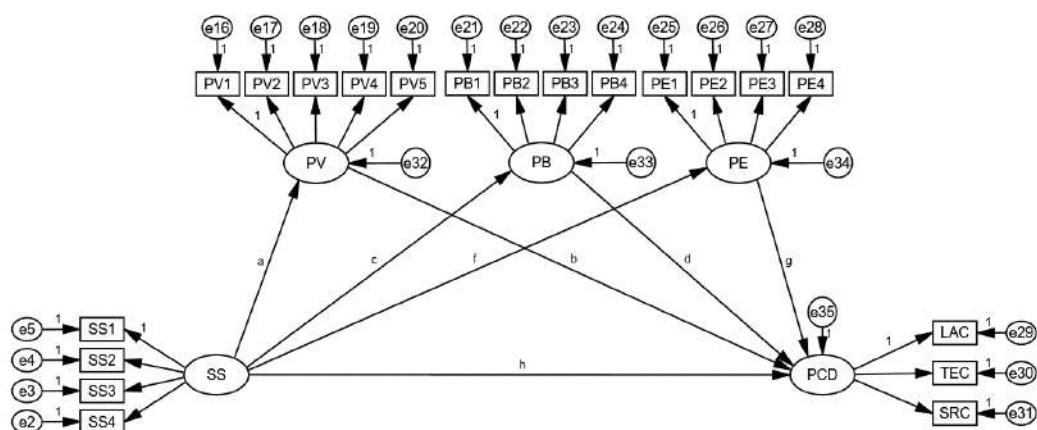


Figure 4.5 The SEM Diagram of SS, PI, PCD Test Result

#### 4.1.6.3 Hypothesis Test Among Educational Directors' Support, Professional Identity and Professional Competencies of EFL Instructors

Regarding the interaction between support from educational directors, professional identity, and professional competence, the study proposed the following four hypotheses:

H3: The support from educational directors has a significant positive impact on the professional competence development of EFL instructors in private colleges.

H3a: The professional values of EFL instructors in private colleges play a mediating role in the influence of the educational directors' support on their professional competence development.

H3b: The professional belonging of EFL instructors in private colleges plays a mediating role in the influence of the support from the educational directors on their professional competence development.

H3c: The professional efficacy of EFL instructors in private colleges and plays a mediating role in the influence of the support of educational directors on their professional competence development.

With the support of the education directors as the independent variable, professional value, sense of professional belonging, and professional efficacy as mediating variables, and the professional competence development of EFL instructors ( $PCD = LAC + TEC + SRC$ ) as the dependent variable, the study builds a structural equation model. as seen in the figure 4.6.

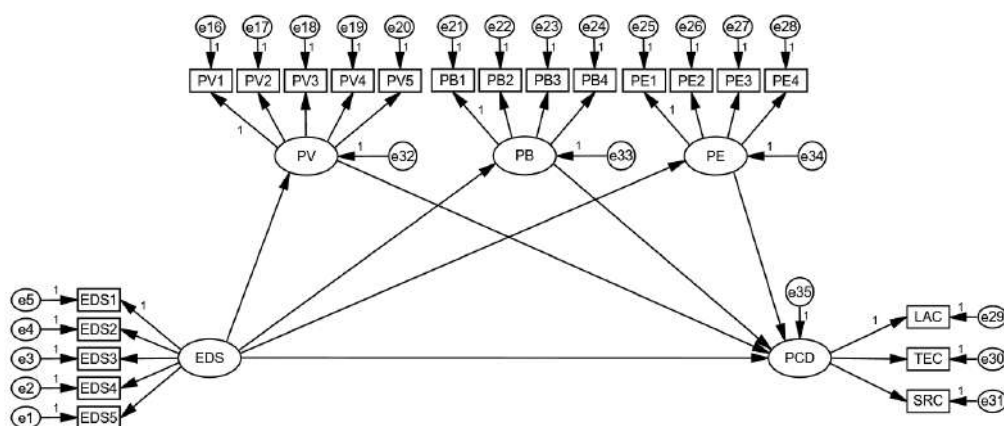


Figure 4.6 The SEM Diagram of EDS, PI, PCD

### 1) Model Fit Index

The actual value of the structural equation model's goodness of fit index, or SRMR, is marginally higher than the reference value standard, but other goodness of fit indexes satisfy the necessary conditions, according to the structural equation model's goodness of fit index, suggesting that there is little variation between the evaluation model's predicted and measured values, as is shown in table 4.12.

Table 4.12 Model Fit Index

| Indicator       | X <sup>2</sup> /DF | RMSEA | SRMR  | GFI   | AGFI  | NFI   | TLI   | CFI   |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| Reference value | ≤3                 | <0.08 | <0.08 | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  | ≥0.8  |
| Measured value  | 1.593              | 0.037 | 0.084 | 0.941 | 0.925 | 0.936 | 0.971 | 0.975 |

### 2) The Results of Hypothesis Test

Based on the examination of structural equation models, it is clear that educational directors' support directly contributes to the professional competence development of language instructors ( $\beta=0.149$ ,  $p<0.05$ ). Simultaneously, professional efficacy, professional value, and professional belonging are crucial components of social support. It has a substantial mediating influence on the professional competence of EFL instructors, with corresponding mediation effect sizes of 33.68%, 35.35%, and 44.83%. This finding indicates that support from educational directors may enhance EFL teachers' professional identities, which in turn can boost their professional competence development both directly and indirectly as is shown in table 4.13.

Table 4.13 H3, H3a, H3b, H3c Hypothesis Test Results

| Hypothesis |              |                    | Estimate | S.E.  | C.R.  | Lower | Upper | P      | Proportion of indirect effect |
|------------|--------------|--------------------|----------|-------|-------|-------|-------|--------|-------------------------------|
| H3         | PCD<-EDS     | Regression Weights | 0.149    | 0.055 | 2.709 | 0.022 | 0.315 | 0.027  | -                             |
| H3a        | PCD<-PV<-EDS | Total effects      | 0.193    | 0.050 | 3.860 | 0.099 | 0.293 | 0.001  | 33.68%                        |
|            |              | direct effects     | 0.128    | 0.048 | 2.667 | 0.041 | 0.220 | 0.007  |                               |
|            |              | Indirect effects   | 0.065    | 0.023 | 2.826 | 0.027 | 0.118 | 0.001  |                               |
| H3b        | PCD<-PB<-EDS | Total effects      | 0.198    | 0.051 | 3.882 | 0.106 | 0.298 | 0.001  | 35.35%                        |
|            |              | direct effects     | 0.128    | 0.048 | 2.667 | 0.041 | 0.220 | 0.007  |                               |
|            |              | Indirect effects   | 0.070    | 0.023 | 3.043 | 0.034 | 0.124 | <0.000 |                               |

Table 4.13 H3, H3a, H3b, H3c Hypothesis Test Results (Cont.)

| Hypothesis |              |                  | Estimate | S.E.  | C.R.  | Lower | Upper | P      | Proportion of indirect effect |
|------------|--------------|------------------|----------|-------|-------|-------|-------|--------|-------------------------------|
| H3c        | PCD<-PE<-EDS | Total effects    | 0.232    | 0.050 | 4.640 | 0.136 | 0.335 | 0.001  | 44.83%                        |
|            |              | direct effects   | 0.128    | 0.048 | 2.667 | 0.041 | 0.220 | 0.007  |                               |
|            |              | Indirect effects | 0.104    | 0.025 | 4.160 | 0.063 | 0.161 | <0.000 |                               |

In closing, the study's research hypotheses H3, H3a, H3b, and H3c—which centre on the interplay between professional identity, professional competence, and educational directors' support—have all been proven, seen in figure 4.7.

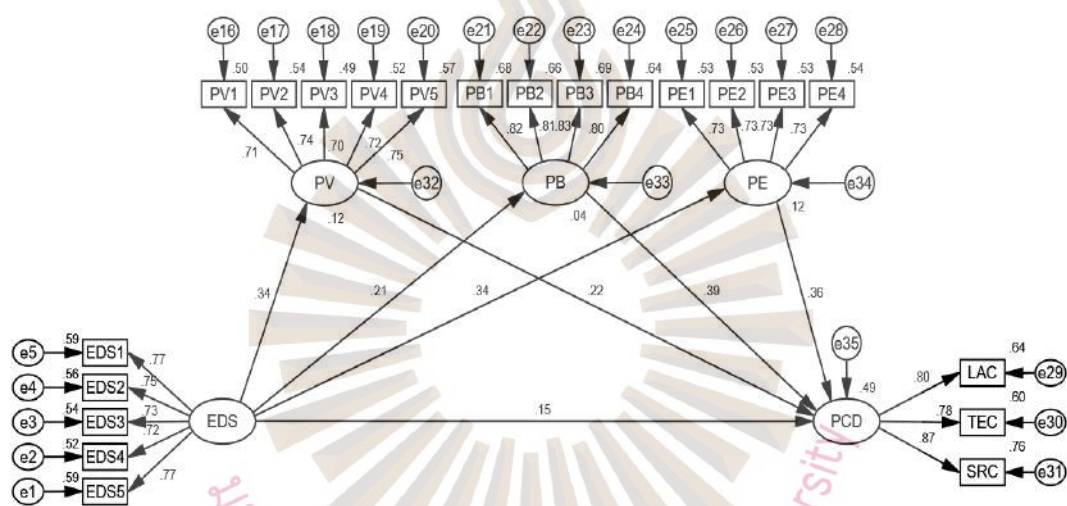


Figure 4.7 The SEM Diagram of EDS, PI, PCD

It is evident that the 12 research hypotheses produced in this investigation are all legitimate.

## 4.2 The Analysis of Qualitative Data

### 4.2.1 Basic Information of Participants

The interviewees for the interview were from ten private colleges, and there were 10 administrators in total. The personal information of interviewees is shown in Table 4.14 as follows:

Table 4.14 Basic Information of participants

| Participants   | Age | Professional Title  | Position      |
|----------------|-----|---------------------|---------------|
| participant 1  | 40  | Associate Professor | Administrator |
| participant 2  | 55  | Professor           | Administrator |
| participant 3  | 45  | Associate Professor | Administrator |
| participant 4  | 37  | Lecturer            | Administrator |
| participant 5  | 36  | Associate Professor | Administrator |
| participant 6  | 43  | Associate Professor | Administrator |
| participant 7  | 34  | Lecturer            | Administrator |
| participant 8  | 39  | Associate Professor | Administrator |
| participant 9  | 42  | Associate Professor | Administrator |
| participant 10 | 33  | Lecturer            | Administrator |

All the interviewees were the administrators from each private college, aged from 33 to 55, they have very rich experience in English teaching, and also they know very well about the situation of EFL instructors in their college, because they are responsible for English teaching in their college.

