QUANTITATIVE ANALYSIS OF EDUCATIONAL TECHNIQUES FOR PSYCHOLOGICAL DEVELOPMENT IN VOCATIONAL STUDENTS IN CHINA

SHUANG LI

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR THE DEGREE OF DOCTOR OF EDUCATION
PROGRAM IN VOCATIONAL EDUCATION
FACULTY OF TECHNICAL EDUCATION
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANYABURI
ACADEMIC YEAR 2023

COSTRUCTION OF AN EVALUATION SYSTEM FOR MICRO VIDEO TEACHING RESOURES IN CHINESE FOLK TRADITIONAL CRAFTS

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วิทยานิพนธ์ฉบับนี้เป็นงานวิจัยที่เกิดจากการค้นคว้าและวิจัย ขณะที่ข้าพเจ้าศึกษาอยู่ในคณะครุศาสตร์อุตสาหกรรม มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี ดังนั้น งานวิจัยในวิทยานิพนธ์ฉบับนี้ถือเป็นลิขสิทธิ์ของมหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี และข้อความต่าง ๆ ในวิทยานิพนธ์ฉบับนี้ ข้าพเจ้าขอรับรองว่าไม่มีการคัดลอกหรือนำงานวิจัยของผู้อื่นมานำเสนอในชื่อของข้าพเจ้า

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ABSTRACT

The purposes of this research were to: 1) examine the environment, the educational system, the teacher-student relationship, the students' self-awareness, and the other aspects affecting Chinese vocational students' psychological quality and 2) develop a model of educational techniques for psychological development for vocational students.

The population and the samples consisted of 7,000 students in Sichuan Vocational and Technical College of Industry and Commerce in Zigong City, Rong County, China. The 4-point scale questionnaires with Guttman split-half reliability coefficient of .802 were used with a percentage-based scoring standard explained as a score below 50 indicating "strongly disagree," a score between 51 and 70 indicating "neutral," a score between 71 and 90 indicating "moderately agree," and a score between 91 and 100 indicating "strongly agree."

The study revealed that 4,768 students completed 6,458 surveys. After deleting 97 low-reliability questionnaires with similar answers to seven consecutive items, 4,671 were valid. The model of educational techniques for psychological development for vocational students included implementing multi-level therapy, methodical mental health education, and a supportive learning environment.

Keywords: psychological quality; vocational students, China, improvement, strategies

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Shuang Li

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CHAPTER 1
INTRODUCTION

1.1 Background and Statement of the Problem

In recent years, China has placed a large emphasis on vocational education as a means of developing a trained labor force to support the country's rapid economic development. This is because vocational education plays a critical role in producing a skilled workforce. The mental health of students attending vocational schools, which are institutions that train students for specific vocations, is of the utmost significance. Vocational schools function as institutions that prepare students for specific careers. The level of psychological well-being and mental health that students in vocational schools possess can have a significant bearing on their academic success, readiness for the workforce, and general quality of life. The disparities in subjective well-being across genders, school types, and academic achievement levels. The study used questionnaires like the Satisfaction with Life Scale, the Scale of Positive and Negative Experience, and the Flourishing Scale to measure life satisfaction, emotional judgments, and self-perceived success. Results showed significant differences in academic achievement and subjective well-being among students, with the SPANE domain showing a significant difference. The findings highlight the importance of understanding and addressing subjective
well-being in diverse contexts [1].

Psychological quality is crucial for vocational students, but career uncertainty and academic pressure can negatively impact their psychological well-being, necessitating the development of effective countermeasures to promote positive psychological development. The psychological quality development of students in vocational schools in China has become a critical issue in current educational reform and development. Vocational schools focus on skill training and career preparation, but the psychological quality of students is an equally essential part of education. Psychological quality encompasses not only students' emotional, cognitive, and social abilities but also has a strong correlation with their vocational adaptability and future success. In recent years,

with rapid socioeconomic changes and the growing importance of vocational education, the psychological pressures faced by vocational school students have also
increased. Many students may encounter challenges and struggles related to self-identity, interpersonal relationships, and career direction choices. The study examines the relationship between vocational reconsideration dimensions and positive and negative outcomes of psychosocial functioning in Italian high school students. Results show a general association between vocational identity flexibility and negative psychosocial functioning. The study warns against excessive promotion of vocational flexibility among adolescents and encourages high schools to support students in their life design process [2].

Data science has been increasingly integrated into psychological research, particularly in the context of open science practices. Psychological Science has implemented open data and materials badges to promote transparency [3]. This shift aims to increase replicability and the availability of open data and materials [4]. However, challenges persist in the adoption of big data analytical techniques due to researchers' limited knowledge in this area [5]. Integrating
psychological theories with data science has shown promise in predicting human behavior [6]. Despite these advancements, the field still faces challenges in replication and generalization, which are more common in physical sciences [7]. The integration of digital-traces data into psychological science has been proposed to enrich and overcome current research limitations [8]. The adoption of open science practices, including open data, has been increasing in psychology, with a focus on promoting transparency and reproducibility [9]. Overall, the integration of data science into psychological research has the potential to advance the field by promoting transparency, replicability, and the integration of digital-traces data.

The incorporation of data-driven interventions in psychological development can be enhanced by leveraging open science research priorities. In [10] utilizing social media as a tool for psychological insight [11], fostering an open science mindset [12], and embracing open science practices in health psychology and behavioral medicine. These references underscore the significance of utilizing open science, social media data, and an open science mindset to

drive data-driven interventions for psychological development. The available references offer valuable insights into leveraging human-centered design for implementing modern psychological science [13], utilizing core processes for planning behavior change interventions [14], and best practices for digital interventions to improve engagement and adherence in chronic illness sufferers [15]. These sources provide data-driven approaches to evaluating intervention efficacy in psychological settings.

Therefore, actively focusing on and promoting the psychological quality development of vocational school students becomes vitally important. This requires a joint effort from schools, educational departments, and all sectors of society. By employing scientific educational methods, professional psychological counseling services, and a positive and healthy school culture, students can be assisted in developing healthy psychological qualities. This development enhances their resilience and adaptability, laying a solid foundation for their vocational career and overall life growth.

1.2 Significance of the Study

The dissertation attends to important components that lead to synthesize learning process theories related to Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts; and to identify and develop Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts.

1.3 Purpose of the Study

The objectives of the study are as follows:

1.3.1 To synthesize learning process theories related to Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts.

1.3.2 To identify and develop Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts

1.4 Research Questions and Hypothesis

1.4.1 How can an effective Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts?

1.4.2 What are the key factors in identifying and developing Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts?

1.5 Conceptual Framework

This research adopts a "Research and Development" approach. This approach constitutes a development model with a focus on industry growth, enhancement and or improvement as in Figure 1.1.

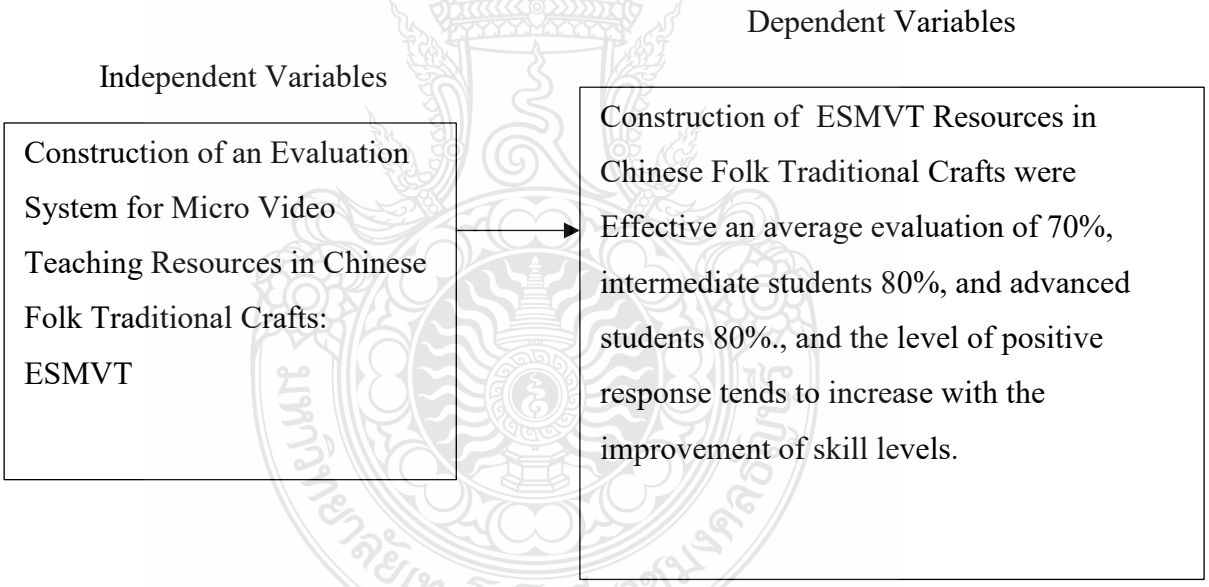

Figure 1.1 Conceptual Framework of Conceptual Framework of ESMVT

1.6 Theoretical Perspective

1.6.1 Learning process theories are defined Construction of an ESMVT resources in Chinese Folk Traditional Crafts.

1.6.2 The theoretical perspectives of the review of these theories focus on four terms, namely principles, teaching-learning activities/strategies, teaching-learning environments and teaching- learning models.

