



A DEVELOPMENT OF AN INSTRUCTIONAL MODEL IN MENTAL HEALTH
EDUCATION BASED ON POSITIVE PSYCHOLOGY THEORY AND
COLLABORATIVE LEARNING APPROACH TO ENHANCE SELF-EMOTIONAL
REGULATION ABILITY FOR UNIVERSITY STUDENTS IN CHINA

ZHU YAN

A Thesis Submitted to the Graduate School of Naresuan University
in Partial Fulfillment of the Requirements
for the Doctor of Education in Curriculum and Instruction

2024

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Thesis entitled "A Development of an Instructional Model in Mental Health Education Based on Positive Psychology Theory and Collaborative Learning Approach to Enhance Self-emotional Regulation Ability for University Students in China"

By Zhu Yan

has been approved by the Graduate School as partial fulfillment of the requirements for the Doctor of Education in Curriculum and Instruction of Naresuan University

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Title	A DEVELOPMENT OF AN INSTRUCTIONAL MODEL IN MENTAL HEALTH EDUCATION BASED ON POSITIVE PSYCHOLOGY THEORY AND COLLABORATIVE LEARNING APPROACH TO ENHANCE SELF-EMOTIONAL REGULATION ABILITY FOR UNIVERSITY STUDENTS IN CHINA
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ABSTRACT

The objectives of this research were to: 1) study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China, 2) develop and assess the quality of an instructional model, 3) study the results of university students' self-emotional regulation ability after the implementation of an instructional model and 4) students' satisfaction with an instructional model. Four research and development steps were used for instructional model development. The instructional model was implemented with 40 freshmen from Guangxi University of Science and Technology in China. This class was selected by clustered random sampling from a total of 10 classes, that was class 1 to 10. Data were analyzed using descriptive statistics, t-test dependable, and content analysis.

The research findings are revealed as follows:

1. The findings of studying students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented are presented as follows:

1.1 The findings of studying students' self-emotional regulation problems revealed that students face both personal and non-personal problems.

1.2 The findings of experts' interviews on how positive psychology theory and collaborative learning approach are implemented to enhance students' self-emotional regulation ability are presented as follows:

Positive psychology promotes a positive mindset as vital and that it should involve creating a positive and safe learning environment, fostering positive interpersonal relationships, providing strengths-based feedback and appreciation that help encourage students to identify and use positive self-evaluations, and emphasizing personal growth and development. Collaborative learning involves active student participation and interaction. The results of the interviews showed that group dialogue, jigsaw activities, group discussions, and Q-and-A exercises could enhance students' self-emotional regulation ability.

2. The findings of an instructional model development and quality assessment revealed that:

2.1 An instructional model was developed with 5 components including principle, objective, content, learning process, and evaluation. The instructional model consisted of 5 steps.

2.2 The developed instructional model was at the highest level of appropriateness (\bar{X} = 4.59, S.D.= 0.69), and the instructional model manual was at the highest (\bar{X} = 4.51, S.D.= 0.80).

2.3 The instructional model based on positive psychology theory and collaborative learning approach had an effective index of 0.55.

3. Students' self-emotional regulation ability after the implementation of the instructional model was significantly higher than before at 0.01.

4. Students' satisfaction with the instructional model learning process was at the highest level ($\bar{X}=4.78$, $SD= 0.47$). Students expressed positive views towards an instructional model learning process.