The qualitative findings demonstrate the close relationship between different types of support and the growth of professional competence among private college EFL instructors, including language competency, teaching competence, and scientific research competence. These consist of social assistance, educational directors' advice, and the college's internal support. In order to support instructors in their total professional development, each of these factors is essential in raising their sense of professional value, efficacy, and belonging.

First and foremost, internal support from private colleges is essential to fostering the professional value of EFL teachers. Colleges are able to provide a multitude of opportunities and resources that are specifically designed to meet the requirements of their instructors and staff. Teachers may keep up to date and have the resources they need to teach effectively by attending the college's regular training sessions and seminars, which highlight the newest teaching techniques and educational technology. In addition, providing financial assistance for research projects and

sabbatical periods to instructors fosters intellectual development and enhances their professional reputations. These programs help teachers feel valued and acknowledged, which strengthens their perception of the significance of their work and raises their status as professionals.

Second, improving the professional efficacy of EFL instructors at private colleges requires the support of educational directors. The goal and direction for teacher development at the college are mostly established by the educational directors. They make certain that instructors have access to excellent learning resources and growth opportunities by creating extensive professional development programs and policies. Additionally, praising and rewarding outstanding research and teaching efforts with a variety of rewards—like bonuses, promotions, and public recognition—greatly increases their motivation and engagement. As a consequence, they are able to teach with greater efficiency and productivity, which raises professional efficacy and improves student results.

Furthermore, a private college EFL instructor's professional sense of belonging is greatly enhanced by the social support they receive from friends, family, and the community. Teachers have a sense of fulfillment and happiness that surpasses financial incentives when they are acknowledged and respected by their social group. They're more inclined to create a strong sense of belonging to their career when they believe that their surroundings admire and appreciate them. Teachers are inspired to continually enhance their language proficiency, teaching competence, and scientific research competence as a result of this sense of belonging, which cultivates a strong commitment to teaching and learning. In addition to providing teachers with emotional support, social support also helps them stay optimistic about their work and get through challenging circumstances.

In summary, the interaction of social support, educational directors' guidance, and internal support at private colleges creates a strong environment that fosters the professional development of language instructors at these types of colleges. By offering chances for development and recognition, it not only increases their

professional value but also strengthens their professional efficacy by putting in place efficient policies and programs. Teachers' dedication to their work is further strengthened by the sense of belonging that social support promotes, which inspires them to constantly improve their language proficiency, teaching competence, and scientific research competence. In the end, this all-encompassing support structure helps private college EFL instructors grow holistically and maintains their position at the forefront of educational achievement.

The next stage will present the analysis of qualitative data.

#### 4.2.2 Qualitative Analysis

Interviews were conducted with ten administrators from each private college. They each took around twenty minutes. The participants had been informed by the researcher about the study before to the interview. In order to create raw data for analysis, the interview was recorded and transcribed. The participants understood full well that the information was secret. The researcher guaranteed the privacy of their data. After the researcher received the scripts, the recording would be removed.

The purpose of the interview was to learn more about the internal support of private colleges, as well as the support of social networks and educational directors, and how these factors impacted EFL teachers' professional identities and the growth of their professional competence. The following table 4.15 presents the results of 3C's analysis of the interview data:

Table 4.15 The Code-Category-Concept Analysis

| Code                                                                                                          | Category                                                                                                      | Concept                                                                                                  |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Training (6)<br>Organizing internal training,<br>Inviting experts for academic<br>exchanges, Regular training | Educational Resources;<br>Teaching Skills;<br>Training Opportunities;<br>Collaboration;<br>Financial Support; | College internal support;<br>Social Support;<br>Educational directors support;<br>Professional identity; |

Table 4.15 The Code-Category-Concept Analysis (Cont.)

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Category                                                                                                                               | Concept                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| workshops,<br>Specialized training every semester, Winter and summer training workshops,<br>Personalized professional development plans; Professional Competence Development (5)<br>Boost our professional competence,<br>Promote the professional competence of instructors,<br>Enhancing professional competence;<br>Teaching Skills (4)<br>Improving our teaching skills,<br>Enhancing our teaching skills,<br>Teaching skills and subject matter expertise,<br>Teaching capabilities;<br>Educational Resources (3)<br>More learning materials,<br>Access to advanced educational resources and materials,<br>Comprehensive online library of educational resources;<br>Collaboration (3)<br>Experience sharing,<br>Collaboration among instructors,<br>Cross-generational learning,<br>Peer-to-peer learning;<br>Financial Support (3)<br>Financial support is crucial,<br>Funding for research or publishing,<br>Funding for additional study and training, | Innovation;<br>Mentoring;<br>Recognition and Rewards;<br>Research More;<br>Communication, Feedback;<br>Incentives;<br>Work Atmosphere; | Collaboration of different Systems. |

Table 4.15 The Code-Category-Concept Analysis (Cont.)

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Category | Concept |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|
| Stable financial support;<br>Innovation (2)<br>More relaxed and innovative teaching and research environment, Fostering a supportive work atmosphere;<br>Mentoring (2)<br>Targeted mentoring programs, New teachers are paired with mentors;<br>Recognition and Rewards(2)<br>Acknowledging and rewarding excellent teaching and research, Establishing honor and recognition mechanisms;<br>Research (2)<br>Funding for research and development,<br>Doing deeper research, Research collaborations;<br>Communication and Feedback (2)<br>Regular communication and feedback mechanisms, Timely feedback and personalized improvement plans;<br>Incentives (2)<br>Incentives for research and teaching innovation, Policies that support and reward continuous learning and improvement;<br>Work Atmosphere (2)<br>Cultivating a supportive work atmosphere, Supportive community of EFL instructors. |          |         |

#### 4.2.2.1 Private College Internal Support

Speaking on internal support from their respective colleges, those administrators noted how important it is to have sufficient support internally to maintain their professional competence.

The following interviewed data point out to the internal support that could help EFL instructors improve their professional competence development.

“In Our college, it has taken some important measures to boost our professional competence development, like organizing internal training, inviting experts for academic exchanges, and encouraging teachers to attend teaching seminars. These have sort of helped improve our teaching skills and educational philosophy. For me, attending those seminars and exchanging ideas with peers has been really helpful. It keeps me updated on the latest teaching methods and concepts, which is great for improving my own teaching competence.” (Participant 1, personal communication, July 28, 2024)

“Our college has implemented several key measures to enhance the professional competence of EFL instructors. Firstly, we organize regular training sessions and workshops, focusing on updating teaching methodologies and educational technologies. These sessions are conducted by experts in the field, providing us with valuable insights and practical tips. Secondly, we encourage and support teachers to participate in conferences and seminars, allowing them to network with peers and learn from best practices across the globe. Among these, I find the workshops and conferences particularly helpful as they provide a platform for exchange of ideas and learning from experienced teachers.” (Participant 3, personal communication, July 28, 2024)

“I believe that to further promote the professional development of EFL instructors, there is a need for more targeted mentoring programs. These could pair experienced teachers with newcomers, providing guidance and support in teaching practices. Additionally, access to advanced educational

resources and materials would be beneficial, especially those that are aligned with current trends and methodologies in English language teaching.” (Participant 5, personal communication, July 28, 2024)

“Apart from personal efforts, I believe the college should provide access to a comprehensive online library of educational resources, grant opportunities for sabbatical leaves for research and development, and establish a clear career progression path. Additionally, fostering a supportive community of instructors where we can exchange experiences and learn from each other would significantly facilitate professional competence development.” (Participant 6, personal communication, July 28, 2024).

“Our college places great emphasis on teachers' professional development. We regularly hold teaching and research meetings, as well as winter and summer training workshops, to introduce the latest educational concepts and techniques. These activities have significantly enhanced our teaching competence by broadening our knowledge and exposing us to advanced teaching methods. In particular, the summer and winter training workshops have allowed me to delve deeply into cutting-edge educational theories, which has greatly fueled my professional growth. Furthermore, the specialized training courses offered by our college, which are closely tied to teaching practices, have effectively elevated our instructional proficiency. All these initiatives combined have formed a solid foundation for my professional development.” (Participant 8, personal communication, July 28, 2024)

“Our college attaches great importance to teachers' professional competence development. We organize specialized training every semester, inviting experts to share cutting-edge educational concepts. Regular collective teaching and research activities are also conducted, along with support for national and provincial training programs. Participating in these, as well as teaching competitions, has significantly enhanced my teaching skills and research abilities. Personally, attending top-tier training and engaging in

collective research have been most helpful, broadening my professional horizons and providing instant feedback for improvement.” (Participant 10, personal communication, July 28, 2024)

#### 4.2.2.2 Social Support

The administrators also talked about social support. Social support mainly comes from the other peer colleges, family and friends. Social support can increase their professional identity, hence stimulate their willingness and provide more opportunities to strengthen their professional competence.

The following data demonstrate that social support has a positive effect on professional competence development of EFL instructors.

“To further boost teachers' professional development, I believe enhancing exchanges with peer institutions and setting up mutual visits among teachers is crucial. Establishing corporate learning bases for deeper college-enterprise integration is also vital, providing practical platforms. Additionally, more opportunities for professional certification exams and support for academic advancement are indispensable.” (Participant 2, personal communication, July 28, 2024)

“My career as an EFL instructor is highly respected among my peers and family. They recognize the importance of language education in today's globalized world and appreciate the efforts I put into enhancing my students' language skills. My friends and family often express their admiration for my dedication and commitment to teaching, hence I would try my best to improve my professional competence.” (Participant 3, personal communication, July 28, 2024)

“My friends, family, and neighbors perceive my career as respected and fulfilling. They recognize the significance of education and the pivotal role EFL instructors play in facilitating cross-cultural communication. Living in Chengdu, a city with a rich educational background, further enhances the

prestige of my profession and makes it even more satisfying.” (Participant 3, personal communication, July 28, 2024)

“My family, friends, and neighbors generally hold high respect for my profession. They acknowledge that teaching, while seemingly effortless, is actually filled with challenges and makes significant societal contributions. Their appreciation for my dedication to educating and nurturing students fills me with pride and motivates me to keep striving forward and enhance my capabilities.” (Participant 6, personal communication, July 28, 2024)

#### 4.2.2.3 Educational Directors Support

When talked about the professional competence development of EFL instructors, they also mentioned educational directors support. The support includes relevant policy, enough fund etc. The support of educational directors has very positive impact on professional competence development of EFL instructors.

The following interview data point out the positive effect of educational directors.