1.6.3 The Delphi technique was used to synthesize Construction of an ESMVT resources in Chinese Folk Traditional Crafts.

1.7 Definition Perspective

The following is a list of definitions of this study:

1.7.1 An effective Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts.

1.7.2 Self-regulated learning refers to one's ability to understand and control one's learning environment. Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts.

1.7.3 Construction of an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts. How to create an Construction of an ESMVT resources in Chinese Folk Traditional Crafts refers to the idea, policy and measures that construct and manage teaching, learning, research, service and management in the education and culture. The Construction of an ESMVT resources in Chinese Folk Traditional Crafts. In the university of higher education.

1.7.4 The Delphi technique means a process mostly used in research and economics, aiming to collect opinions on a particular research question or specific topic, to gain consensus. The opinions are collected from a group of experts that are not physically assembled, normally through questionnaires. A specific number of experts, qualified in higher education internationalization and education technology determined the results. They had doctoral degrees or had worked for over five years at least in the position of Professor, Associate Professor, Lecturer and Researcher.

1.8 Expected Benefits

The expected benefits focus on the following:

1.8.1 This research provides Construction of an ESMVT resources in Chinese Folk Traditional Crafts.

1.8.2 This research helps to identify and develop to Construction of an ESMVT resources in Chinese Folk Traditional Crafts.

CHAPTER 2
LITERATURE REVIEW

This chapter will contribute further to the literature review during the study's design and present to identify and develop an Evaluation System for Micro Video Teaching Resources in Chinese Folk Traditional Crafts. This chapter is divided into the following parts:

2.1 Career Technical Schools
2.2 Correlative Research on Students' Psychological Quality in China
2.3 Improving the Psychological Quality of Vocational School Students
2.4 The Path to Realize the Mental Health Development of Secondary Vocational School Students
2.5 Analysis of the Psychological Quality of Chinese Vocational School Students
2.6 Literature Review of Relevance of Research

2.1. Career Technical Schools

The characteristics of vocational education in country and provide insights and suggestions for the development of vocational education in country. A comparative point of view, compare the development of vocational education in Europe, the United States, Canada, Russia, and other countries; in addition, compare the development of vocational education in other countries. Personnel training, project construction, teacher training, teaching practice, and other areas of secondary vocational education in nation [16]. Theories of self-determination and career growth go hand in hand. Students in Chinese secondary vocational school and the relationship between their parents' support and their academic participation. The application of career building theory to a group of students enrolled in secondary vocational education in China, as well as providing insightful and helpful recommendations for the implementation of assistance measures. For the purpose of fostering students' intellectual growth and professional development [17]

2.2. Correlative Research on Students' Psychological Quality in China

The article "Current Situation of College Students' Psychological Quality and Its Relationship with Mental Health, Social Adaptation, and Academic Development" [18] selects a large representative sample of college students across the country to investigate the status quo of their psychological quality. The study aims to analyze and summarize the impact of psychological quality on students' physical and mental health, academic development, and social adaptation.

2.3. Improving the Psychological Quality of Vocational School Students

In the paper titled "Research on Psychological Issues of Secondary Vocational School Students," the psychological problems of secondary vocational school students are classified into several categories, including learning psychology, emotional psychology, personality psychology, self-psychology, interpersonal psychology, sexual psychology, and career psychology. The authors believe that factors influencing students' psychological quality stem from students themselves, families, schools, and society. Consequently, improvements in the psychological quality of secondary vocational school students can be addressed from these perspectives [19].

2.4. The Path to Realize the Mental Health Development of Secondary Vocational School Students

Shen Xiaoqin's study titled "Vocational School Students' Psychological Status Quo and Educational Countermeasure Exploration" employed the Middle School Students' Psychological Quality Scale (MSMQS) to conduct questionnaire testing and investigate students' psychological quality. The author put forward three suggestions: strengthening the construction of rules and regulations to ensure the standardization of students' mental health education and optimizing the mental health education team [20]. In Li Shumin's work titled "Strategies for Improving the Psychological Quality of Vocational School Students," countermeasures for enhancing the psychological quality of vocational school students are summarized. These countermeasures include deepening education and teaching reforms to pay attention to student's mental health, improving

teachers' psychological quality, and strengthening the construction of school culture to provide a conducive environment for enhancing students' psychological quality [21]. Overall, while numerous domestic studies have been conducted on the psychological quality of college students, research on vocational school
students remains limited. Most existing studies tend to be too conceptual, lacking specific and feasible improvement measures. Therefore, this study focuses on the investigation and analysis of specific schools to address the psychological problems and characteristics of vocational school students and proposes practical improvement measures, aiming to provide valuable insights for enhancing the psychological quality of vocational school students in China.

2.5. Analysis of the Psychological Quality of Chinese Vocational School Students

In the analysis of the psychological quality of Chinese vocational school students and the research on enhancement strategies, some studies have shown a relationship between students' academic performance, self-efficacy, and their positive attitude toward learning. Firstly, the development of vocational education has garnered attention from all sectors of society, and China's vocational education is gradually progressing [22]. In 2022, the Chinese government passed an amendment to the Vocational Education Act, emphasizing the importance of vocational education to China's contributions to global economic and social development. The amendment focuses on the cultivation of quality and student development in vocational education. Studies in Western societies, such as Germany, Greece, Italy, Croatia, Austria, and other countries, have shown that students' academic performance in secondary vocational education is often relatively weak [23] [24]. Studies in China have yielded similar results [25] [26].

Regarding the influencing factors of students' academic performance in secondary vocational education, most existing studies have focused on the influence of family socioeconomic status [25] and parents' educational level [26]. Less attention has been paid to social-psychological environmental factors. Secondly, self-efficacy in learning is also an important indicator of psychological quality. In a study in Shandong Province, it was found that 25.3% of vocational students have high self-efficacy in learning, 72.7% are moderate, and 2.0% are low [27]. Improving students' self-efficacy

in learning is an effective improvement strategy, as it can enhance students' learning motivation and improve their academic performance. Lastly, the reform of educational models is an important way to improve students' psychological quality. With the Chinese government's emphasis on vocational education, more and more policies and measures are being introduced to accelerate the development of vocational education [28]. However, the social recognition of vocational education is still low. Therefore, reforming and innovating the education model and improving the quality and social recognition of vocational education will help enhance the psychological quality of vocational school students.

2.1.1 A Comprehensive Framework for Studying Dependent Variables

This paper aims to investigate the current status and measures to improve the psychological well-being of vocational school students in China. The research focuses on the psychological well-being of Chinese vocational school students, which is based on physiological conditions and involves the internalization of external experiences into stable psychological qualities closely related to adaptation, development, and creative behaviors. It comprises three main dimensions: cognitive factors, personality factors, and adaptability factors, which are considered as the dependent variables in this study.

Cognitive factors refer to the characteristics exhibited by individuals in cognitive processes, while personality factors represent the personality traits demonstrated by individuals in their daily learning and life. Adaptability involves habitual behavioral tendencies formed through interactions with specific situations, making it a functional element of psychological well-being. Students exhibit different characteristics in cognitive, personality, and adaptability aspects based on individual factors such as age, gender, personality traits, and psychological needs. Cognitive qualities include students' self-awareness of their behavior, their self-consciousness when facing and solving problems, and their openness to others' opinions. Personality qualities include students' confidence, self-control, optimism, and other personality traits. Adaptability encompasses students' vocational, social, interpersonal, emotional, learning, and physiological adaptability.