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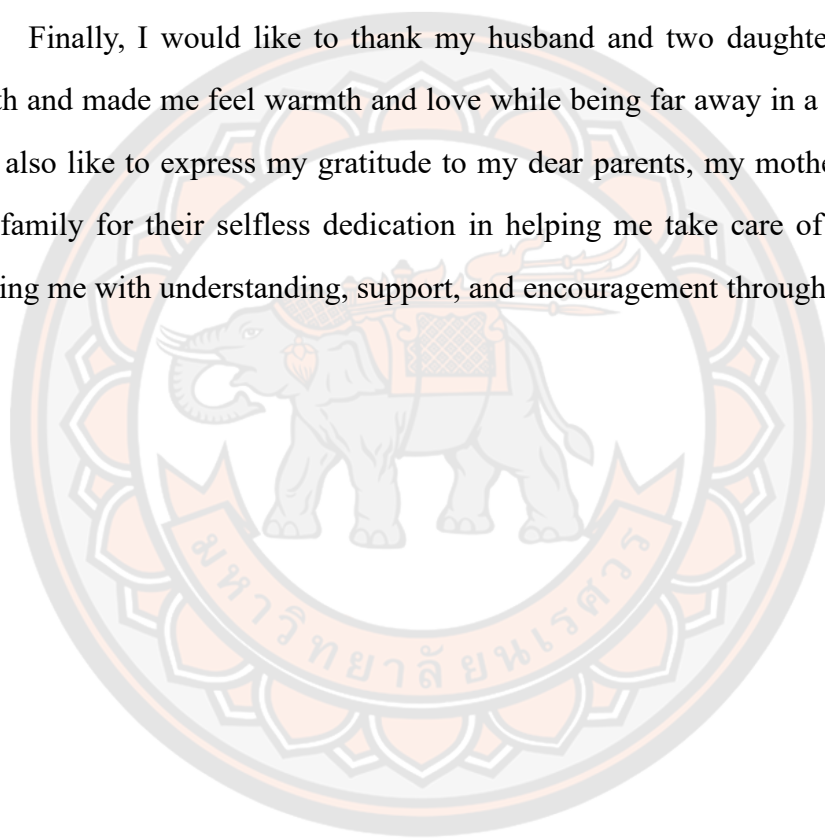


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CHAPTER I

INTRODUCTION

Background of the Study

Emotions play a pivotal role in shaping our perception of the world and how we interact within it. Individuals with strong self-emotional regulation ability showed greater activity in brain regions associated with positive emotional regulation. They are also less likely to experience symptoms of depression and anxiety (Uchida et al., 2015). Ong et al. (2006) found that individuals with strong self-emotional regulation ability are more resilient in the face of stress and adversity. They are better able to cope with negative events and recover more quickly from them. According to Heller et al. (1995), individuals with poor self-emotional regulation ability are more likely to experience symptoms of anxiety and depression, as well as other mental health problems. The findings from these studies underscore the critical role that the ability to self-regulate their emotions plays in overall well-being and mental health, suggesting that its development can empower individuals to better manage stress, negative emotions, and adversity, ultimately leading to improved mental health and life satisfaction. It is important to everyone.

For students, the ability to regulate emotional responses is of paramount importance as they navigate the multifaceted challenges of academic and social environments. Students who score high on measures of emotional regulation have better academic achievement and are more engaged in their learning than those with lower scores (Davis et al., 2008). Building upon the framework of emotional intelligence (EI) proposed by Salovey and Sluyter (1997) and Brackett et al. (2006) investigated how the ability to regulate emotions impacts upon social behavior, highlighting that emotional regulation is positively correlated with social competence in children and adolescents

(Simpson et al., 2007). This ability allows students to effectively manage interpersonal conflicts and foster positive relationships with peers. According to Okado & Bierman (2015), emotional regulation ability has been linked to a reduction in externalizing behavior problems among students, where those struggling with emotional regulation are more prone to disruptive and aggressive behavior, whereas those proficient in emotional regulation can better manage their conduct and avoid negative outcomes. As highlighted by Ciarrochi et al. (2020), emotional regulation ability also positively correlates with resilience in adolescents, equipping students with the tools needed to cope with stress, overcome adversity, and bounce back from setbacks. In summary, self-emotional regulation ability is a vital skill for students, impacting their academic success, social interactions, and overall well-being.

A recent study conducted by a research team at the Institute of Psychology, Chinese Academy of Sciences, analyzed 6,859 valid questionnaires and found that depression patients tend to be younger, with 35.32% aged between 18 and 24, and university students accounting for a relatively high proportion (Institute of Psychology, 2023a). Furthermore, Han's research found that university students exhibited a lower average score in effectively regulating negative emotions and heightened demand for psychological services related to emotional regulation, such as how to regulate negative emotions brought on by interpersonal conflicts, academic stress, and employment stress, with 43.15% seeking such services (Han, 2023). These students displayed an increased propensity for conflicts, even physical altercations, over trivial matters, highlighting their inadequate self-emotional regulation ability.