“Our educational directors have actively promoted teachers' professional development through measures like formulating development policies, organizing various training programs, and establishing honor and recognition mechanisms. These efforts have to some extent facilitated our professional growth. However, there are still issues like limited training coverage and incentives skewed towards high-performing public colleges. We need to work together to explore more equitable and effective pathways for teachers' professional development.” (Participant 6, personal communication, July 28, 2024)

“The educational directors have arranged regular training programs and promoted collaboration among instructors. However, there are certain challenges, such as limited funding for extensive professional development

courses and difficulties in scheduling training sessions that accommodate all instructors' schedules. Nonetheless, the directors remain committed to supporting the professional advancement of EFL instructors.” (Participant 7, personal communication, July 28, 2024)

“Our educational directors organizes regular open classes and interdisciplinary teaching and research activities, fostering experience sharing and idea exchanges among teachers. However, scheduling conflicts limit participation in open classes, reducing coverage. While interdisciplinary collaboration is novel, further deepening of cooperation is needed.” (Participant 8, personal communication, July 28, 2024)

“The educational directors have taken several initiatives for the professional development of EFL instructors. They regularly organize internal and external training programs, focusing on enhancing teaching skills and keeping us updated with the latest teaching practices. However, one of the main challenges we face is the limited availability of resources, which sometimes restricts the scope and depth of these training. The incentives of educational directors provide also stimulate our willingness to develop our professional competence.” (Participant 9, personal communication, July 28, 2024)

#### 4.2.2.4 Professional Identity

The administrators from those private colleges also talked about professional identity, which includes: professional value, professional sense of belonging and professional efficacy. These factors also have positive influence on professional competence development through adequate professional competence development support from private colleges, social support and educational directors support.

The following interviewed data show positive effect of professional identity through various supports.

“As an EFL instructor at a private college, I've found immense satisfaction and a strong professional sense of belonging in my role. The recognition and support from my family, friends, and society have been a huge morale booster, making me deeply appreciate the teaching profession. This sense of fulfillment has significantly reduced any feelings of professional burnout, and instead, fueled my desire to actively enhance my professional competence. I'm constantly seeking ways to improve, not just for the sake of my career, but also for the benefit of my students. Teaching is not just a job for me; it's a calling that I'm passionate about, and I'm grateful for the encouragement I've received that keeps me motivated and engaged in this rewarding profession.” (Participant 2, personal communication, July 28, 2024)

“My profession is largely met with respect from those around me, including friends, family, and neighbors. They recognize its societal value and contribution. Personally, I cherish my career as it fulfills my sense of purpose and allows me to positively impact others through diligent work, fostering a profound sense of accomplishment and pride. My loved ones appreciate the challenges and dedication inherent in my profession, acknowledging my efforts and achievements.” (Participant 5, personal communication, July 28, 2024)

“As an EFL instructor at a private college, I've discovered a deep passion for teaching, largely thanks to the incredible support I've received from my family and, importantly, the educational directors. Their backing, especially through favorable policies and the organization of provincial-level events, has been a game-changer. It's not just about the practical help; it's about feeling valued and recognized. This support has given me a strong professional sense of belonging and made me truly appreciate the teaching profession. As a result, any feelings of professional burnout have significantly diminished. I'm now more motivated than ever to actively enhance my professional competence, knowing that I have a solid foundation and the encouragement of the educational authorities behind me. Their support is a huge morale

booster, and it's inspiring me to be the best teacher I can be.” (Participant 7, personal communication, July 28, 2024)

#### 4.3.2.5 Collaborations of Different systems

In the interview, these administrators talked about the collaboration of private college, society and educational directors. The cooperation among them provide positive atmosphere to the professional competence development of EFL instructors and formulate a positive ecosystem.

The following interviewed data point out to the collaboration of different levels could help the professional competence development of EFL instructors.

“EFL instructors, private college, and educational directors form an interdependent ecosystem. Teachers execute educational strategies, nurturing knowledge, skills, and character. Schools serve as supportive platforms, offering resources and environments for teaching. Educational directors guide policy, resource allocation, and quality assurance, fostering teacher growth and educational excellence. Collaboration, mutual understanding, and supervision facilitate holistic educational progress.” (Participant 2, personal communication, July 28, 2024)

“As an EFL instructor in a private college, I believe in establishing a tripartite coordination mechanism. Teachers should actively engage in professional development, colleges should provide targeted resources and policies, while educational directors should guide and oversee. Regular communication, feedback, and evaluation will ensure measures align with teachers' needs, jointly propelling professional competence development to new heights.” (Participant 6, personal communication, July 28, 2024)

“As an EFL instructor leader in a private college, I firmly believe that close collaboration among teachers, colleges, and educational directors holds the key to enhancing teachers' professional development. We must jointly establish

clear professional development goals to ensure alignment and clarity for each teacher's growth path. Colleges should establish diverse development platforms, providing resources and support. Meanwhile, educational directors should formulate effective policies to guide and promote teachers' growth. Enhanced communication and feedback mechanisms should be in place to share successes and address challenges collaboratively. Through such concerted efforts, we can more effectively promote teachers' professional development, elevate teaching quality, and collectively contribute to the advancement of education.” (Participant 7, personal communication, July 28, 2024)

“In my view, teachers, colleges and educational directors play indispensable roles in advancing teachers' professional development. Teachers are the primary actors and direct beneficiaries of this process. Colleges serve as the primary platforms and supporting forces. While educational administrative departments are responsible for formulating policies, providing guidance, and overseeing the process. These three entities interdependent on each other, mutually promote, and jointly achieve success. Only by working closely and harmoniously can we form a powerful synergy to drive teachers' professional development forward continuously.” (Participant 8, personal communication, July 28, 2024)

“As a responsible leader, I'm acutely aware of the paramount importance of catering to the needs of front line EFL instructors. Colleges and education directors must transcend mere oversight roles and delve deeper into addressing teachers' genuine requirements. We must devise a holistic support system that fosters growth through encouragement and responsiveness. The authorities should lead the way with forward-thinking policies, colleges should execute these policies with precision, and teachers should embrace their roles as active contributors, continually exploring and innovating to elevate teaching standards. This tripartite collaboration forges a robust ecosystem where policies resonate, teachers professional development, and the quality of education soars.” (Participant 10, personal communication, July 28, 2024)

### 4.2.3 Summary of Qualitative Analysis

Based on the qualitative data, it could be summarized as follow. The development of professional competence among English as a Foreign Language (EFL) instructors at private colleges is significantly bolstered by a trifecta of support: internal college initiatives, societal recognition, and guidance from educational directors. The colleges themselves play a pivotal role by organizing training programs, inviting experts for academic exchanges, and encouraging participation in conferences and seminars. These efforts not only enhance teaching skills but also foster a strong professional sense of belonging, thereby mitigating burnout and igniting a passion for continuous improvement.

Social support, emanating from peers, families, and friends, reinforces EFL instructors' professional identity. This recognition and admiration from loved ones and colleagues instills pride in their profession, which in turn motivates them to strive for excellence. Furthermore, the support of educational directors through policy formulation, funding allocations, and the organization of training programs creates an environment conducive to professional growth. These measures directly contribute to EFL instructors' professional value, efficacy, and sense of belonging, ultimately fueling their desire to elevate their competencies.

The collaboration between private colleges, society, and educational directors fosters a supportive ecosystem that nurtures the professional development of EFL instructors. This tripartite partnership ensures that resources are aligned with teachers' needs, and policies are implemented effectively. As a result, EFL instructors are empowered to take ownership of their growth, actively seeking opportunities for professional advancement, and contributing to the overall improvement of education standards. In conclusion, the comprehensive support system, coupled with a strong sense of professional identity and belonging, propels EFL instructors towards excellence, ensuring the continued enhancement of their professional competence.

### 4.3 Findings to the Research Questions

This part includes both quantitative and qualitative data, which complement each other in providing a holistic understanding of the study. This section compared and contrasted the findings from both types of data, so to answer each research questions from both quantitative and qualitative perspective.

#### 4.3.1 Findings to Research Questions

##### 4.3.1.1 Findings to the Main Research Question

College internal support, social support, and educational directors' support significantly impact EFL instructors' professional competence development and identity in private colleges. According to the quantitative and qualitative data analysis in Chapter 4, internal support from colleges, such as regular training programs, expert workshops, and access to advanced educational resources, plays a pivotal role in enhancing EFL instructors' teaching and research competences. These initiatives not only improve their professional skills but also foster a strong sense of professional belonging, which is crucial for mitigating burnout and maintaining motivation.

Social support from peers, family, and the community reinforces instructors' professional identity by providing emotional and motivational support. The admiration and respect from loved ones and colleagues instill pride in their profession, motivating them to strive for excellence. This sense of belonging and recognition plays an essential mediating role in the relationship between support factors and professional competence.

Educational directors' support, including policy formulation, funding, and recognition mechanisms, is crucial for providing direction and resources for EFL instructors' professional development. However, the data revealed that this support is currently the weakest among the three types. To optimize these support systems according to ecological education theory, it is essential to foster collaboration between private colleges, society, and educational directors. By creating a supportive

ecosystem that nurtures professional growth, these entities can ensure that resources are aligned with instructors' needs and policies are implemented effectively.

To anticipate future changes and interactions at different ecosystem levels, it is important to adopt a dynamic and adaptive approach. Regularly assessing the effectiveness of support initiatives and adjusting them based on feedback from instructors can ensure their relevance and impact. Additionally, fostering a culture of continuous learning and professional development within private colleges can help EFL instructors stay updated with the latest educational trends and technologies. By optimizing these support systems and fostering collaboration, private colleges can effectively enhance EFL instructors' professional competence and identity, contributing to the overall improvement of education standards.

#### 4.3.1.2 Findings to Research Question 1

From a quantitative perspective, the data revealed significant correlations between these forms of support and the enhancement of EFL instructors' professional competence. Specifically, statistical analyses showed that colleges providing robust internal support, such as access to professional development programs, mentorship opportunities, and resources for curriculum innovation, had instructors who demonstrated higher levels of teaching efficacy and linguistic competence. Similarly, social support in the form of peer collaboration, networking events, and a supportive campus culture was positively associated with instructors' ability to adapt to new teaching methodologies and technologies. Furthermore, educational directors who actively engaged in career guidance, performance evaluations, and feedback sessions contributed to instructors' overall professional growth, as evidenced by improved student learning outcomes and instructor satisfaction rates.

Qualitatively, the interviews conducted with EFL instructors highlighted the nuanced ways in which these supports interacted to influence their professional development. Many instructors emphasized the importance of having a mentor or supervisor within the college who could provide tailored guidance and encouragement. They noted that such individualized support helped them navigate the

challenges of teaching in a private college setting and fostered a sense of belonging and efficacy. Additionally, instructors appreciated opportunities for collaboration with colleagues, which allowed them to share best practices, receive constructive criticism, and co-develop innovative teaching materials. The presence of a supportive social network was also crucial for mitigating the isolation often felt by EFL instructors, enabling them to maintain motivation and enthusiasm for their work. Overall, the integration of quantitative and qualitative data suggests that a comprehensive approach to support, encompassing both college-internal initiatives and interpersonal relationships, is essential for fostering the professional competence development of EFL instructors in private colleges.