Through literature review, several significant research findings related to the factors influencing vocational school students' psychological well-being have been identified. For instance, in the paper "Analysis of Psychological Health and Educational Countermeasures for Vocational School Students" (Li Xiaomei, 2022), the author analyzes the manifestations and causes of psychological issues among vocational students to seek measures for improvement and elimination of these problems. Another thesis titled "Research on Psychological Health Issues of Vocational School Students" (Liu Li, 2012) investigates the causes of psychological issues among Chinese vocational school students through interviews. The research identifies factors such as students' aversion to learning, interpersonal difficulties, social pressures, emotional confusion, and negative emotions as major aspects influencing the psychological well-being of Chinese vocational school students.

2.1.2 Research on Dependent and independent variables

Because students' psychological factors are affected by many situations, this paper first focuses on the study of Dependent and independent variables and dependent variables.

This study mainly investigates the psychological well-being of students in Chinese secondary vocational schools. To further explore this issue, the individual characteristics of students are specifically divided into demographic variables such as gender, grade, school level, region, discipline category, family residence, and whether they are only children, serving as independent variables in this study. In related research, there have been certain achievements in studying the factors that influence the psychological well-being of vocational school students. The paper "Factors Affecting the Psychological Well-being of Vocational College Students" (Wang Huimin, 2019) suggests that there are two factors influencing the psychological well-being of vocational students: blind conformity and timidity, and rebelliousness and resistance. The paper "Characteristics and Influencing Factors of College Students' Psychological Well-being: An Analysis Based on Online Survey Data of College Students" (Zhang Dajun, Zhu Zhengguang, 2022) proposes that there are significant differences in college students' psychological well-being based on gender, grade, region, family residence, and whether they have experiences as left-behind children. Specifically, in terms of gender

differences, male students have significantly higher scores in cognitive quality and overall psychological well-being compared to female students, while female students have slightly higher scores in adaptability. In terms of grade differences, the overall psychological well-being and various dimensions show a "U"-shaped developmental trend: freshmen and seniors score significantly higher than sophomores and juniors in all dimensions, while sophomores and juniors do not show significant differences in overall psychological well-being and various dimensions. There is no significant difference in overall psychological well-being between freshmen and seniors. In terms of regional differences, students from the eastern region perform significantly better than those from the central and western regions, and those from the western region perform slightly better than those from the central region. Regarding family residence, students from urban areas perform significantly better in cognitive quality and adaptability than those from rural areas. Additionally, college students with left-behind experiences have significantly lower scores in overall psychological well-being and various dimensions compared to those without such experiences. The paper "Investigation and Analysis of Factors Influencing College Students' Psychological Well-being" (Wang Shengnan, 2016) proposes that objective factors influencing college students' psychological well-being include internal school environmental factors, family factors, social factors, and educational factors. Subjective factors include the social and personality development related to college students' physiological and psychological development, as well as the psychological conflicts and problems caused by their emotional and volitional development, and the interaction between internal and external environments. Through literature review, there are some notable research findings on the independent and dependent variables related to the psychological well-being of vocational school students. In the paper "Investigation and Countermeasure Research on the Mental Health Status of Secondary Vocational School Students" (Fan Heng, Li Cunlan, 2020), a total of 2543 students from 14 secondary vocational schools in Qujing City, Yunnan Province, China were selected as participants. The Symptom Checklist 90 (SCL-90) was used as the survey tool to investigate the psychological well-being of vocational students. The paper pointed out that the psychological well-being level of Chinese vocational students is significantly lower than the national average for adults, but the related psychological

health symptoms are relatively mild, with a detection rate of psychological health problems at 64.22%, which is higher than the national average. Gender, grade, physical health status, and other factors were found to significantly influence the students' psychological well-being. In the paper "Investigation and Exploration of the Psychological Health Status and Countermeasures of Secondary Vocational School Students" (Wang Zhen, Sun Yuangang, 2019), the authors argued that secondary vocational school students, as a special group of young people, face various developmental issues that affect their psychological well-being, requiring our attention and solutions. The study identified learning psychology, interpersonal relationships, emotional state, and sexual psychology as the main factors influencing the psychological well-being of vocational school students. Through literature review, there are some noteworthy research findings regarding the independent and dependent variables related to vocational school students' psychological well-being. In the study by Fan Heng and Li Cunlan titled "Survey and Countermeasure Research on the Psychological Health Status of Secondary Vocational School Students," 2543 students from 14 secondary vocational schools in Qujing City, Yunnan Province, were selected as subjects. The Symptom Checklist-90 (SCL-90) was used as the survey tool to investigate the psychological health status of vocational students. The paper pointed out that the psychological health level of Chinese vocational students is significantly lower than that of the national normal adult population, but the related psychological health symptoms are relatively mild, with a detection rate of psychological health issues at 64.22%, higher than the national average. Among them, factors such as gender, grade, and physical health status significantly influence students' psychological health status. (Fan Heng & Li Cunlan, 2020)

In the study by Wang Zhen and Sun Yuangang titled "Exploration of the Current Status and Countermeasures of Psychological Health of Secondary Vocational School Students," it is suggested that secondary vocational school students, as a special group of young people, face various developmental issues that affect their psychological well-being, necessitating Attention and resolution. The research identifies students' learning psychology, interpersonal relationships, emotional states, and sexual psychology as the main factors contributing to their psychological well-being. (Wang Zhen & Sun Yuangang, 2019)

CHAPTER 3
RESEARCH METHODOLOGY

The research objectives of the study are as follows 1) examines environment, educational system, teacher-student relationship, self-awareness, and other aspects affecting Chinese vocational school students' psychological quality., and 2) development Psychological Quality for Vocational School Students in China Model for address unique psychological challenges and foster personal development in vocational education. This study describes the research methodology used in the Delphi technique to collect data. The research uses quantitative, qualitative, and mixed research methods. The research instruments for data collection, the data collection procedures, and the statistical methods used for data analysis are explained as follows:

3.1 Sampling Technique

3.2 Instrumentation

3.3 Data Processing and Analysis

3.4 Statistical Analysis

3.5 Data Processing and Analysis

3.6 Statistical Analysis

3.1 Sampling Technique

This research design aims to provide a robust foundation for designing, developing, and implementing quantitative analysis of educational techniques for psychological development in vocational Students in China. This study involves two main groups as subjects of research: learning participants; students and Quantitative Analysis of Educational Techniques for Psychological Development in Vocational Students in China

A number of writings dealing with the methodology of focus groups mention factors of varying scope that influence the outcome of focus groups, but they do not discuss these in connection with the analysis [29] [30] [31]. They stress that attention should be paid to these factors when organizing focus groups because if groups having

different basic characteristics are created, the results will also differ. This method is commonly used in market research, social
sciences, and many other fields. However, it does have some limitations and challenges, one of which is that the views of the participants may influence each other. An important group of phenomena seen in the approach of mainstream social psychology are the forms of social influence occurring in the course of interactions among people when they influence each other's real or openly declared opinions [32]. Several types of this influence can be distinguished: conformity, when the majority of the group exercises influence on the individual [33] [34]; minority influence, when the influence is exercised by a minority [35]; and the case where one individual influence another [32] [36] [37]. The article employs the focus group method, conducting four rounds of discussion on the views of 9 experts. Scores were assigned for the opinions in each round, and the results were verified to have a certain degree of credibility.

3.2 Instrumentation

The research instruments encompass semi-structured interviews, classroom observations, and the analysis of micro-videos used in traditional art learning. The learning materials are centered around traditional Chinese craft techniques and are accessed through designated micro-video platforms.

3.2.1 Semi-structured interviews will be conducted with both students and instructors. These interviews provide the flexibility to explore participant experiences, perceptions, and feedback regarding the micro-video learning approach.

3.2.2 Questions will cover topics such as the effectiveness of micro-videos, challenges faced, and suggestions for improvement. Classroom observations will be conducted to witness micro-videos actual implementation in traditional art learning sessions. This will involve observing how instructors integrate micro-videos into their teaching, student engagement levels, and any observable challenges or successes. The micro-videos used in the traditional art learning process will undergo systematic analysis. This analysis includes evaluating the content, instructional design, visual appeal, and relevance to the learning objectives. Additionally, feedback and comments from students and instructors related to specific micro-videos will be considered. The learning materials

are curated to focus on traditional Chinese craft techniques. These materials are delivered through designated micro-video platforms, ensuring accessibility for both students and instructors. The content will cover a range of traditional craft skills, providing a comprehensive learning experience.