The primary root cause of this deficiency can be attributed to several factors, with the outdated instructional models prevalent in universities emerging as a prominent issue. Traditional instructional models, as discussed by Pei (2019) and Pi (2021), predominantly involve one-way communication, and minimal teacher-student interaction, inhibiting teachers from addressing individual students' emotional needs. The shift to online learning during the COVID-19 pandemic further exacerbated this

issue, as limited communication between teachers and students hindered emotional development. Consequently, it has become increasingly challenging for Chinese university students to enhance their self-emotional regulation ability through these conventional instructional models.

Recognizing the imperative need for improvement, the researcher seeks to develop a novel instructional model grounded in positive psychology theory (Jin et al., 2021) and collaborative learning approach to enhance students' self-emotional regulation ability in her university. By integrating positive psychology theory (Zhang et al., 2020) and collaborative learning approach (Lu, 2014), universities hold the potential to significantly benefit their students by enhancing their self-emotional regulation ability. However, there is a notable absence of research exploring the application of this instructional model in mental health education courses within Chinese universities.

Positive psychology theory encourages individuals to shift their focus from weaknesses to strengths, promoting a resilient and optimistic mindset that facilitates enhanced emotional regulation. By identifying personal strengths and adopting positive coping mechanisms, individuals can effectively regulate their emotions and respond constructively to challenges. Additionally, fostering gratitude and positive relationships through this theory can lead to enhanced emotional regulation and reduced symptoms of depression and anxiety (Nezlek et al., 2018). Social support within this framework serves as a vital resource, buffering against stress and enabling effective emotional regulation (Scheuplein, 2022).

While positive psychology theory provides valuable insights into developing resilience and optimism, it is not without its limitations. Applied in isolation, positive psychology theory may lack the tools necessary to address the social and environmental factors that influence emotional well-being. Human emotions are inextricably linked to social interactions and environmental stimuli, and simply emphasizing individual strengths may overlook collective factors in emotion regulation (Kashdan & Biswas-

Diener, 2014). This is particularly important in educational settings, where students often face challenges that are beyond their individual capabilities and require concerted efforts to effectively address. To overcome these limitations, it is important to supplement positive psychology theory with collaborative learning approach.

On the other hand, collaborative learning approach, which emphasizes communication and collaboration among students and teachers, and among students and students, directly contributes to enhancing self-emotional regulation ability. Collaborative learning approach not only encourages interpersonal communication and shared experiences, but also provides a platform for addressing complex negative emotions in a supportive social environment. Students engaged in collaborative learning programs demonstrate superior emotional regulation ability (Järvenoja, 2019) and better memory retention of collaborative learning components (Johnson and Johnson, 1987). This approach allows students to overcome challenges and regulate negative emotions through peer collaboration and communication (Wang and Degol, 2014). Furthermore, collaborative learning cultivates emotional resilience, an asset both academically and in broader social contexts (Brackett and Katulak, 2007). Collaborative environments foster a sense of community and shared responsibility, enabling students to collectively address challenges, learn each other's coping strategies, and develop a more comprehensive set of emotion regulation ability.

Combining these two approaches can indirectly enhance students' self-emotional regulation ability (Gokhale, 1995). The incorporation of positive psychology theory into the collaborative learning approach creates a supportive and motivating learning environment, promoting student engagement and growth (Seligman & Csikszentmihalyi, 2000; Dweck, 2006). When educators integrate positive psychology theory and facilitate collaborative learning approach, they create a classroom culture that encourages learning, resilience, and personal development (Seligman & Csikszentmihalyi, 2000; Johnson et al., 2014).