#### 4.3.1.3 Findings to Research Question 2

The quantitative analysis reveals a significant correlation between the various support factors and EFL instructors' professional competence. Specifically, private college internal support, social support, and educational directors' support are all positively associated with EFL instructors' professional competence. These findings suggest that when instructors receive adequate support from their colleges, society, and educational directors, they tend to exhibit higher levels of professional competence. Furthermore, the statistical analysis indicates that professional identity acts as a mediator in this relationship. In other words, the support received by instructors influences their professional identity, which in turn affects their professional competence. This mediation effect underscores the importance of fostering a strong professional identity among EFL instructors, as it appears to be a key factor in enhancing their professional competence.

The qualitative data provides insights into how professional identity mediates the relationship between support factors and professional competence. Through interviews and observations, it was found that instructors who feel supported by their colleges, society, and educational directors tend to have a more positive and robust professional identity. They are more likely to see themselves as valuable and effective educators, which in turn motivates them to continuously improve their professional competence. Conversely, instructors who lack support often struggle with

their professional identity, leading to a decrease in motivation and professional competence. These qualitative findings further support the quantitative analysis, confirming that professional identity plays a crucial role in mediating the relationship between support factors and EFL instructors' professional competence.

#### 4.3.1.4 Findings to Research Question 3

From a quantitative perspective, the structural equation modeling analysis revealed that support from private colleges, social support, and educational directors' support all positively impact EFL instructors' professional competence. Notably, these support factors mediated through professional identity components, such as professional values, sense of belonging, and professional efficacy. The mediating effects ranged from 20.32% to 47.24%, depending on the type of support, demonstrating the crucial role of professional identity in shaping instructors' professional competence.

Qualitatively, the interviews provided insights into how these support factors foster a sense of professional identity among EFL instructors, which in turn drives their professional competence development. Private college support, through initiatives like regular training and mentorship, strengthened instructors' professional values and sense of belonging, fostering a stronger commitment to professional growth. Social support from family, peers, and the community reinforced instructors' professional identity by recognizing and respecting their role, motivating them to continuously improve. Educational directors' guidance, including policy formulation and funding, directly contributed to enhancing instructors' professional efficacy and competence. These findings highlight the dynamic interplay between support factors, professional identity, and professional competence across different ecosystem levels, underscoring the importance of a holistic approach to fostering EFL instructors' professional development.

#### 4.3.1.5 Findings to Research Question 4

Quantitatively, the analysis reveals that private colleges should establish comprehensive internal support systems tailored to EFL instructors' needs, including continuous professional development opportunities, mentorship programs, and

access to advanced educational resources. Educational directors should formulate supportive policies and allocate adequate funding to ensure equitable access to these resources. Society's recognition and respect for the teaching profession play a significant role in bolstering EFL instructors' professional identity. Public acknowledgment, certificates, and promotions can motivate instructors to strive for excellence.

Qualitatively, the interviews highlights that a collaborative ecosystem among private colleges, society, and educational directors is crucial. This involves regular communication, feedback mechanisms, and joint initiatives to align policies and resources with instructors' needs. Such collaboration fosters a supportive environment that recognizes and rewards professional growth. By fostering a sense of belonging and professional value through internal college support, social recognition, and educational director guidance, EFL instructors' professional identity is strengthened. This, in turn, enhances their motivation to continuously improve their language, teaching, and research competencies.

In conclusion, to optimize support and enhance EFL instructors' professional identity and competence, a holistic approach that integrates quantitative and qualitative insights is essential. Private colleges, society, and educational directors must collaborate to create a supportive ecosystem that provides comprehensive resources, recognition, and policies tailored to instructors' needs. This ecosystem, grounded in ecological education theory, will nurture a strong professional identity among EFL instructors, ultimately driving their continued professional growth and competence development.

#### 4.3.1.6 Findings to Research Question 5

From a quantitative perspective, statistical analyses have revealed significant correlations and regression patterns between various supporting factors (such as educational background, professional development opportunities, and institutional support) and EFL instructors' professional competence. As educational policies and practices evolve globally, these factors are likely to undergo shifts. For instance, increased funding for teacher training and the adoption of advanced

technology in education may enhance instructors' access to professional development opportunities. Consequently, their professional competence could improve, mediated by factors like their ability to integrate technology into teaching and increased exposure to diverse pedagogical approaches. Moreover, as institutions recognize the importance of instructor competence, they may increase support through mentorships, peer collaborations, and resource provision, further amplifying the positive influence on EFL instructors' skills.

Qualitative insights from interviews and observations suggest that instructors' perceptions and experiences of these factors also play a crucial role. As educators adapt to new teaching environments and methodologies, their subjective interpretations of support and mediating variables will evolve. For example, if instructors perceive new educational technologies as helpful and user-friendly, they are more likely to integrate them into their teaching, thereby enhancing their competence. Conversely, if they find these technologies challenging or unnecessary, their influence on professional competence may be muted. Additionally, changes in societal attitudes towards education and the status of EFL instructors could affect their motivation and commitment, which in turn could mediate the impact of supporting factors on their professional growth. Thus, future changes in the influence of these factors will not only be driven by objective shifts in resources and policies but also by instructors' evolving attitudes and capabilities in navigating an increasingly complex educational landscape.

#### **4.3.2 Conclusion**

In conclusion, this section compares and contrasts quantitative and qualitative data to provide a holistic understanding of the study's findings. Both types of data consistently show that college internal support, social support, and educational directors' support significantly impact EFL instructors' professional competence development and identity in private colleges. Internal support initiatives, such as training programs and access to resources, enhance teaching and research competences while fostering a sense of belonging. Social support from peers and family reinforces

professional identity, instilling pride and motivation. Educational directors' support, through policy and funding, provides direction and resources but is currently the weakest link. To optimize these support systems, collaboration among private colleges, society, and educational directors is crucial.

Furthermore, the quantitative data offers statistical significance and correlation coefficients, while the qualitative data provides deeper insights into instructors' experiences and perceptions. The qualitative interviews reveal emotional and motivational aspects that drive instructors' professional development. Both data types confirm the mediating role of professional identity in the relationship between support factors and professional competence. To anticipate future changes, a dynamic and adaptive approach is recommended, involving regular assessment and adjustment of support initiatives based on instructor feedback. Fostering a culture of continuous learning within private colleges can help EFL instructors stay updated with educational trends and technology, ultimately enhancing their professional competence.

#### **4.4 Summary**

This chapter presents the results of the data analysis conducted on both quantitative and qualitative data collected from EFL instructors in private colleges in Sichuan Province, China. The purpose of the analysis was to answer six research questions focused on the impact of college internal support, social support, and educational directors' support on EFL instructors' professional competence development and identity.

The quantitative data analysis involved the collection of 436 valid questionnaires from EFL instructors. Descriptive statistics revealed that the sample was predominantly female, married, middle-aged, with varying levels of work experience and educational backgrounds. Reliability and validity tests confirmed the consistency and accuracy of the measurement scales used. Descriptive analysis showed that private college internal support was the strongest, followed by social support, with educational directors' support being the weakest. Correlation analysis

indicated significant positive correlations between all support factors and professional competence. Structural equation modeling further confirmed these relationships, revealing that professional identity mediated the effects of support on professional competence.

The qualitative data analysis involved interviews with 10 administrators from private colleges. The interviews provided insights into how support factors influenced instructors' professional development. Administrators emphasized the importance of internal college initiatives such as training programs, expert workshops, and access to resources. Social support from peers, family, and community was also recognized for its role in reinforcing instructors' professional identity. Educational directors' support, though weaker, was still seen as crucial for providing direction and resources.

Overall, both quantitative and qualitative data consistently showed that college internal support, social support, and educational directors' support significantly impact EFL instructors' professional competence development and identity. Internal support initiatives enhanced teaching and research competences while fostering a sense of belonging. Social support instilled pride and motivation, while educational directors' support provided direction and resources. However, educational directors' support was identified as the weakest link, highlighting the need for improvement.

To optimize these support systems, the study recommends fostering collaboration between private colleges, society, and educational directors. This involves creating a supportive ecosystem that nurtures professional growth by aligning resources and policies with instructors' needs. Regular assessment and adjustment of support initiatives based on instructor feedback is also suggested to ensure their relevance and impact. Ultimately, a holistic approach that integrates both quantitative and qualitative insights is essential for enhancing EFL instructors' professional competence and identity, contributing to the overall improvement of education standards.

## **CHAPTER 5**

### **CONCLUSION, DISCUSSION AND RECOMMENDATIONS**

This chapter offers recommendations for the professional competence development of EFL instructors from internal support at private colleges, external support from the community, and support from educational directors. It also concludes the data analysis results and discusses the findings. The conclusion, discussion, and recommendations sections make up the three sections of this chapter.

The purpose of this study is to examine the various supports from various systems, professional efficacy, professional value, and professional sense of belonging as meditative variables impacting the growth of professional competence in EFL instructors in Sichuan Province's private colleges. The results of this study may be utilized to provide a set of guidelines that will serve as a guide to inspire EFL instructors to advance their professional competence.

The following five objectives are included in the study's design:

- 1) To investigate the specific mechanisms and paths through which college internal support, social support, and educational directors' support impact the professional competence development of EFL instructors in private colleges.
- 2) To explore the mediating role of professional identity in the relationship between support factors and EFL instructors' professional competence development in private colleges.
- 3) To optimize the support of private colleges, society, and educational directors based on ecological education theory, aiming to enhance EFL instructors' professional identity and competence while considering their future changes and interactions at different ecosystem levels.

The research questions are as follows

#### The Main Research Question

How do college internal support, social support, and educational directors' support affect EFL instructors' professional competence development and identity in private colleges, and how can these be optimized according to ecological education theory, considering their future changes and interactions at different ecosystem levels?

#### Subsidiary Questions

- 1) How do college internal support, social support and educational directors support concretely affect the professional competence development of EFL instructors in private colleges?
- 2) Does professional identity play a mediating role among private college internal support, social support, educational directors support and EFL instructors' professional competence?
- 3) How do these supporting factors interact with professional identity and thus affect EFL instructors' professional competence, in different ecosystem levels?
- 4) How to enhance the support provided by private colleges, society, and educational directors based on ecological education theory, in order to boost the professional identity and proficiency of EFL instructors?
- 5) Will the influence of these supporting factors and mediating variables on EFL instructors' professional competence change in the future?

## 5.1 Conclusion

### 5.1.1 Responses to the Main Research Question

Based on the data analysis presented in Chapter Four of the document, college internal support, social support, and educational directors' support significantly impact EFL instructors' professional competence development and identity in private colleges.

Quantitatively, the results indicate that instructors who receive stronger support in these areas tend to exhibit higher levels of professional competence and a more positive professional identity. Qualitatively, instructors reported that such support fosters a conducive environment for professional growth, enhances their teaching efficacy, and reinforces their sense of belonging and purpose within the institution.

According to ecological education theory, to optimize these support systems, it is crucial to consider their future changes and interactions at different ecosystem levels. At the micro-level, colleges should establish comprehensive support networks that include mentorship programs, peer collaboration opportunities, and access to professional development resources. At the meso-level, fostering a supportive and inclusive campus culture is essential, where instructors feel valued and encouraged to innovate and take risks in their teaching. Additionally, strengthening ties with external organizations and communities can provide instructors with broader social support and enhance their professional networks.