3.3 Data Processing and Analysis

The methodology involves utilizing research findings to design new products and procedures. These products and procedures are then field-tested, evaluated, and iteratively refined until they meet specified criteria of effectiveness, quality, or established standards. The Research and Development approach is chosen to facilitate a more in-depth investigation into implementing a micro-video evaluation system as a key learning resource for traditional crafts in China within the cultural context of Thailand's rich diversity. The primary objective of this methodology is to generate a profound understanding of the effectiveness and applicability of micro-video in learning traditional craft arts.

The data collection process involves a series of steps. Semi-structured interviews with participants and instructors are conducted to gain in-depth insights into perceptions and experiences related to using micro videos. Classroom observations are done to observe the direct interaction between students and micro-video materials. Conduct semi-structured interviews with both students and instructors. Open-ended questions will guide these interviews to allow participants to express their thoughts, experiences, and opinions regarding using micro-videos in traditional art learning. Perform observations during traditional art learning sessions where micro-videos are employed. Focus on the interaction dynamics between students and the micro-video content. Document any observable challenges, engagement levels, and the overall effectiveness of the micro-video learning approach. Analyze the micro-videos used in the learning process. Evaluate their content, instructional design, and relevance to the learning objectives. Consider feedback and comments from both students and instructors related to specific micro-videos. This analysis aims to provide insights into the strengths and weaknesses of micro-video materials. Maintain thorough documentation of all data collected, including interview transcripts, observational notes, and micro-video analyses. This documentation

will serve as a comprehensive record for the subsequent analysis and interpretation of the findings. Adhere to ethical considerations throughout the data collection process, ensuring the confidentiality and anonymity of participants. Obtain informed consent from all participants involved in the interviews and observations. Qualitative data will be analyzed using a thematic analysis approach. Findings from interviews and observations will be categorized and interpreted to identify emerging patterns or themes. Begin by coding the qualitative data obtained from interviews and observations. Assign codes to specific statements or observations about using micro-videos in traditional art learning. This initial coding process helps in organizing the data systematically. Group the coded data into broader themes. Look for recurrent patterns, topics, or issues across participants and contexts. Themes may include student engagement, challenges, and perceptions of micro video effectiveness. Interpret the identified themes in the context of the research questions and objectives. Explore the nuances within each theme and consider how they contribute to the overall understanding of micro-videos impact on traditional art learning.

Enhance the reliability and validity of the findings through triangulation. Compare and contrast data from different sources, such as comparing interview responses with classroom observations. Triangulation adds depth and robustness to the analysis. Refine and define the themes iteratively. As the analysis progresses, revisit and refine the themes based on the richness of the data. Ensure that the themes accurately capture the diverse perspectives and experiences of participants. Consider member checking as a validation strategy. Share the identified themes with participants and gather their feedback. This process ensures that the interpretations align with participants' perspectives. Present the analyzed data coherently and thematically in the research report. Support findings with relevant quotes or excerpts from interviews and observations. Clearly articulate how the themes contribute to answering the research questions. This research adheres to fundamental principles of research ethics, encompassing informant consent, anonymity, and data confidentiality. Participants are provided with detailed information about the research objectives and their rights to refuse or withdraw at any point. Before their involvement, participants are presented with comprehensive information outlining the research's purpose, procedures, and potential outcomes. Informed consent is obtained from each participant, ensuring they understand and agree to participate voluntarily.

Anonymity is safeguarded to protect the privacy of participants. Identifying information is kept confidential, and pseudonyms may be used in reporting to dissociate participants from specific findings. This measure ensures that individual responses cannot be traced back to specific individuals. All collected data, including interview transcripts and observational notes, are treated with strict confidentiality. Only the research team can access the raw data, and any information sharing within the team is conducted with the utmost discretion. Data will be securely stored and archived according to ethical guidelines. Participants are assured of their autonomy throughout the research process. They have the right to refuse participation or withdraw from the study at any stage without facing consequences. This respect for participant autonomy aligns with ethical standards in research. Efforts are made to minimize any potential risks associated with participation. Open communication encourages participants to express concerns or seek clarification about the research. Any discomfort or adverse effects arising from participation are addressed promptly. The research design, including ethical considerations, has undergone scrutiny and approval by the relevant ethics committee. This ensures that the research complies with ethical standards and safeguards the well-being and rights of participants. Throughout the research process, ethical considerations are continuously monitored. Any unforeseen ethical issues are promptly addressed, and, if necessary, modifications to the research plan are made with ethical approval.

3.4 Statistical Analysis

An initial study was conducted with the experts and instructors. The survey was on a five-point Likert-type scale. Data collection was done by questionnaires which were analyzed to determine the results. The part with selection items was analyzed using frequency and percentage. The part with five scales was analyzed using mean (M), standard deviation (SD.) and correlation. To analyze the consensus of 17 experts, the researcher checked the data through mode, median, and interquartile ranges as follows:

1. The value of median should be at least 3.50.
2. The absolute difference between median and mode should not be above 1.00.
3. The value of interquartile range (IQ3 - IQ1) should not be above 1.5.

4. The IQR = Interquartile Range (IQR< 0.50 ≥ 1.00 = Congruent; IQR>1.00 = Incongruent). Mean and level of experts' opinions of selected psychology theories. The mean is shown in table 3.2 and was used to analyze the significant difference between respondents' opinions of selected psychology theories.

Table 3.1 Mean and level of experts' opinions of selected psychology theories

No.	M	Level of opinions
1	1.00 – 1.49	Strongly disagree
2	1.50 – 2.49	Disagree
3	2.50 – 3.49	Neutral
4	3.50 – 4.49	Moderately agree
5	4.50 – 5.00	Strongly agree

Note: M = mean.

The levels of the standard deviation, which is a measure of the dispersion of a set of data from its mean were as follows:

0.000-0.999	means	less spread apart data
More than 1.000	means	more spread apart data

The qualitative data from the interviews and observations were experts' opinions of selected psychology theories, qualification requirements, training approaches, and assessment.

3.5 Data Processing and Analysis

Research Focus

The focus study method was employed to research the analysis of psychological quality and improvement strategies for students in Chinese vocational schools. During the research process, key factors and views impacting students' psychological quality were extracted through methods such as focus group discussions and expert consultations. The research emphasized individual factors, the educational environment, and social factors. Focus group discussions involved the participation of nine key school educators

and psychological experts to explore factors affecting students' psychological quality collectively. Following the discussions, a range of viewpoints and suggestions were gathered. Through expert consultations, these viewpoints underwent further assessment and validation. Experts provided their insights and recommendations on these viewpoints and proceeded to rank and evaluate them. Data garnered from the focus study method underwent analysis and organization. Key factors and strategies were inductively summarized and distilled by sorting, summarizing, and classifying the data. These key factors and strategies were then verified and evaluated through methods such as questionnaire surveys mathematical and statistical analyses. With the application of the focus study method, this paper identifies the key factors impacting the psychological quality of students in Chinese vocational schools. It provides corresponding strategies and suggestions to improve students' psychological quality. This will aid vocational schools in better addressing students' mental health, offering appropriate support and guidance, thereby promoting comprehensive student development.

3.6 Statistical Analysis

An initial study was conducted with the experts and instructors. The survey was on a five-point Likert-type scale. Data collection was done by questionnaires which were analyzed to determine the results. The part with selection items was analyzed using frequency and percentage. The part with five scales was analyzed using mean (M), standard deviation (SD.) and correlation. To analyze the consensus of 17 experts, the researcher checked the data through mode, median, and interquartile ranges as follows:

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4	3.50 – 4.49	Moderately agree
5	4.50 – 5.00	Strongly agree

Note: M = mean.

The levels of the standard deviation, which is a measure of the dispersion of a set of data from its mean were as follows:

0.000-0.999 means less spread apart data

More than 1.000 means more spread apart data

The qualitative data from the interviews and observations were experts' opinions of selected psychology theories, qualification requirements, training approaches, and assessment.

CHAPTER 4
RESULTS

This chapter provides a descriptive and meaningful analysis of an ESMVT resources in Chinese Folk Traditional Crafts. The categories summarize the results of the interview and survey data analysis. The following tables present a summary of the Delphi technical analysis results. The research methodology used for the Delphi technique is explained below.