In conclusion, combining positive psychology theory with collaborative

learning approach offers a promising instructional model to enhance students' self-emotional regulation ability. This holistic approach addresses multiple aspects of emotional well-being, equipping students with valuable skills for navigating both their academic journey and life beyond the classroom. However, no research has been conducted to date on how to integrate positive psychology theory with a collaborative learning approach to develop an instructional model to enhance Chinese university students' self-emotional regulation ability. Therefore, the researcher is interested in conducting a study on this.

Research Question

1. What are the self-emotional regulation problems faced by students, and how can positive psychology theory and collaborative learning approach be implemented to enhance self-emotional regulation ability for university students in China?
2. What is the quality of an instructional model based on positive psychology theory and collaborative learning approach that can be developed to enhance the self-emotional regulation ability for university students in China?
3. How effective is an instructional model based on positive psychology theory and collaborative learning approach in enhancing the self-emotional regulation ability for university students in China?
4. How satisfied are university students with an instructional model based on positive psychology theory and collaborative learning approach to enhance the self-emotional regulation ability?

Research Objective

1. To study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China.
2. To develop and assess the quality of an instructional model based on positive

psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

3. To study the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach.

3.1 To study self-emotional regulation ability before and after studying with the developed instructional model.

3.2 To compare self-emotional regulation ability before and after studying with the developed instructional model.

4. To explore students' satisfaction with an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

Research Hypothesis

Students' self-emotional regulation ability after implementing an instructional model based on positive psychology theory and collaborative learning approach is significantly enhanced.

Scope of the Research

The scope of this study is explained in four stages, as follows:

Stage 1: Studying students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China.

To study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance university students' self-emotional regulation ability, the researcher used the following scope:

1. Scope for Data Source

Data would be retrieved from:

2.1 Students: 100 freshmen from five majors at Guangxi University of Science and Technology in China were randomly selected for an interview to get information related to self-emotional regulation problems.

2.2 Four experts who have conducted research using either positive psychology theory or collaborative learning approach to enhance students' self-emotional regulation ability or related area were interviewed to get information related to positive psychology theory and collaborative learning approach principles and important features, the role of learners and instructor, learning activities and how they can be implemented to enhance university students' self-emotional regulation ability. All had at least a Ph.D. in a related field or relevant research experience. The interview structure of these four experts was examined by the five experts invited in the second step.

2. Scope for Variables

The variables studied at this stage would be

2.1 Self-emotional regulation problems.

2.2 Positive psychology theory and collaborative learning approach principles and important features, the role of learners and instructor, learning activities, and how they can be implemented to enhance self-emotional regulation ability for university students in China.

Stage 2: Developing and assessing the quality of an instructional model in mental health education based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

To develop and assess the quality of an instructional model in mental health education based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China, the following

scope was considered.

1. Scope for the Content

The content that was used at this level included introduction, adaptation, interpersonal relationships, and understanding of love. This instructional model was implemented for 4 weeks.

2. Scope for Data Source

At this level, data was retrieved from the following sources.

2.1 Five experts were selected to check, and evaluate the quality of the developed instructional model, and gave suggestions on the design of instructional activities based on their own experience. These experts were made up of majors in curriculum and instruction, research and development, measurement and evaluation, and psychology. It should be noted that all these experts had at least a Ph.D. degree or professorial qualification and at least a 5-year teaching or researching experience in their various areas of specialization.

2.2 In addition, a class of 35 freshmen at Guangxi University of Science and Technology was utilized to try out four units of an instructional model based on positive psychology theory and collaborative learning approach with pre-test and post-test before and after the implementation of the instruction. This group of students was not part of the sample population.

3. Scope for the Variable

The following variables were considered in the instruction, which used an instructional model based on positive psychology theory and a collaborative learning approach to enhance self-emotional regulation ability:

3.1 Appropriateness

3.2 Effectiveness

Stage 3: Studying the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach.

For the researcher to study the results of university students' self-emotional regulation ability after learning with an instructional model based on positive psychology theory and collaborative learning approach, the following scope was considered:

1. Scope for the Content

The content that was used at this level included introduction, adaptation, interpersonal relationships, understanding of love, self-awareness, and life education. This instructional model was implemented for 6 weeks (4 hours per week). The researcher taught two sessions per week (2 hours per session).