At the macro-level, educational policies and regulations should be designed to support the professional development of EFL instructors in private colleges. This includes providing funding for training and research initiatives, as well as recognizing and rewarding excellence in teaching and leadership. By aligning these support systems with ecological education theory, private colleges can create a dynamic and responsive ecosystem that nurtures the professional growth and identity of EFL instructors, ultimately contributing to improved educational outcomes for students.

### **5.1.2 Responses to Research Question 1**

Both quantitative and qualitative data reveal that college internal support, social support, and educational directors' support significantly contribute to the professional competence development of EFL instructors in private colleges. From a quantitative perspective, structural equation modeling demonstrated that college internal support and social support have direct positive effects on EFL instructors' professional competence development. Educational directors' support also exerts a

positive influence. Qualitatively, administrators emphasized the value of internal initiatives such as training programs, expert workshops, and access to educational resources in enhancing teaching skills and knowledge. Social support from family, friends, and peers fostered a sense of professional identity and belonging, motivating instructors to continuously improve. Educational directors' guidance through policy formulation, funding, and recognition mechanisms further bolstered professional identity and competence.

### **5.1.3 Responses to Research Question 2**

professional identity plays a mediating role among private college internal support, social support, educational directors' support, and EFL instructors' professional competence. Quantitative analysis showed that professional identity had a substantial mediating effect on the relationship between these support factors and EFL instructors' professional competence. Specifically, internal support (20.32%-33.55%), social support (33.77%-47.24%), and educational directors' support (33.68%-44.83%) all positively influenced professional identity, which in turn significantly impacted professional competence. Qualitative interviews echoed this, as instructors mentioned how recognition and support from their colleges, peers, and educational directors bolstered their professional identity, driving them to enhance their language, teaching and research competencies.

### **5.1.4 Responses to Research Question 3**

Supporting factors interact with professional identity at various ecosystem levels to impact EFL instructors' professional competence. At the college level, internal support mechanisms, such as training programs and mentorship, foster a sense of belonging and recognition, enhancing professional efficacy. This, in turn, motivates instructors to actively seek professional development opportunities, improving their competence. Social support at the community level reinforces instructors' professional value, boosting efficacy and willingness to excel. Educational directors' support, operating at the systemic level, provides policy guidance, funding, and recognition,

directly enhancing efficacy and fostering a conducive environment for competence development. These levels are interconnected, with efficacy serving as a bridge between support and professional competence development.

#### **5.1.5 Responses to Research Question 4**

To optimize support based on ecological education theory, private colleges should establish comprehensive internal support systems tailored to EFL instructors' needs, including ongoing professional development opportunities, mentorship programs, and access to educational resources. Society can contribute by fostering a positive image of the teaching profession, recognizing and valuing EFL instructors' contributions. Educational directors must formulate supportive policies and allocate adequate funding for professional development initiatives, ensuring equitable access for all instructors. Collaboration among colleges, society, and educational directors is crucial, creating a supportive ecosystem that recognizes and rewards professional growth. Regular evaluations and feedback mechanisms should be implemented to continuously refine support structures, ultimately enhancing professional identity and competence.

#### **5.1.6 Responses to Research Question 5**

The influence of supporting factors and mediating variables on EFL instructors' professional competence development is likely to evolve in the future. Technological advancements may transform internal support mechanisms, enabling more flexible and accessible professional development opportunities. Shifts in societal attitudes and values may alter the perception of teaching as a profession, potentially enhancing or diminishing social support. Educational policies and priorities may change, affecting educational directors' support and funding allocations. These changes could directly impact the effectiveness of support mechanisms and mediating variables like professional identity. Therefore, continuous monitoring and adaptation of support structures are crucial to maintain their relevance and impact on EFL instructors' professional competence development in the face of future dynamics.

## 5.2 Discussion

The discussion section delves into the multifaceted factors influencing the professional development of English as a Foreign Language (EFL) instructors in private colleges, utilizing both quantitative and qualitative data. Central to this analysis is the impact of private college support, social support, and educational directors' support on EFL instructors' professional values, sense of belonging, and efficacy, which are pivotal in shaping their professional competence development. Furthermore, demographic variables are integrated to provide a more comprehensive understanding of these relationships.

### Private College Support

Quantitative findings reveal that private college support plays a significant role in enhancing EFL instructors' professional competence. With a mean score of 3.36 out of 5, indicating a moderate level of support, there is still scope for improvement. The majority of the sample, comprising middle-aged, married, female instructors with master's degrees (Qi et al., 2021), emphasized that this support strengthens their professional values and sense of belonging, vital for their overall professional competence (Chen et al., 2020).

To further bolster private college support, targeted measures are essential. Firstly, comprehensive training programs tailored to EFL instructors' needs should be introduced, focusing on contemporary teaching methodologies, educational technologies, and research skills. Engaging experts for workshops and academic exchanges can significantly enrich these programs (Li & Liu, 2022). Secondly, mentorship programs pairing experienced instructors with newcomers can provide invaluable guidance and support, fostering a sense of belonging and continuous professional growth (Burhan et al., 2024). Lastly, financial support for professional development is crucial, including funding for conferences, workshops, and sabbatical leaves for research and development, to encourage scholarly activities and enhance overall professional competence (Wang & Chu, 2023).

### Social Support

Social support, emanating from peers, family, and the community, emerges as a significant factor positively influencing EFL instructors' professional competence. Recognition and admiration from one's social network bolster instructors' professional values and sense of belonging, motivating them to continually improve their language application, teaching, and research capabilities (Karousiou, 2019).

To enhance social support, private colleges can facilitate networking opportunities through professional seminars and workshops, promoting the exchange of ideas and best practices (Castillo-Cuesta et al., 2022). Additionally, encouraging community engagement through language education projects can increase instructors' visibility and foster a sense of professional pride (Fathi et al., 2023). Public recognition of EFL instructors' accomplishments through awards, certificates, and promotions further reinforces their professional values and efficacy (Svendsen, 2020).

### Educational Directors' Support

Educational directors' support is crucial in shaping EFL instructors' professional development. Their guidance and resources significantly influence instructors' professional values, sense of belonging, and efficacy, enhancing their professional competence. However, with a mean score of 3.16 out of 5, this support lags behind the other two types, indicating room for improvement.

To strengthen educational directors' support, comprehensive development policies aligned with EFL instructors' needs and aspirations are necessary. These policies should prioritize access to quality resources, training programs, and growth opportunities (Akdere & Egan, 2020). A system of recognition and rewards for outstanding teaching and research efforts, including monetary incentives, promotions, and public recognition, can motivate instructors to excel (Alam & Asmawi, 2023). Regular feedback and personalized improvement plans from educational directors will

foster a sense of being valued and supported, aiding in instructors' professional growth (Zhang et al., 2021).

### Professional Identity

The study underscores the interconnectedness of professional values, sense of belonging, and efficacy in shaping EFL instructors' professional identities. These identity components positively influence professional competence development, as evidenced by high correlation coefficients.

To improve EFL instructors' professional identity, self-reflection exercises can help them identify strengths, weaknesses, and aspirations, fostering a clearer understanding of their professional identity and setting growth goals (Chen et al., 2020). Cultivating a shared vision and values among EFL instructors, educational directors, and private colleges can foster unity and purpose, motivating instructors towards common goals (Kirby & Thomas, 2022). Lastly, creating a positive and supportive work environment that values and respects instructors' contributions through open communication, recognition of achievements, and opportunities for collaboration and networking can significantly enhance their professional identity (Rusilowati & Wahyudi, 2020).

### Collaboration from Different Systems

Collaboration between private colleges, educational directors, and the broader education system is crucial for EFL instructors' professional development. This collaboration fosters a supportive ecosystem providing resources, policies, and recognition, essential for enhancing professional competence.

To stimulate collaboration, inter-institutional cooperation between private colleges can share resources, best practices, and professional development opportunities, broadening instructors' support networks (Castillo-Cuesta et al., 2022). Aligning policies and initiatives between private colleges and educational directors

ensures a seamless support system, eliminating redundancies and promoting efficient resource allocation (Khasawneh, 2024). Partnerships between private colleges, industry, and community organizations provide practical platforms for EFL instructors to apply their skills, enhancing their professional competence and fostering a stronger sense of purpose and belonging (Ulla & Perales, 2021).

In conclusion, the study highlights the complexity of variables affecting EFL instructors' professional development in private colleges. By combining quantitative and qualitative data, actionable suggestions are provided to improve social support, professional identity, private college support, educational directors' support, and collaboration across systems. Implementing these suggestions has the potential to significantly enhance EFL instructors' professional competence and overall well-being.

### **5.3 Recommendation**

In this part, recommendations for further study and applications of the results are covered.

#### **5.3.1 Recommendation for Future Research**

In order to fully understand the dynamic growth of EFL teachers' professional competence over an extended period of time, future studies should conduct longitudinal studies. This methodology will reveal long-term patterns and the enduring effects of supportive interventions, offering important new perspectives on the viability of ongoing initiatives. Furthermore, in-depth qualitative case studies focused on certain private colleges or areas would provide nuanced knowledge of the contextual elements impacting the career development of EFL instructors. These investigations might examine how organizational cultures, management philosophies, and methods for allocating resources influence teachers' career development paths, advancing a more comprehensive understanding of the discipline.

Comparative studies between various kinds of educational organizations, such as public vs. private colleges, represent another potential direction for future study. The creation of focused support systems will be guided by the emphasis on the particular difficulties and advantages experienced by EFL teachers in various contexts. Further studies should look at the new functions that digital tools and platforms are playing in improving support networks and increasing chances for EFL instructors to grow professionally, given how quickly technology is developing. Researchers can help modernize and improve the development of EFL instructors by investigating the possibilities of virtual cooperation, personalized learning platforms, and data-driven feedback mechanisms.

### **5.3.2 Recommendation for the Use of Findings**

The results of the study indicate that private colleges have to give top priority to creating and executing all-encompassing professional development initiatives that are customized to meet the unique requirements of instructors of EFL. These initiatives should include continuing education classes, mentorship programs that link seasoned educators with novices, and easier access to higher-level learning materials. To guarantee these programs' applicability and efficacy in supporting EFL instructors' professional development, it is imperative that they undergo frequent assessments and modifications. Private colleges may greatly improve the general standard of English language teaching by aggressively promoting their professional competence development.

Private colleges can encourage social support networks through planned events, networking opportunities, and community involvement initiatives in order to build the professional identity and sense of belonging among EFL instructors. Instructors can be greatly inspired to pursue ongoing development by celebrating their accomplishments with rewards, certificates, and public acknowledgment. A supportive environment that fosters professional development may also be created by promoting cooperation between instructors, private colleges and educational directors, and business partners. Through utilizing alliances and cooperative projects, EFL

instructors may have access to real-world settings where they can put their knowledge to use, strengthening their total professional competence and encouraging a stronger sense of dedication to their work.