4.1 Demographic data

4.2 Descriptive Statistics of Variables

4.3 Preliminary Analysis

4.4 Normality Testing

4.1 Demographic data

The development and enhancement of psychological quality among students in Chinese vocational schools are influenced by a myriad of factors, encompassing education, training, the learning environment, motivation, autonomy, leadership, risk tolerance, continuous learning, and interdisciplinary methods. A proactive approach to addressing these factors can profoundly impact the improvement of students' psychological quality, the elevation of teaching quality, and the overall development of the academic ecosystem. Researchers gathered pertinent data through literature reviews, surveys, and interviews to conduct an in-depth analysis and propose strategies for enhancing the psychological quality of students in Chinese vocational schools. Based on these research findings, a series of intervention strategies have been put forth, including tailored training programs, the creation of supportive learning environments, the establishment of collaborative networks, the implementation of incentive systems, and the provision of opportunities for continuous learning. These strategies aim to empower students to foster positive motivation and mindsets, nurture self-directed learning abilities, enhance leadership and risk tolerance, and promote interdisciplinary learning methods, ultimately facilitating comprehensive development in students' psychological quality. To investigate the influencing factors on the psychological quality of Chinese vocational school students, we initiated a questionnaire survey, and the results of this

survey are presented below. Given the multifaceted nature of the development and enhancement of psychological quality among Chinese vocational school students, our research selected a sample of students from Zigong Vocational and Technical School, Rong County Vocational and Technical Education Center, and Dujiangyan Vocational and Technical School, encompassing over 7,000 students, to conduct our study.

4.2 Descriptive Statistics of Variables

Table 4.1 Questionnaire on Influencing Factors of Psychological Quality among Chinese Vocational School Students

Question: The psychological quality of students is influenced by multiple factors. How much do you think the following factors have an impact on your psychological well-being?

No.	Influence factor	Result		
1	Education and training	Large（68%）	Average（20%）	Small（12%）
2	Learning environment	Large（57%）	Average（34%）	Small（9%）
3	Motivation and autonomy	Large（54%）	Average（23%）	Small（23%）
4	Leadership and risk tolerance	Large（89%）	Average（3%）	Small（8%）
5	Continuous learning and interdisciplinary approaches	Large（45%）	Average（32%）	Small（23%）
6	Family environment and social support	Large（46%）	Average（50%）	Small（4%）
7	School Management and Support	Large（67%）	Average（12%）	Small（11%）
8	Cultural values and social identity	Large（69%）	Average（13%）	Small（18%）
9	Health and Lifestyle	Large（45%）	Average（32%）	Small（23%）
10	Social connections	Large（46%）	Average（50%）	Small（4%）
11	Engineering service	Large（67%）	Average（12%）	Small（11%）
12	Exam pressure	Large（89%）	Average（3%）	Small（8%）
13	Workplace adaptability	Large（45%）	Average（32%）	Small（23%）
14	Career Planning and Employment Prospects	Large（54%）	Average（23%）	Small（23%）
15	Emotional management and coping strategies	Large（89%）	Average（3%）	Small（8%）
16	Cultural differences and diverse integration	Large（45%）	Average（32%）	Small（23%）
17	Disasters and emergencies	Large（68%）	Average（20%）	Small（12%）
18	Socio economic background	Large（57%）	Average（34%）	Small（9%）
19	Gender factors	Large（67%）	Average（12%）	Small（11%）

No.	Influence factor	Result		
20	Media influence	Large（69%）	Average（13%）	Small（18%）
21	Career orientation and hobbies	Large（89%）	Average（3%）	Small（8%）
22	Student physical and mental health	Large（45%）	Average（32%）	Small（23%）
23	Educational environment and teaching methods	Large（89%）	Average（3%）	Small（8%）
24	Self-cognition and self-awareness	Large（45%）	Average（32%）	Small（23%）
25	Vocational skill development and practical experience	Large（45%）	Average（32%）	Small（23%）
26	Knowledge reserve and learning ability	Large（68%）	Average（20%）	Small（12%）
27	Social support and coaching resources	Large（67%）	Average（21%）	Small（12%）

A survey was specifically conducted targeting students from Zigong Vocational and Technical School, Rong County

Vocational and Technical Education Center, and Dujiangyan Vocational and Technical School to investigate the influencing factors on the psychological qualities of Chinese vocational school students. A total of 6,458 questionnaires were distributed, and 4,768 responses were received. After excluding 97 questionnaires with low reliability (those with identical answers to seven consecutive questions), the number of valid questionnaires was 4,671. The percentages reported in this study refer to the statistical percentage of students' choices for each option.

According to the results of the survey, the psychological quality of students is influenced by a variety of factors. However, education, learning, and the environment were identified as the major influencers. Specifically, the quality of education, characterized by curriculum design, teaching methods, teacher competency, and availability of resources, has a significant impact on students' psychological development. A comprehensive and balanced education fosters students' cognitive development, emotional intelligence, resilience, and critical thinking abilities. Learning, on the other hand, relates to students' habits, attitudes towards education, motivation levels, and self-efficacy. Our survey results revealed that students who demonstrate a positive attitude towards learning, high motivation, and strong belief in their capabilities tend to display superior psychological qualities. Lastly, the environment factor

emphasizes both the physical and psychological aspects of the students' surroundings. The physical environment, including infrastructure and learning resources, as well as the psychological environment, which comprises peer influence, family background, and societal values, can greatly affect students' psychological well-being. The survey underscores the multi-faceted nature of influences on the psychological quality of vocational school students, and hence the need for a holistic approach in addressing these aspects.

Building on the questionnaire survey, we engaged nine experts in the fields of education and psychology. Using the method of focus group research, we conducted semi-structured interviews to explore the impacts of education, learning, and environment on the psychological quality of students in Chinese vocational schools. During these interviews, each expert was asked to share their insights and perspectives based on their professional knowledge and experience. The discussion in each session was guided by, but not restricted to, a set of prepared topics, allowing for in-depth exploration and spontaneous discussion. When it comes to education, the specialists highlighted the significance of factors such as the development of curricula, the selection of instructional strategies, the qualifications of educators, and the accessibility of curricular materials. They thought about ways in which the educational system may be improved to make it more conducive to the growth of cognitive abilities, emotional intelligence, resiliency, and critical thinking. When it came to the subject of education, the discussion centered on the routines, perspectives, levels of motivation, and degrees of self-efficacy of the pupils. As a result of their opinion that characteristics such as positive learning attitudes and self-confidence might greatly improve students' psychological traits, the specialists offered techniques to encourage students to adopt these attitudes toward learning. In terms of the atmosphere, researchers investigated not only the physical but also the psychological components of the students' surrounding environment. According to the specialists, a nurturing psychological environment that is defined by positive peer influence, secure familial background, and constructive societal ideals can considerably boost pupils' psychological well-being when combined with a supporting physical environment.

Table 4.2 Analysis of Education's Influence on the Psychological Quality of Chinese Vocational School Students from the Perspective of Experts

Influential Factors Proposed by Experts	**Degree of Approval from Psychology Experts**	**Degree of Approval from Educational Experts**	**Consensus**
The effectiveness and quality of curriculum design, as well as strategies to stimulate students' thinking ability and foster learning interest through curriculum design.	92	87	Consistent
The selection and application of teaching methods, how to improve students' active participation through innovative and interactive teaching methods, and how to cultivate their social skills and problem-solving abilities.	94	89	Consistent
How to cultivate and enhance the quality of teachers, and how to enhance their teaching ability and professional literacy.	89	91	Consistent
The allocation and use of educational resources and how to fully utilize educational resources to support students' learning and development.	86	85	Consistent
The mechanism and methods of evaluation and feedback, and how to construct an effective evaluation and feedback system to promote students' learning progress.	85	96	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
The content and methods of mental health education and how to improve students' psychological quality through mental health education.	96	85	Consistent
The construction of school culture, how to establish a positive and inclusive school culture to promote students' mental health.	94	96	Consistent
The phased characteristics of students' psychological development and how to incorporate consideration of these characteristics into curriculum design.	93	85	Consistent
How to choose teaching methods that are suitable for different students based on the differences in their psychological adaptability.	94	96	Consistent
How to cultivate and improve teachers' psychological quality and educational psychological skills, as well as their psychological counselling and emotional management abilities.	95	85	Consistent
Students' psychological needs for the use of educational resources and how to optimize the allocation and use of educational resources from a psychological perspective.	89	96	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
How can students' psychological reactions to evaluation and feedback better meet their psychological needs and help them establish a positive mindset?	86	94	Consistent
How to provide targeted mental health education for students' psychological problems and needs.	91	89	Consistent
The impact of school culture on students' psychology and how to understand and shape school culture from a psychological perspective.	91	86	Consistent

The survey used a percentage-based scoring standard, with a score below 50 indicating "strongly disagree," 51 to 70 indicating "neutral," 71 to 90 indicating "moderately agree," and 91 to 100 indicating "strongly agree." This paper employs the focus group method to investigate the factors that affect the psychological quality of vocational school students in China.