2. Scope for Data Source

The population of this study included freshmen from the Guangxi University of Science and Technology. From the population of the study, a sample was drawn. The sample included 40 freshmen from a mental health education program. This class was selected by clustered random sampling from a total of 10 classes, that was class 1 to 10.

3. Scope for Variables

At this stage, two variables were taken into consideration:

3.1 Independent variable: Learning process with an instructional model based on positive psychology theory and collaborative learning approach.

3.2 Dependent variable: Self-emotional regulation ability.

Stage 4: Exploring students' satisfaction towards learning with an instructional model in mental health education based on positive psychology theory and collaborative learning approach to enhance university students' self-emotional regulation ability.

In exploring students' satisfaction with learning with an instructional model in mental health education based on positive psychology theory and collaborative learning

approach, the researcher used the following scope:

1. Scope for the Content

The content considered students' satisfaction with the learning process, learning content, learning activities, learning atmosphere, instructional materials, the role of the instructor, evaluation, and self-emotional regulation ability development.

2. Scope for Data Source

Data was obtained from the sample group. That was 40 freshmen who were used for instructional model implementation in mental health education.

3. Scope for the Variables

Students' satisfaction with learning with an instructional model based on positive psychology theory and collaborative learning approach.

Definition of Terms

The following definitions are provided to help clarify the terms used in this study:

1. Positive psychology theory refers to a scientific approach that systematically explores and investigates positive emotions, character strengths, and meaningful experiences, with the aim of understanding and promoting the flourishing and well-being of university students. It serves as the theoretical foundation for the development of an instructional model in mental health education, emphasizing empirically supported interventions to facilitate positive outcomes and enhance self-emotional regulation ability for university students in China.

2. Collaborative learning means an instructional approach that fosters active engagement and joint efforts among learners in small groups, aiming to achieve common learning objectives. It involves shared responsibilities, positive interdependence, and a supportive learning environment where students actively interact, engage in constructive dialogue, and collectively construct knowledge. In this study, students formed groups with fixed members, each group member was divided

into different roles for each topic session, with students sharing positive strategies for emotion regulation around the topic, group members observing and recording, and providing positive feedback to enhance students' self-emotional regulation ability.

3. Mental health education

A general studies course for freshmen. Based on the characteristics and laws of the psychological development of university students, instructors use the relevant theoretical knowledge and skills of psychology and pedagogy and other disciplines, through scientific methods and approaches, to solve the psychological problems of university students, cultivate and develop the psychological quality of university students, improve the level of mental health of university students as the basic goal of educational activities. The content that would be used at this level included introduction, adaptation, interpersonal relationships, understanding of love, self-awareness, and life education.

4. Instructional Model based on positive psychology theory and collaborative learning approach: This refers to instructional principle, objective, content, learning process, and evaluation, based on findings from the positive psychology theory and collaborative learning approach. The goal is to enhance students' self-emotional regulation ability. This instructional model is divided into five steps:

4.1. Concept explanation and task publication: The instructor provides a thorough introduction to topics related to mental health education and important theories of self-emotional regulation. Additionally, the instructor inspires students to reflect on their previous experiences of self-emotional regulation. Publics a specific task for the day while the instructor sets positive goals and encourages students to think positively.

4.2 Formation of supportive learning groups and division of labor: Students are grouped and establish group norms for emotional safety. Each group is assigned specific roles for positive psychology theory and collaborative learning sessions, including a leader, recorder, sharer, observer, and reporter. While group members

remain constant throughout the course, allocating roles varies for each session.

4.3. Collaboration and identification of strengths: This stage reflects the division of labor and active collaboration within the group to solve problems together and regulate self-emotions. The leader guides group members to participate in discussions based on the topic provides examples, clarifies task objectives, and facilitates peer support and feedback. The sharer primarily focuses on sharing positive strategies and processes for regulating non-positive emotions. The recorder is responsible for documenting the group's discussions, while the observer pays close attention to the overall performance of group members and identifies the strengths of the peers. Upon completing the task, the observer provides positive feedback regarding the group's collaborative efforts. During this stage, students can practice self-emotional regulation strategies actively and create a positive classroom environment through collaboration and participation.