### **5.3.3 Implications for Practice**

The findings of this study have significant implications for enhancing the professional competence development of EFL instructors in private colleges in Sichuan Province from an ecological education perspective. Based on the comprehensive analysis of the impact of support from private colleges, society, and educational directors, the following recommendations are offered to guide future policy formulation and professional development initiatives.

First and foremost, private colleges should prioritize the establishment of comprehensive internal support systems tailored to the unique needs of EFL instructors. This includes organizing ongoing professional development programs, mentorship schemes, and providing access to advanced educational resources. Colleges should also ensure that these initiatives are aligned with current teaching methodologies and research trends to ensure relevance and effectiveness. Financial support for instructors to attend conferences, workshops, and other professional development activities should also be prioritized. Furthermore, offering sabbatical leaves for research and development can motivate instructors to engage in scholarly activities, enhancing their overall professional competence.

Secondly, society plays a vital role in fostering a positive image of the teaching profession and recognizing the contributions of EFL instructors. Public recognition and support can significantly boost instructors' professional identity and sense of belonging, motivating them to continuously improve their language, teaching, and research competencies. Colleges can collaborate with communities, industry associations, and parents to organize events and activities that celebrate the achievements of EFL instructors. This will not only create a supportive environment but also enhance the social status and recognition of the teaching profession.

Thirdly, the support from educational directors is crucial in shaping the professional development landscape for EFL instructors in private colleges. Educational directors should formulate comprehensive policies and allocate adequate funding to ensure equitable access to professional development opportunities for all instructors. They should also establish systems for recognizing and rewarding outstanding teaching and research efforts, thereby motivating instructors to excel in their professional endeavors. Regular feedback and personalized improvement plans can further enhance instructors' self-efficacy and professional competence.

Furthermore, collaboration among private colleges, society, and educational directors is imperative to create a supportive ecosystem for EFL instructors' professional development. Inter-institutional collaboration can facilitate the sharing of resources, best practices, and professional development opportunities, providing instructors with a broader network of support. Alignment of policies and initiatives between private colleges and educational directors will ensure a seamless support system that caters to instructors' needs.

Lastly, continuous monitoring and adaptation of support structures are crucial to maintain their relevance and impact in the face of evolving educational landscapes and technological advancements. Colleges should be proactive in incorporating new technologies and methodologies into their professional development programs to ensure that instructors are equipped with the necessary skills to navigate the dynamic educational environment.

In conclusion, the findings of this study emphasized the importance of a holistic and ecosystem approach to enhancing EFL instructors' professional competence in private colleges. By addressing the various levels of support within the educational ecosystem and fostering collaboration among different stakeholders, we can create a supportive environment that fosters the continuous professional development of EFL instructors and ultimately improves the quality of English language teaching in Sichuan Province.

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**APPENDIX A**  
**RESEARCH INSTRUMENTS**

## **Instrument 1**

### **Questionnaire**

Subject: “EFL Instructors Professional Competence Development of Private Colleges in Sichuan Province, China”

Dear Participants:

This is a part of research for Doctoral Degree Program in Faculty of Education, Educational Studies, Rangsit University. Your answers would not only benefit to EFL instructors professional competence development, but also English Education in private colleges.

Explanation: The questionnaire is divided into two sections.

Section 1: Personal Status of Respondent

Section 2: Professional Competence Development of EFL Instructors in Private Colleges.

The researcher is deeply appreciated for spending time to give us useful information for EFL Instructors Professional Competence Development.

Thank you for your contribution to the questionnaire.

**Section 1: Personal Status of Respondent**

Explanation: Please check  $\checkmark$  according to an appropriate choice for you.

Your Gender:

A. Male      B. Female

Your Marriage Status:

A. Single      B. Married

Your Age:

A. 25-35      B. 36-45      C. 46-55      D. 56 and above

Your Work Experience:

A. 1-5 years      B. 6-10 years      C. 11-15 years      D. 16 years and above

Your Education:

A. Bachelor Degree      B. Master Degree      D. Doctor Degree

Your Professional Title:

A. Teaching Assistant      B. Lecturer      C. Associate Professor and Above



## Section 2: Professional Competence Development of EFL Instructors in Private Colleges.

Please check ✓ for the most appropriate choice according to your experiences. There is no right or wrong answer, check only one option for each item in the questionnaire.

Use the scale below to answer each question.

**5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 Strongly Disagree**

| <b>EFL Instructors Professional Competence Development</b>                                                                   | <b>Strongly Disagree 1</b> | <b>Disagree 2</b> | <b>Neutral 3</b> | <b>Agree 4</b> | <b>Strongly Agree 5</b> |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------|------------------|----------------|-------------------------|
| <b>Private College Support</b>                                                                                               |                            |                   |                  |                |                         |
| 1.The college will provide some promotion and learning opportunities for EFL instructors.                                    |                            |                   |                  |                |                         |
| 2.The college agrees to the reasonable request of the EFL instructors to improve the working conditions.                     |                            |                   |                  |                |                         |
| 3.When you have a problem at work, you will get help from your colleagues.                                                   |                            |                   |                  |                |                         |
| 4.The college will feel proud of your accomplishments.                                                                       |                            |                   |                  |                |                         |
| 5.The college values the opinions expressed by EFL instructors.                                                              |                            |                   |                  |                |                         |
| 6.The leadership of your college supports you to go out for teaching training and diploma improvement.                       |                            |                   |                  |                |                         |
| <b>Social Support</b>                                                                                                        |                            |                   |                  |                |                         |
| 7.The professional role of EFL instructors in private colleges is highly recognized by society.                              |                            |                   |                  |                |                         |
| 8.You feel that people respect EFL instructors in private colleges                                                           |                            |                   |                  |                |                         |
| 9.The social recognition of EFL instructors in private colleges has an impact on your career development.                    |                            |                   |                  |                |                         |
| 10.You often participate in EFL instructor education training in private colleges organized by social training institutions. |                            |                   |                  |                |                         |
| <b>Educational Directors Support</b>                                                                                         |                            |                   |                  |                |                         |
| 11.The state's existing support policy for EFL instructors in private colleges can promote your professional development.    |                            |                   |                  |                |                         |

| <b>EFL Instructors Professional Competence Development</b>                                                                                                                              | <b>Strongly Disagree 1</b> | <b>Disagree 2</b> | <b>Neutral 3</b> | <b>Agree 4</b> | <b>Strongly Agree 5</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------|------------------|----------------|-------------------------|
| 12.You think that there is no gap between the actual implementation of the existing instructor support policy in private colleges and the policy content.                               |                            |                   |                  |                |                         |
| 13.You understand the current policies on professional development of EFL instructors in private colleges.                                                                              |                            |                   |                  |                |                         |
| 14.Local education departments often organize training activities related to professional development of EFL instructors in private colleges.                                           |                            |                   |                  |                |                         |
| 15.Education directors give considerable support and understanding to the professional development of EFL instructors in private colleges.                                              |                            |                   |                  |                |                         |
| <b>Professional Values</b>                                                                                                                                                              |                            |                   |                  |                |                         |
| 16.As an EFL instructor in a private college, my work plays an important role in promoting social development.                                                                          |                            |                   |                  |                |                         |
| 17.As an EFL instructor in a private college, my work is very important to promote the growth and development of students.                                                              |                            |                   |                  |                |                         |
| 18.As an EFL instructor in a private college, engaging in teaching career can realize the value of my life.                                                                             |                            |                   |                  |                |                         |
| 19.As an EFL instructor in a private college, I can gain the respect from others.                                                                                                       |                            |                   |                  |                |                         |
| 20.As an EFL instructor in a private college, I feel very proud.                                                                                                                        |                            |                   |                  |                |                         |
| <b>Professional Sense of Belonging</b>                                                                                                                                                  |                            |                   |                  |                |                         |
| 21.I care about how other people think about EFL instructors in private colleges. When I see or hear words praising the profession of instructors, I feel a sense of happiness.         |                            |                   |                  |                |                         |
| 22.I am concerned about how others view the group of EFL instructors in private colleges. When someone attacks or accuses the group of instructors without any reason, I feel insulted. |                            |                   |                  |                |                         |
| 23.I often feel that I am a member of our college and my development is closely connected with that of our college.                                                                     |                            |                   |                  |                |                         |
| 24.I care about other people's evaluation of our college. When I see or hear the positive or negative evaluation of our college, I                                                      |                            |                   |                  |                |                         |

| <b>EFL Instructors Professional Competence Development</b>                                                                   | <b>Strongly Disagree 1</b> | <b>Disagree 2</b> | <b>Neutral 3</b> | <b>Agree 4</b> | <b>Strongly Agree 5</b> |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------|------------------|----------------|-------------------------|
| have a feeling of sharing weal and woe.                                                                                      |                            |                   |                  |                |                         |
| <b>Professional Efficacy</b>                                                                                                 |                            |                   |                  |                |                         |
| 25.I think I have the right personality, accumulation and knowledge to be an EFL instructor.                                 |                            |                   |                  |                |                         |
| 26.Judging from my present job, I am qualified for the job of an EFL instructor.                                             |                            |                   |                  |                |                         |
| 27.I am able to complete my current work as a instructor carefully and timely.                                               |                            |                   |                  |                |                         |
| 28.I am usually very confident when dealing with the job of English teacher.                                                 |                            |                   |                  |                |                         |
| <b>Language Application Competence</b>                                                                                       |                            |                   |                  |                |                         |
| 29.I am able to present English language knowledge in a clear and interesting way.                                           |                            |                   |                  |                |                         |
| 30.I can connect English language teaching to students' interests.                                                           |                            |                   |                  |                |                         |
| 31.I can use a variety of teaching activities to improve students' English listening, speaking, reading and writing ability. |                            |                   |                  |                |                         |
| 32.I am able to balance English language accuracy and fluency in classroom teaching activities.                              |                            |                   |                  |                |                         |
| 33.I can prevent students from overusing their mother tongue (Chinese) in learning English.                                  |                            |                   |                  |                |                         |
| 34.As an EFL instructor, I am fluent in oral English and have strong comprehensive English ability.                          |                            |                   |                  |                |                         |
| <b>Teaching English Competence</b>                                                                                           |                            |                   |                  |                |                         |
| 35.I am patient, polite and willing to help students acquire new English language knowledge and skills.                      |                            |                   |                  |                |                         |
| 36.I can flexibly change roles in different teaching sessions.                                                               |                            |                   |                  |                |                         |
| 37.I can flexibly use various strategies to deal with students' inappropriate behavior.                                      |                            |                   |                  |                |                         |
| 38.I can recognize students' progress and enjoy stimulating their interest in learning English.                              |                            |                   |                  |                |                         |

| <b>EFL Instructors Professional Competence Development</b>                            | <b>Strongly Disagree 1</b> | <b>Disagree 2</b> | <b>Neutral 3</b> | <b>Agree 4</b> | <b>Strongly Agree 5</b> |
|---------------------------------------------------------------------------------------|----------------------------|-------------------|------------------|----------------|-------------------------|
| 39.I can adopt various teaching forms to keep students' interest in learning English. |                            |                   |                  |                |                         |
| 40..I can organize students to study in class well.                                   |                            |                   |                  |                |                         |
| <b>Scientific Research Competence</b>                                                 |                            |                   |                  |                |                         |
| 41.I have good research application writing ability.                                  |                            |                   |                  |                |                         |
| 42.I have made some theoretical contributions in specific research fields.            |                            |                   |                  |                |                         |
| 43.I can provide support and help to other researchers.                               |                            |                   |                  |                |                         |
| 44.I have good research report writing skills.                                        |                            |                   |                  |                |                         |
| 45.I have excellent ability to find answers when sufficient information is provided.  |                            |                   |                  |                |                         |
| 46.I can effectively identify knowledge gaps and propose research topics.             |                            |                   |                  |                |                         |

Additional Suggestions or Remarks (Please write in the space provided).