Table 4.3 Main Characteristics of The Membranes Used

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Learning attitude and habits, how to cultivate students' positive learning attitude and good learning habits.	89	86	Consistent
Learning methods and strategies, how to teach effective learning methods and strategies to improve student's learning outcomes.	86	89	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Learning objectives and planning, how to help students set reasonable learning objectives and planning.	89	86	Consistent
How to help students cope with learning difficulties and challenges.	86	91	Consistent
Personalized learning how to provide personalized learning paths that adapt to individual differences among students.	91	89	Consistent
Collaborative learning, how to use Collaborative learning to improve students'social skills and team cooperation ability.	89	89	Consistent
Feedback and self-evaluation, how to use effective feedback and self-evaluation to promote students' learning.	89	86	Consistent
How to understand and enhance students' learning motivation and self-efficacy from a psychological perspective.	86	89	Consistent
How to understand and develop students' cognitive and cognitive abilities that have a significant impact on learning outcomes.	91	86	Consistent
Students' psychological identification with their learning goals and plans, and how to align these goals and plans with their intrinsic motivation.	89	91	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Students' coping strategies and resilience, how to help them develop psychological strategies to cope with learning difficulties and improve their resilience.	86	89	Consistent
How to understand and meet students' personalized learning needs from a psychological perspective based on their psychological characteristics and needs.	91	86	Consistent
How to cultivate students' social cognition and emotional intelligence in Collaborative learning.	89	91	Consistent
Learning attitude and habits, how to cultivate students' positive learning attitude and good learning habits.	86	89	Consistent

Table 4.4 The Impact of Environment on the Psychological Quality of Chinese Vocational School Students

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
School environment such as teaching facilities, educational resources, and campus culture	86	89	Consistent
Family Environment and Family Education Methods	91	86	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
The views and expectations of society towards vocational education can affect students' motivation to choose vocational schools, thereby affecting their psychological quality.	89	91	Consistent
Peer relationships may affect students' learning attitudes and behaviors.	86	89	Consistent
A good teacher-student relationship can enhance students' learning motivation, improve their academic performance, and thus enhance their psychological quality.	91	86	Consistent
Learning pressure may affect students' learning motivation and academic performance, thereby affecting their psychological quality.	4.3	4.6	Consistent
The school environment, including factors such as teacher expectations, peer behavior, and school atmosphere, can all affect students' self-awareness, emotional management skills, and interpersonal skills.	91	86	Consistent
The family environment has a significant impact on students' emotional state, self-values, and interpersonal skills.	89	91	Consistent

Influential Factors Proposed by Experts	Degree of Approval from Psychology Experts	Degree of Approval from Educational Experts	Consensus
Social environment, including social values, social pressure, etc., will affect students' psychological stress and self-cognition, and then affect their psychological quality.	91	86	Consistent
Peer relationships have a significant impact on students' self-awareness, emotional management, and interpersonal skills.	86	89	Consistent
A good teacher-student relationship can enhance students' self-esteem and confidence, help them establish good self-awareness and emotional management abilities, and enhance their psychological quality.	91	86	Consistent

This study used the Split-Half Method to test the above data and found that the Guttman half coefficient was 0.802, indicating a high degree of split-half reliability and internal consistency. In designing a systematic plan and model to improve the mental quality of vocational school students, this paperproposes a multi-layered structural model that integrates psychological health education course planning, a multi-level structure of psychological counseling services, and the school culture and learning environment. First, the paper suggests establishing a comprehensive psychological health education curriculum. The content of the course should include basic knowledge of mental health, strategies to cope with stress and difficulties, and skills to build healthy social relationships. The course should be implemented at all grade levels, covering students from enrollment to graduation. Secondly, the school should establish a multi-level psychological counseling service system. This can include individual counseling, group

counseling, hotline services, online resources, etc. Schools can employ specialized psychological counselors and regularly provide relevant training to faculty and staff, enabling them to offer appropriate support when necessary. Finally, this paper presents a model for creating a positive school culture and learning environment. This model should emphasize values such as respect, inclusiveness, cooperation, and academic achievement. By fostering such an environment, we can encourage students to actively engage in learning and community activities, which can also benefit their mental health.

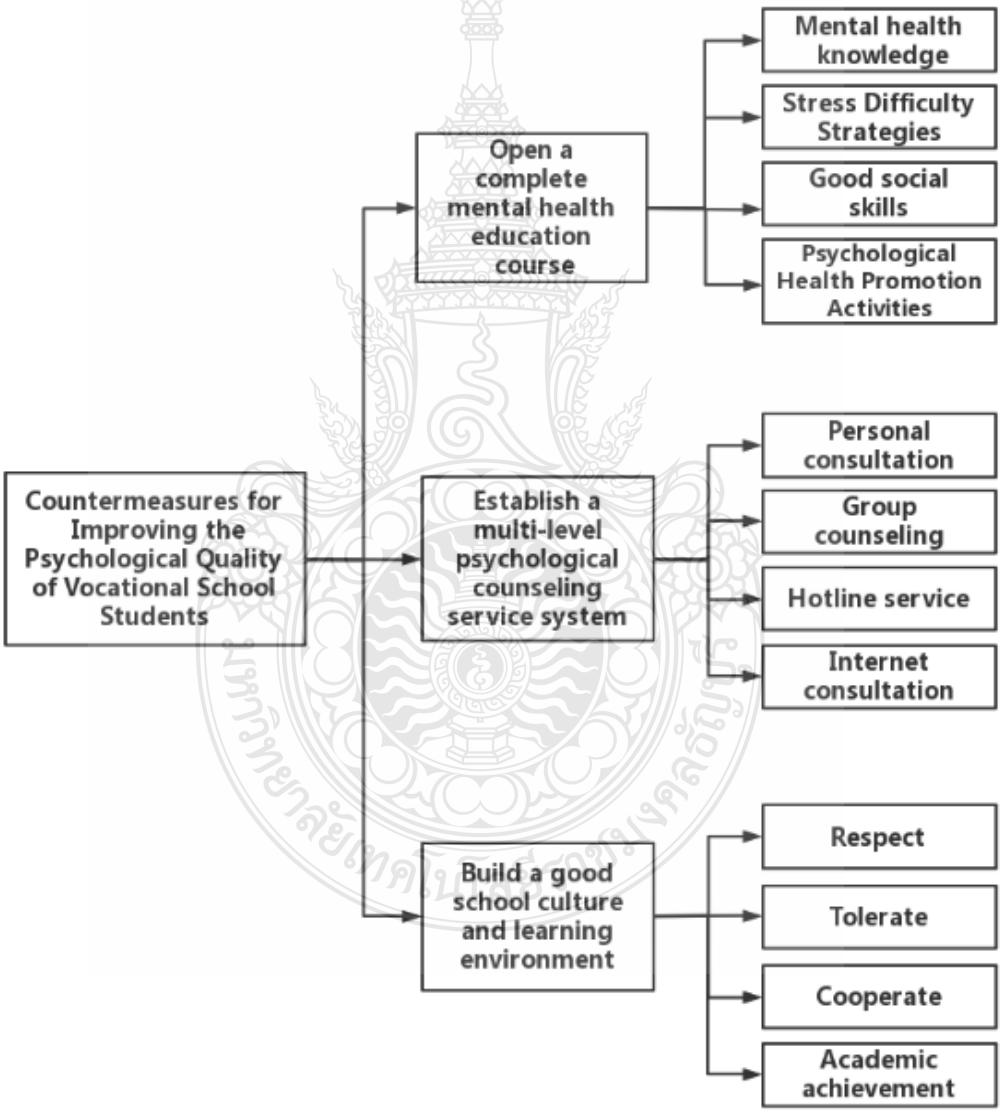

Figure 1. Model for Enhancing the Psychological Quality of Vocational School Students