4.4. Sharing and gratitude expression: This step is a reflection on the group's growth and progress and summary of experiences, reinforcing the positive collaborative learning process. The designated reporter listens attentively throughout the group's discussions, and once the sharer has completed their presentation and the observer has provided positive feedback, the reporter compiles the group's learnings and presents them to the class. They will express gratitude to the instructor and peers at the end of their sharing, which can reflect positive relationships and social support.

4.5. Growth and progress feedback: In this stage, the instructor refrains from interrupting students while they provide their group summaries. After students have completed their summaries, the instructor offers growth and progress feedback based on the group's presentation and the utilization of emotional regulation steps. The feedback is primarily aimed at encouragement and appreciation.

5. Self-emotional regulation ability

In this study, self-emotional regulation can be defined as the behavioral process by which individuals effectively regulate their responses to non-positive

emotions (e.g., anger, frustration, fear, sadness, and surprise) in a variety of situations. The distinctive characteristic of emotion regulation involves initiating a goal to shape the trajectory of emotions. Self-emotional regulation ability refers to an individual's behavioral ability to effectively regulate his or her nonpositive emotional responses in a variety of situations. It includes the following aspects of ability:

5.1 Situation modification: It refers to the process of actively altering aspects of a current situation to regulate emotions. This strategy involves making changes to the environment or context to reduce or eliminate factors that may trigger negative emotions. By adjusting the situation, individuals can prevent or mitigate the onset of adverse emotional responses. It is a proactive approach within the broader emotion regulation process, allowing individuals to modify their surroundings to achieve a more favorable emotional outcome.

5.2 Attentional deployment: refers to the behavior of adjusting attention to influence emotions. This attentional redirection can play an important role in the development of subsequent behaviors. It begins with awareness, and this self-awareness is the first step in initiating behavioral change. Attentional attune can influence the decisions individuals make based on their emotions. When people use attentional tuning to shift their attention away from negative emotions, they are more likely to make decisions that are consistent with their long-term goals and values.

5.3 Strategy choice: It refers to the cognitive process of deciding which emotional regulation tactic to employ in each situation. It involves assessing the current emotional context, personal goals, and available resources to select the most effective regulatory approach. This decision-making process is critical for achieving desired emotional outcomes and maintaining emotional balance, as it determines the pathway an individual will take to manage their emotional responses. Strategy choice reflects the individual's ability to adaptively navigate different regulatory options to optimize emotional well-being.

6. Problems: pertain to the difficulties students encounter while practicing self-emotional regulation. In this study, the problems of self-emotional regulation refer to the factors that impede students from effectively regulating their own emotions.

7. Quality of an instructional model

7.1 Appropriateness: refers to how well-suited something or someone is for a specific purpose. In the case of an instructional model based on positive psychology theory and collaborative learning approach to enhance an individual's emotional regulation ability, appropriateness means that each component of the teaching model is relevant and accurate. The appropriateness of this instructional model is assessed through the examination of data obtained from the evaluation of the instructional model and the instructional model manual, employing a 5-level Likert scale. An average score of 3.50 or higher signifies the appropriateness of an instructional model grounded in positive psychology theory and a collaborative learning approach aimed at enhancing self-emotional regulation ability capabilities.

7.2 Effectiveness: refers to the extent to which an instructional model based on positive psychology theory and a collaborative learning approach can fulfill its purpose of enhancing students' self-emotional regulation ability. The instructional model based on positive psychology theory and a collaborative learning approach to enhance students' self-emotional regulation ability is effective if the value for Effectiveness (E.I.) is 0.50 or above.

8. Satisfaction: refers to positive feelings or thoughts about an instructional model or a learning experience that is at least as good as predicted. As a result, students' satisfaction indicates that the components under review (principle, objective, content, learning process, and evaluation) are successfully implemented to enhance self-emotional regulating ability. The students will self-assess their self-emotional regulating ability. The instructional model is regarded as satisfactory if the students agree that it aided in an enhancement of their self-emotional regulation ability.