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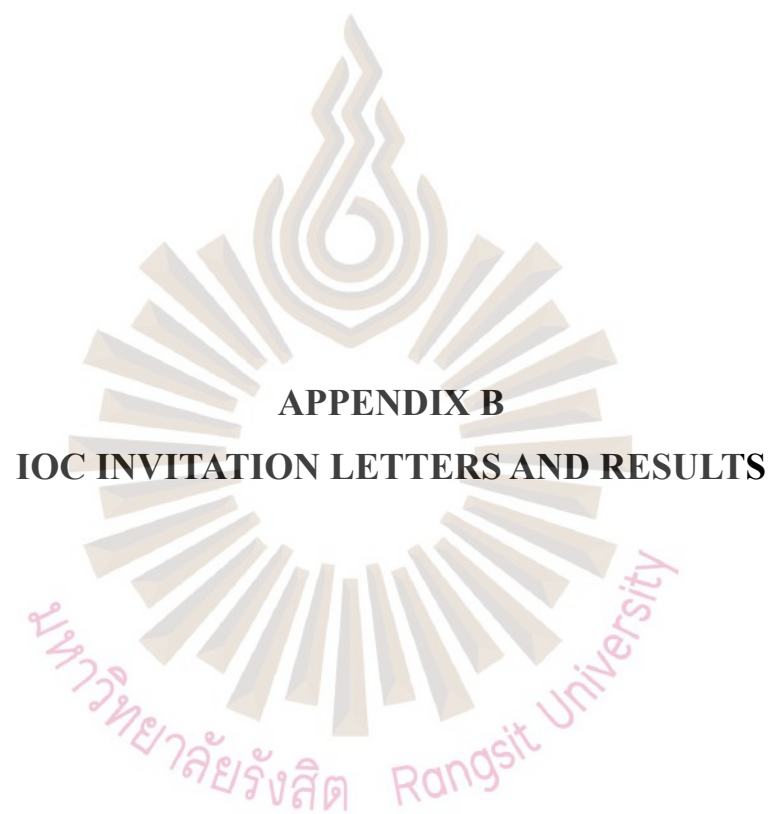


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## Instrument 2

### Semi-Structured Interviews

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Interview Objective:</b> In this interview, we would like to explore the importance of social support, educational directors support and social support on the professional competence development, and to examine the factors influencing the professional competence development of EFL instructors in Sichuan Province. The information of this semi-structured interview will be kept strictly confidential and used as a research content in the future. The interview time for each is approximately 10 to 15 minutes.</p> |
| <p><b>Prompt Questions</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>1. What important measures has your college taken to promote the professional competence development of EFL instructors? How does it work? What measures do you think are the most helpful to your professional development?</p>                                                                                                                                                                                                                                                                                                    |
| <p>2. What kind of support and help do you think is needed to promote the professional competence development of EFL instructors?</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>3. How do you and those around you (friends, family, neighbors, etc.) view your career?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>4. What measures have the educational directors of your college taken for the professional competence development of EFL instructors? How does it work? What are the problems?</p>                                                                                                                                                                                                                                                                                                                                                  |
| <p>5. In addition to your personal efforts, what conveniences do you think the college should provide for you?</p>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>6. How do you understand the relationship among EFL instructors, private colleges and educational directors of your city?</p>                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>7. As an EFL instructor in a private college, how do you think EFL instructors, colleges and educational directors should coordinate to promote teachers' professional competence development more effectively?</p>                                                                                                                                                                                                                                                                                                                 |



**APPENDIX B**  
**IOC INVITATION LETTERS AND RESULTS**



มหาวิทยาลัยรังสิต Rangsit University T. (66) 2997 2200-30  
เมืองเอก ก.พ.พล.ย.ธ. Muang-Aike, Pathayothin Rd. F. (66) 2791 5757  
จ.ปทุมธานี 12000 Pathumthani 12000, Thailand E. info@rsu.ac.th



STC 4800/1324

1 July, 2024

Subject: Invitation for being an Index Item - Objective Congruence (IOC) expert

Dear Professor, Dr. Kong Lingcui

Foreign Languages School, Sichuan Normal University, China

The Doctor of Education Program, in Educational Studies, Suryadhep Teachers College, Rangsit University organized a Research Proposal Defense for Mr. Jun Wang, Student Number 6306054 ( Asst.Prof.Dr. Anchalee Chayanuvat is his advisor) on 21 April 2024.

His research title is " Professional Competence Development of EFL Instructors in Private Colleges in Sichuan Province from the Perspective of Ecological Education " Currently, he is in the middle of the instrument design phase and has come up with the instrument for his study.

Thus, the Program would like to invite you to be our IOC expert for examining the research instruments. Your suggestions to improve our student's research truly appreciated.

Sincerely yours,

A handwritten signature in blue ink, reading 'Dr. Pimurai Limpapath'.

Assistant Professor Dr. Pimurai Limpapath, Ph.D.

Director of Doctoral Degree Program in Educational Studies

Suryadhep Teachers College, Rangsit University



มหาวิทยาลัยรังสิต Rangsit University T. (66) 2997 2200-30  
เมืองเอก อ.พหลโยธิน Muong-Aek, Pathayothin Rd. F. (66) 2791 5757  
จ.ปทุมธานี 12000 Pathumthani 12000, Thailand E. info@rsu.ac.th



STC 4800/1325

1 July, 2024

Subject: Invitation for you to be an Index Item - Objective Congruence (IOC) expert

Assoc Professor, Dr. Li Quan.

Foreign Languages School, University of Electronic Science and Technology of China

The Doctor of Education Program, in Educational Studies, Suryadhep Teachers College, Rangsit University organized a Research Proposal Defense for Mr. Jun Wang, Student Number 6306054 ( Asst.Prof.Dr. Anchalee Chayanuvat is his advisor) on 21 April 2024.

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Sincerely yours,

A handwritten signature in blue ink, which appears to read 'Dr. Pimurai Limpapath'.

Assistant Professor Dr. Pimurai Limpapath, Ph.D.

Director of Doctoral Degree Program in Educational Studies

Suryadhep Teachers College, Rangsit University



มหาวิทยาลัยรังสิต Rangsit University T. (66) 2997 2200-30  
เมืองเอก อ.พหลโยธิน Muang-Ake, Pathayathin Rd. F. (66) 2791 5757  
จ.ปทุมธานี 12000 Pathumthani 12000, Thailand E. info@rsu.ac.th



STC 4800/1326

1 July, 2024

Subject: Invitation for being an Index Item - Objective Congruence (IOC) expert

Assoc. Professor, Dr. Huang Yan,  
Foreign Languages School, Sichuan University of Science and Engineering, China

The Doctor of Education Program, in Educational Studies, Suryadhep Teachers College, Rangsit University organized a Research Proposal Defense for Mr. Jun Wang, Student Number 6306054 ( Asst.Prof.Dr. Anchalee Chayanuvat is his advisor) on 21 April 2024.

His research title is " Professional Competence Development of EFL Instructors in Private Colleges in Sichuan Province from the Perspective of Ecological Education " Currently, he is in the middle of the instrument design phase and has come up with the instrument for his study.

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Sincerely yours,

Assistant Professor Dr. Pimurai Limpapath, Ph.D.

Director of Doctoral Degree Program in Educational Studies

Suryadhep Teachers College, Rangsit University



มหาวิทยาลัยรังสิต Rangsit University T. (66) 2997 2200-30  
เมืองเอก อ.พหลโยธิน Muang-Ake, Pathayothin Rd. F. (66) 2791 5757  
จ.ปทุมธานี 12000 Pathumthani 12000, Thailand E. info@rsu.ac.th



STC 4800/1327

1 July, 2024

Subject: Invitation for being an Index Item - Objective Congruence (IOC) expert

Dr. Sun Tian,  
Yunnan Technology and Business University, China

The Doctor of Education Program, in Educational Studies, Suryadhep Teachers College, Rangsit University organized a Research Proposal Defense for Mr. Jun Wang, Student Number 6306054 ( Asst.Prof.Dr. Anchalee Chayanuvat is his advisor) on 21 April 2024.

His research title is " Professional Competence Development of EFL Instructors in Private Colleges in Sichuan Province from the Perspective of Ecological Education " Currently, he is in the middle of the instrument design phase and has come up with the instrument for his study.

Thus, the Program would like to invite you to be our IOC expert for examining the research instruments. Your suggestions to improve our student's research truly appreciated.

Sincerely yours,

A handwritten signature in blue ink, which appears to read 'Dr. Pimurai Limpapath', is placed above the typed name.

Assistant Professor Dr. Pimurai Limpapath, Ph.D.

Director of Doctoral Degree Program in Educational Studies

Suryadhep Teachers College, Rangsit University



มหาวิทยาลัยรังสิต Rangsit University T. (66) 2997 2200-30  
เมืองเอก อ.พหลโยธิน Muang-Ake, Pathayothin Rd. F. (66) 2791 5757  
จ.ปทุมธานี 12000 Pathumthani 12000, Thailand E. info@rsu.ac.th

STC 4800/1328

1 July, 2024

Subject: Invitation for being an Index Item - Objective Congruence (IOC) expert

Dr. Duan Maojun,

Foreign Languages School, Sichuan Normal University, China

The Doctor of Education Program, in Educational Studies, Suryadhep Teachers College, Rangsit University organized a Research Proposal Defense for Mr. Jun Wang, Student Number 6306054 (Asst.Prof.Dr. Anchalee Chayanuvat is his advisor) on 21 April 2024.

His research title is "Professional Competence Development of EFL Instructors in Private Colleges in Sichuan Province from the Perspective of Ecological Education" Currently, he is in the middle of the instrument design phase and has come up with the instrument for his study.