To validate the effectiveness of the model, we designed a set of comparative experiments. Firstly, we selected three vocational schools as the experimental group and three vocational schools as the control group. The experimental group implemented a systematic plan based on the proposed multi-level structural model, which included conducting mental health education courses, establishing psychological counseling services, fostering a positive school culture, and creating a conducive learning environment. The control group continued to employ traditional educational methods without specific mental health interventions. Subsequently, baseline tests were conducted on students from both groups to collect preliminary data on relevant psychological characteristics. During the experiment, we regularly collected data on the mental health status of students from both groups, evaluating aspects such as emotional states, self-esteem, and social relationships. After a certain period, we conducted a comparative analysis of the mental health status of students from both groups. Through statistical methods, we assessed the extent of mental health improvement in the experimental group and compared it with the control group. The significant improvement in mental health and outstanding performance in various assessment indicators in the experimental group validated the effectiveness of the proposed multi-level structural model in enhancing the mental health of vocational school students. In addition to quantitative data analysis, we also conducted qualitative interviews and surveys to gather feedback and opinions from students, teachers, and parents regarding the implementation of the model. These qualitative data will help us gain a deeper understanding of the effectiveness of the model and identify potential issues, thereby providing valuable insights for further optimization and improvement. Finally, through comparative experiments and comprehensive analysis, this study concluded that the multi-level structural model effectively improves the mental health of vocational school students. A questionnaire on influencing factors of psychological quality among Chinese vocational school students revealed that academic pressure significantly impacts psychological well-being, with 60% reporting high levels of stress related to academic performance. Social support from family and friends was identified as a positive factor, while financial concerns negatively affected psychological well-being. Clear career aspirations positively impacted psychological quality, while increased awareness about mental health could improve it. Time

management skills were found to positively influence psychological well-being, while family support was considered crucial. However, strained family relationships negatively affected psychological well-being.

CHAPTER 5
CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This chapter provides the summary, discussion, conclusion, limitations, and contributions of the study, synthesizing learning process theories and creating an instructional design model for ESMVT resources in Chinese Folk Traditional Crafts.

5.1 Summary of Results

5.2 Discussion of Results

5.1 Summary of Results

In summary, this research underscores the emergence of micro-videos as a potent and effective learning tool within the intricate domain of traditional crafts. The overwhelmingly positive response from students and their heightened levels of engagement unveils the substantial potential that micro-videos harbor for augmenting the learning experience in this realm. However, it's imperative to note that micro-video efficacy isn't a one-size-fits-all scenario. Especially in the realm of novice learners, there exists a necessity for additional endeavors to tailor the presentation of material in a manner that is inherently friendly to beginners. Providing extra support through well-crafted written guides or supplementary videos is pivotal in surmounting these initial challenges. The research findings presented in this culmination serve as a testament to the current efficacy of micro videos and lay a robust foundation for their ongoing development and refinement. This conclusion doesn't merely encapsulate quantitative assessments; it delves into a profound understanding fostered by insights gleaned from interviews and meticulous observations. This comprehensive approach positions micro-videos as a promising avenue for advancing traditional crafts pedagogy in Thailand's unique cultural context.

5.2 Discussion of Results

In an in-depth study of the factors influencing the psychological quality of students in Chinese vocational schools, we adopted a two-stage method. First, through questionnaire surveys and data analysis, we revealed the significant impacts of education,

learning, and the environment as the three major factors on the psychological quality of students in vocational schools. A total of 6,458 questionnaires were distributed in this survey, with a valid count of 4,671 questionnaires, ensuring the reliability and validity of our research results. On this basis, we employed the focus study method, inviting nine experts in the fields of education and psychology for semi-structured interviews to gain a deeper understanding of these influencing factors. These experts, based on their professional knowledge and experience, shared their insights and perspectives, offering optimization suggestions for each factor. The main conclusions drawn are as follows: Education, learning, and the environment have a significant impact on the psychological quality of students in vocational schools. Optimizing these aspects may help improve students' psychological quality. High-quality education not only needs to focus on students' academic achievements but also their psychological quality. By improving students' psychological quality, vocational schools can better meet students' needs, promoting their growth and development. In summary, through scientific research methods and comprehensive analysis, we have gained a deeper understanding of the factors influencing the psychological quality of students in Chinese vocational schools, providing powerful support for vocational schools to formulate effective improvement strategies. To improve the psychological quality of students in Chinese vocational schools, we recommend a holistic approach.Implement integrated support programs that encompass academic and psychological well-being, offering counseling services and stress management workshops. Provide teacher training to enhance educators' ability to identify and address psychological challenges effectively. Integrate psychological well-being into the curriculum to promote emotional intelligence and interpersonal skills. Engage parents through awareness workshops and meetings. Continuously assess and upgrade the learning environment for better psychological well-being. Implement regular monitoring and assessment of students' psychological quality and encourage ongoing research in vocational education and psychological well-being to stay informed about best practices and trends. Incorporating these recommendations will empower students to thrive both academically and emotionally, fostering personal and academic growth for success in their future careers.

The Countermeasure Developing Model in Psychological Quality for Vocational School Students in China provides a comprehensive and proactive strategy to satisfying the psychological requirements of students enrolled in vocational schools. The aim of this model is to assist students in achieving success not just in their academic endeavors but also

List of Bibliography

V. K. Chattu et al., “Subjective Well-Being and Its Relation to Academic Performance among Students in Medicine, Dentistry, and Other Health Professions,” Educ. Sci., vol. 10, no. 9, p. 224, Aug. 2020, doi: 10.3390/educsci10090224.

L. Fusco, L. S. Sica, A. Parola, and L. Aleni Sestito, “Vocational identity flexibility and psychosocial functioning in Italian high school students,” Int. J. Sch. Educ. Psychol., vol. 10, no. 1, pp. 144–154, Dec. 2020, doi:10.1080/21683603.2020.1841050.

M. C. Kidwell et al., “Badges to Acknowledge Open Practices: A Simple, Low-Cost, Effective Method for Increasing Transparency,” Plos Biol., 2016, doi: 10.1371/journal.pbio.1002456.

M. S. Rad, A. J. Martingano, and J. Ginges, “Toward a Psychology Of <i>Homo Sapiens</I> : Making Psychological Science

More Representative of the Human Population,” Proc. Natl. Acad. Sci., 2018, doi: 10.1073/pnas.1721165115.

Y. E. Zhang, S. Liu, S. Xu, M. M. Yang, and J. Zhang, “Integrating the Split/Analyze/Meta-Analyze (SAM) Approach and a Multilevel Framework to Advance Big Data Research in Psychology,” Z. Für Psychol., 2018, doi: 10.1027/2151-2604/a000345.

O. Plonsky, I. Erev, T. Hazan, and M. Tennenholtz, “Psychological Forest: Predicting Human Behavior,” Proc. Aaai Conf. Artif. Intell., 2017, doi: 10.1609/aaai.v31i1.10613.

C. M. Rotello, E. Heit, and C. Dubé, “When More Data Steer Us Wrong: Replications With the Wrong Dependent Measure Perpetuate Erroneous Conclusions,” Psychon. Bull. Rev., 2014, doi: 10.3758/s13423-014-0759-2.

A. Rafaeli, S. Ashtar, and D. Altman, “Digital Traces: New Data, Resources, and Tools for Psychological-Science Research,”Curr. Dir. Psychol. Sci., 2019, doi: 10.1177/0963721419861410.

D. Giofrè, G. Cumming, L. Fresc, I. Boedker, and P. Tressoldi, “The Influence of Journal Submission Guidelines on Authors’Reporting of Statistics and Use of Open Research Practices,” Plos One, 2017, doi: 10.1371/journal.pone.0175583.

E. Norris et al., “Establishing Open Science Research Priorities in Health Psychology: A Research Prioritisation Delphi Exercise,” Psychol. Health, 2022, doi: 10.1080/08870446.2022.2139830.

S. D. Young, “Social Media as a New Vital Sign: Commentary,” J. Med. Internet Res., 2018, doi: 10.2196/jmir.8563.

M. S. Hagger, “Developing an Open Science ‘Mindset,’” Health Psychol. Behav. Med., 2021, doi:10.1080/21642850.2021.2012474.

A. R. Lyon, S. K. Brewer, and P. A. Areán, “Leveraging Human-Centered Design to Implement Modern Psychological Science: Return on an Early Investment.,” Am. Psychol., 2020, doi: 10.1037/amp0000652.