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Sincerely yours,

A handwritten signature in blue ink, which appears to read 'Dr. Pimurai Limpath'.

Assistant Professor Dr. Pimurai Limpath, Ph.D.

Director of Doctoral Degree Program in Educational Studies

Suryadhep Teachers College, Rangsit University

### IOC Results of the Questionnaire for Demographic Factors

| Items | Rating by experts |          |          |          |          | IOC Average | Result    |
|-------|-------------------|----------|----------|----------|----------|-------------|-----------|
|       | Expert 1          | Expert 2 | Expert 3 | Expert 4 | Expert 5 |             |           |
| 1     | +1                | +1       | +1       | +1       | +1       | 1.00        | Completed |
| 2     | +1                | +1       | +1       | +1       | +1       | 1.00        | Completed |
| 3     | +1                | +1       | +1       | +1       | +1       | 1.00        | Completed |
| 4     | +1                | +1       | +1       | +1       | +1       | 1.00        | Completed |
| 5     | +1                | +1       | +1       | +1       | +1       | 1.00        | Completed |
| 6     | +1                | +1       | +1       | +1       | +1       | 1.00        | Completed |

### IOC Results of the Questionnaire

| Items | Rating by experts |          |          |          |          | IOC Average | Result     |
|-------|-------------------|----------|----------|----------|----------|-------------|------------|
|       | Expert 1          | Expert 2 | Expert 3 | Expert 4 | Expert 5 |             |            |
| 1     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 2     | +1                | +1       | 0        | +1       | +1       | 0.80        | Unaccepted |
| 3     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 4     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 5     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 6     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 7     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 8     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 9     | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 10    | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 11    | +1                | +1       | +1       | +1       | 0        | 1.00        | Accepted   |
| 12    | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 13    | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 14    | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |
| 15    | +1                | +1       | +1       | +1       | +1       | 1.00        | Accepted   |

| Items | Rating by experts |          |          |          |          | IOC<br>Average | Result     |
|-------|-------------------|----------|----------|----------|----------|----------------|------------|
|       | Expert 1          | Expert 2 | Expert 3 | Expert 4 | Expert 5 |                |            |
| 16    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 17    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 18    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 19    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 20    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 21    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 22    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 23    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 24    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 25    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 26    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 27    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 28    | +1                | 0        | +1       | +1       | +1       | 0.80           | Unaccepted |
| 29    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 30    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 31    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 32    | 0                 | +1       | +1       | +1       | +1       | 0.80           | Unaccepted |
| 33    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 34    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 35    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 36    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 37    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 38    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 39    | +1                | +1       | 0        | +1       | +1       | 0.80           | Unaccepted |
| 40    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 41    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 42    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |
| 43    | +1                | 0        | +1       | 0        | +1       | 0.60           | Unaccepted |
| 44    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted   |

| Items | Rating by experts |          |          |          |          | IOC<br>Average | Result   |
|-------|-------------------|----------|----------|----------|----------|----------------|----------|
|       | Expert 1          | Expert 2 | Expert 3 | Expert 4 | Expert 5 |                |          |
| 45    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 46    | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |

### IOC Results of the Semi-structured Interview

| Items            | Rating by experts |          |          |          |          | IOC<br>Average | Result   |
|------------------|-------------------|----------|----------|----------|----------|----------------|----------|
|                  | Expert 1          | Expert 2 | Expert 3 | Expert 4 | Expert 5 |                |          |
| Prompt Questions |                   |          |          |          |          |                |          |
| 1                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 2                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 3                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 4                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 5                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 6                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |
| 7                | +1                | +1       | +1       | +1       | +1       | 1.00           | Accepted |



**APPENDIX C**  
**QUALITATIVE DATA**

It shows the qualitative data from one interviewee. The interview recording was documented in the script as follows.

Q: Good morning, How are you?

A: Good morning, I am good.

Q: Can I ask you some questions related to the professional competence development of your college?

A: Sure, No problem.

Q: What important measures has your college taken to promote the professional competence development of EFL instructors? How does it work? What measures do you think are the most helpful to your professional development?

A: Our college has implemented several key measures to enhance the professional competence of EFL instructors. Firstly, we organize regular training sessions and workshops, focusing on updating teaching methodologies and educational technologies. These sessions are conducted by experts in the field, providing us with valuable insights and practical tips. Secondly, we encourage and support teachers to participate in conferences and seminars, allowing them to network with peers and learn from best practices across the globe. Among these, I find the workshops and conferences particularly helpful as they provide a platform for exchange of ideas and learning from experienced teachers.

Q: What kind of support and help do you think is needed to promote the professional competence development of EFL instructors?

A: I believe that to further promote the professional development of EFL instructors, there is a need for more targeted mentoring programs. These could pair experienced teachers with newcomers, providing guidance and support in teaching practices. Additionally, access to advanced educational resources and materials would be beneficial, especially those that are aligned with current trends and methodologies in English language teaching.

Q: How do you and those around you (friends, family, neighbors, etc.) view your career?

A: My career as an EFL instructor is highly respected among my peers and family. They recognize the importance of language education in today's globalized world and

appreciate the efforts I put into enhancing my students' language skills. My friends and family often express their admiration for my dedication and commitment to teaching, hence I would try my best to improve my professional competence.

Q: What measures have the educational directors of your college taken for the professional competence development of EFL instructors? How does it work? What are the problems?

A: The educational directors have taken several initiatives for the professional development of EFL instructors. They regularly organize internal and external training programs, focusing on enhancing teaching skills and keeping us updated with the latest teaching practices. However, one of the main challenges we face is the limited availability of resources, which sometimes restricts the scope and depth of these training. The incentives of educational directors provide also stimulate our willingness to develop our professional competence.

Q: In addition to your personal efforts, what conveniences do you think the college should provide for you?

A: Apart from personal development opportunities, I believe the college should provide more resources and support in terms of technological infrastructure. Having access to modern educational tools and platforms would greatly enhance our teaching capabilities and make the learning process more engaging for students. Additionally, a more flexible schedule for professional development activities would allow teachers to balance their workload and personal growth.

Q: How do you understand the relationship among EFL instructors, private colleges, and educational directors?

A: I view the relationship between EFL instructors, private colleges, and educational directors as a symbiotic one. EFL instructors are the front line educators responsible for imparting knowledge and skills to students. Private colleges provide the platform and resources for this education to take place, while educational directors set the vision, direction, and policies that enable effective teaching and learning. All three components are crucial for the success of any educational institution.

Q: As an EFL instructor in a private college, how do you think EFL instructors, colleges, and educational directors should coordinate to promote teachers' professional competence development more effectively?

A: For more effective coordination, I believe regular communication and feedback mechanisms should be established between EFL instructors, colleges, and educational directors. This would allow for a better understanding of each other's needs and expectations. Additionally, colleges should encourage and support teachers' participation in professional development activities by providing necessary resources and time. Educational directors can facilitate this by creating a vision that aligns with the professional growth of teachers, and by implementing policies that support and reward continuous learning and improvement.





**APPENDIX D**

**CERTIFICATE OF BACK TRANSLATION**

### Certificate of Back-translation

This certificate is to certify that Assoc. Prof. Li Xiangcheng from Bazhong Translation Association and he is an English language expert with rich translation experience. Assoc. Prof. Li is willing to cooperate with Mr. Wang Jun (Ed.D student of Rangsit University) and has completed the back translation work of all the research instruments.

Signature:   
Assoc. Prof. Li Xiangcheng

Bazhong Translation Association

July 10, 2024



The logo of Rangsit University is a circular emblem. At the top is a stylized flame or sunburst. Below it are several radiating lines of varying lengths, creating a sunburst effect. The text "มหาวิทยาลัยรังสิต" is written in Thai script along the bottom arc, and "Rangsit University" is written in English along the bottom arc.

**APPENDIX E**  
**CERTIFICATE OF APPROVAL BY ETHICS REVIEW OF**  
**RANGSIT UNIVERSITY**

COA. No. RSUERB2024-138



**Certificate of Approval  
By  
Ethics Review Board of Rangsit University**

|                        |                                                                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| COA. No.               | COA. No. RSUERB2024-138                                                                                                                     |
| Protocol Title         | Professional Competence Development of EFL Instructors in Private Colleges in Sichuan Province from the Perspective of Ecological Education |
| Principle Investigator | Wang Jun                                                                                                                                    |
| Affiliation            | Suryadhep Teachers College, Rangsit University                                                                                              |
| How to review          | Expedited Review                                                                                                                            |
| Approval includes      | 1. Project proposal<br>2. Information sheet<br>3. Informed consent form<br>4. Data collection form/Program or Activity plan                 |
| Date of Approval:      | 9 August 2024                                                                                                                               |
| Date of Expiration:    | 9 August 2026                                                                                                                               |
| Date of Renewal:       | within 9 July 2026                                                                                                                          |

The prior mentioned documents have been reviewed and approved by Ethics Review Board of Rangsit University based Declaration of Helsinki, The Belmont Report, CIOMS Guideline and International Conference on Harmonization in Good Clinical Practice or ICH-GCP.

Signature.....  
 (Associate Professor Dr. Panan Kanchanaphum)  
 Chairman, Ethics Review Board for Human Research



Ethics Review Board of Rangsit University, 5th floor, Arthit Ourairat Building (Bldg.1) Rangsit University

Tel. 0-2791-5728 Email: rsuethics@rsu.ac.th



**APPENDIX F**  
**LIST OF ACRONYMS**

**Here are the acronyms that were used in this dissemination, the list of acronyms can help you to better understand.**

PCS: Private Colleges Support

SS: Social Support

EDS Educational Directors Support

PV: Professional Value

PB: Professional Sense of Belonging

PE: Professional Efficacy

EFL PCD: EFL Instructors' Professional Competence Development

PCD: Professional Competence Development

LAC: Language Application Competence

TEC: Teaching English Competence

SRC: Scientific Research Competence



## BIOGRAPHY

|                      |                                                                                                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                 | Jun Wang                                                                                                                                                                                                                                                              |
| Date of birth        | September 24, 1988                                                                                                                                                                                                                                                    |
| Place of birth       | Yilong, Sichuan Province, China                                                                                                                                                                                                                                       |
| Education background | East China University of Technology, China<br>Bachelor of Literature in English, 2014<br>Sichuan Normal University, China<br>Master of Translation and Interpretation,<br>2020<br>Rangsit University, Thailand<br>Doctor of Education in Educational Studies,<br>2024 |
| Address              | Building 12-10-1, Guanlan Shangyu, Longbei<br>Road, Bazhou District, Bazhong City, Sichuan<br>Province, China                                                                                                                                                         |
| Email Address        | 363147819@qq.com                                                                                                                                                                                                                                                      |
| Place of work        | Bazhong Vocational and Technical College                                                                                                                                                                                                                              |
| Work position        | Director of English Teaching, Assoc.Prof.                                                                                                                                                                                                                             |