R. A. C. Ruiter and R. Crutzen, “Core Processes: How to Use Evidence, Theories, and Research in Planning Behavior Change Interventions,” Front. Public Health, 2020, doi: 10.3389/fpubh.2020.00247.

M. Karekla et al., “Best Practices and Recommendations for Digital Interventions to Improve Engagement and Adherence in Chronic Illness Sufferers,” Eur. Psychol., 2019, doi: 10.1027/1016-9040/a000349.

Z. Feng, “The Practice and Exploration of the Development of Secondary Vocational Education in my country,” Cap. Univ.Econ. Bus. Press, 2019.

R. Jiang, R. Fan, Y. Zhang, and Y. Li, “Understanding the serial mediating effects of career adaptability and career decisionmaking self-efficacy between parental autonomy support and academic engagement in Chinese secondary vocational students,” Front. Psychol., vol. 13, pp. 953550–953550, Aug. 2022, doi: 10.3389/fpsyg.2022.953550.

Zhengguang, Z, “Research on the current situation of college students’ psychological quality and its relationship with mental health, social adaptation and academic development,” 2020.

N. Z., and H. X, “Research on psychological problems of secondary vocational school students. Contemporary Education Theory and Practice,” Contemp. Educ. Theory Pract., vol. 7(1), pp. 129–132, 2015.

S. Xiaoqin, “Psychological Conditions and Educational Countermeasures of Vocational School Students,” Econ. Res. Guide,vol. 5, pp. 66–68, 2021.

L. Shumin, “Strategies for improving the psychological quality of vocational school students,” Life Sixt. Seven, 2018.

Y.-B. Liu, X.-Y. Hou, and B.-B. Chen, “Links between Chinese vocational school students’ perception of parents’ emotional support and school cooperation climate and their academic performance: The mediating role of school belonging,” Front. Psychol., vol. 13, pp. 952001–952001, Jul. 2022, doi: 10.3389/fpsyg.2022.952001.

E. A. Hanushek and L. Wössmann, “Does Educational Tracking Affect Performance and Inequality? Differences- in Differences Evidence Across Countries,” Econ. J., vol. 116, no. 510, pp. 63–76, 2006.

J. Kuzmina and M. Carnoy, “The effectiveness of vocational versus general secondary education,” Int. J. Manpow., vol. 37, no. 1, pp. 2–24, 2016.

P. Loyalka et al., “The Impact of Vocational Schooling on Human Capital Development in Developing Countries: Evidence from China,” World Bank Econ. Rev., p. lhv050, Aug. 2015, doi: 10.1093/wber/lhv050.

J. Xu, “Reflections and comparative studies on literacy of students in vocational track: Based on results of PISA 2012,”Comp. Educ. Rev, vol. 37, pp. 30–35, 2015.

“Analysis and Strategies of College Chinese learning self-efficacy of students in Higher Vocational Colleges,” Int. J. Adv.Res. Educ. Soc., Apr. 2022, doi: 10.55057/ijares.2022.4.1.13.

Y. Ling, S. J. Chung, and L. Wang, “Research on the reform of management system of higher vocational education in China based on personality standard,” Curr. Psychol., vol. 42, no. 2, pp. 1225–1237, Feb. 2021.

E. Fern, Advanced Focus Group Research. SAGE Publications, Inc., 2001. doi: 10.4135/9781412990028.

R. A. Krueger and M. A. Casey, “Focus Group Interviewing,” Handb. Pract. Program Eval., pp. 506–534, Aug. 2015, doi:10.1002/9781119171386.ch20.

D. Stewart, P. Shamdasani, and D. Rook, Focus Groups. SAGE Publications, Ltd., 2007. doi: 10.4135/9781412991841.

“The psychology of attitudes. A.H. Eagly & S. Chaiken. Fort Worth, TX: Harcourt, Brace, & Janovich, 1993, 794 pp.

Reviewed by Christopher Leone, University of North Florida,” Psychol. Mark., vol. 12, no. 5, pp. 459–466, Aug. 1995, doi:10.1002/mar.4220120509.

M. Hewstone, W. Stroebe, J.-P. Codol, and G. Stephenson, “1988: Introduction to Social Psychology. A European Perspective. Oxford: Blackwell.,” 1990, pp. 203–203, Dec. 1990, doi: 10.1515/9783112469927-006.

D. M. Mackie, T. Devos, and E. R. Smith, “Intergroup emotions: Explaining offensive action tendencies in an intergroup context.,” J. Pers. Soc. Psychol., vol. 79, no. 4, pp. 602–616, 2000, doi: 10.1037//0022-3514.79.4.602.

L. Vicsek, “A Scheme for Analyzing the Results of Focus Groups,” Int. J. Qual. Methods, vol. 6, no. 4, pp. 20–34, Dec. 2007,doi: 10.1177/160940690700600402.

C. W. Kelman, A. J. Bass, and C. D. J. Holman, “Research use of linked health data — a best practice protocol,” Aust. N. Z.

J. Public Health, vol. 26, no. 3, pp. 251–255, Jun. 2002, doi: 10.1111/j.1467-842x.2002.tb00682.x.

J. French and B. Raven, The bases of social power, vol. 6. 1959.

T. Sangsawang, “Instructional Design Framework for Educational Media,” Procedia - Soc. Behav. Sci., vol. 176, pp. 65–80,Feb. 2015, doi: 10.1016/j.sbspro.2015.01.445.

Y. Li, “Utilizing the Delphi Technique to Develop a Self-Regulated Learning Model,” J. Appl. Data Sci., vol. 4, no. 3, pp.254–263, Sep. 2023, doi: 10.47738/jads.v4i3.124.

Y. Zhang, “Assessing Factors and Simulating Innovation: A Study of Innovative Capacities Among Data Science Professionals in China,” J. Appl. Data Sci., vol. 4, no. 3, pp. 213–228, Sep. 2023, doi: 10.47738/jads.v4i3.123.

APPENDICES

Appendix A

- List of experts

The experts were:

1. Prof. Chen Peng. Beijing University, China.
2. Prof. Shen Minghong. Capital Normal University, China.
3. Prof. Cao Zaojie. Southwest University, China.
4. Prof. Huang Yingjie. Southwest University, China.
5. Prof. XieHua. Sichuan University of Science & Engineering , China.
6. Prof. Liu Zhiwei. Sichuan University of Science & Engineering , China.
7. Prof. Zhang Yi. Sichuan University of Science & Engineering , China.
8. Prof. Li Bo. Sichuan University of Science & Engineering , China.
9. Prof. Zhao Xue. Sichuan University of Science & Engineering , China.

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27 July, 2023

Dear Prof. Chen Peng. Beijing University, China.
Subject: Respectfully requesting a letter of invitation of experts for Ph.D. Dissertation

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Mrs. Li Shuang, Doctor of Science Program in Technical Education (Vocational Education) Rajamangala University of Technology Thanyaburi, who has been working on the dissertation titled "Quantitative Analysis of Educational Techniques for Psychological Development in Vocational Students in China". under the supervision of Assistant Professor Dr. Thosporn Sangsawang. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

If you have any questions or need further information, please feel free to contact Mrs.Li Shuang, on the e-mail: shuang_l@mail.rmutt.ac.th

Yours sincerely,

(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education

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27 July, 2023

Dear Prof. Shen Minghong. Capital Normal University, China.
Subject: Respectfully requesting a letter of invitation of experts for Ph.D. Dissertation

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Yours sincerely,

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Dear Prof. Cao Zaojie. Southwest University, China.
Subject: Respectfully requesting a letter of invitation of experts for Ph.D. Dissertation

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Yours sincerely,

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27 July, 2023

Dear Prof. Huang Yingjie. Southwest University, China.
Subject: Respectfully requesting a letter of invitation of experts for Ph.D. Dissertation

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27 July, 2023

Dear Prof. XieHua. Sichuan University of Science & Engineering , China.
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Yours sincerely,

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27 July, 2023

Dear Prof. Liu Zhiwei. Sichuan University of Science & Engineering , China.
Subject: Respectfully requesting a letter of invitation of experts for Ph.D. Dissertation

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Yours sincerely,

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Dear Prof. Li Bo. Sichuan University of Science & Engineering , China.
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If you have any questions or need further information, please feel free to contact Mrs. Li Shuang, on the e-mail: shuang_l@mail.rmutt.ac.th

Yours sincerely,

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