Benefits of the Research

This study represents an innovative approach to education by amalgamating positive psychology theory and a collaborative learning approach to develop a model aimed at enhancing university students' self-emotional regulation ability. Below are the expected benefits of this research:

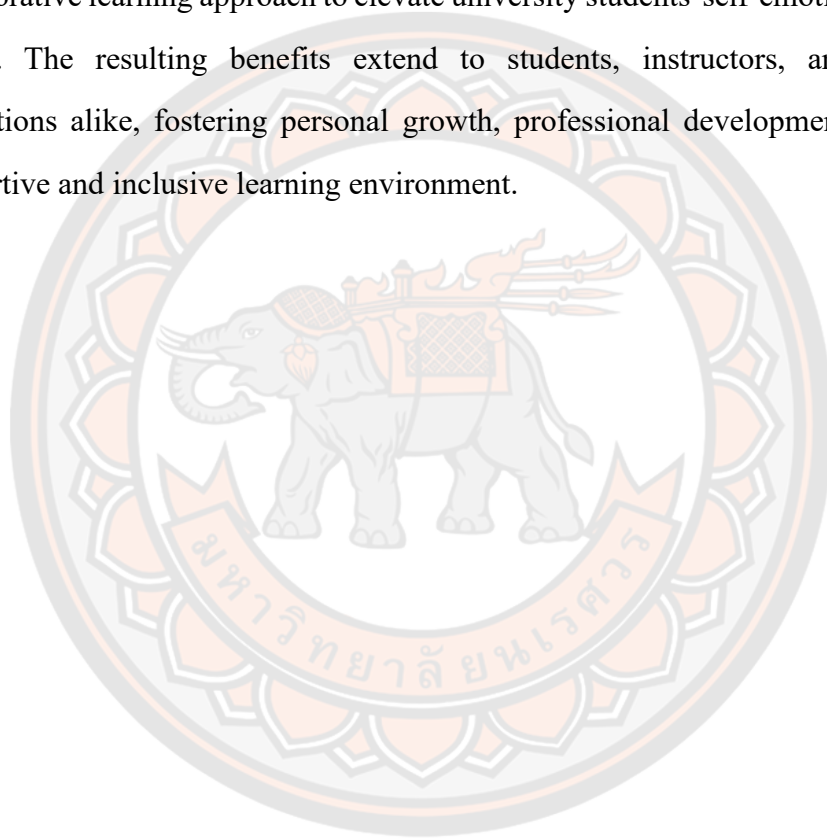
1. **Benefits for Students:** This research offers students several invaluable advantages. Firstly, it equips them with an evidence-based strategy to bolster their mental health and emotional well-being. Through the enhancement of self-emotional regulation ability via this instructional model, students can attain a heightened sense of control over their emotional responses. This newfound emotional intelligence can translate into improved academic performance, more harmonious interpersonal relationships, and an overall sense of well-being. Additionally, the incorporation of collaborative learning approach fosters a supportive and inclusive learning environment. This not only enhances students' academic experiences but also strengthens their sense of belonging and connection within the university community.

2. **Benefits for Instructor:** This research provides instructors with a revolutionary model for mental health education, firmly rooted in positive psychology theory and collaborative teaching strategies. Instructors can leverage this model to cultivate their teaching prowess and devise effective instructional techniques for imparting self-emotional regulation ability to students. By utilizing this innovative approach, instructors can become facilitators of students' emotional growth, contributing to a more holistic and impactful educational experience.

3. **Benefits for Universities:** The research carries profound implications for educational institutions. It offers a comprehensive framework for mental health education that is based on positive psychology principles and collaborative learning methodologies. Universities can utilize this research to create new programs or enhance existing ones, focusing on the development of students' self-emotional regulation ability. This, in turn, can lead to improved mental health outcomes for students,

contributing to a healthier and more resilient student body. Furthermore, the adoption of this innovative approach can enhance the reputation of educational institutions as forward-thinking centers of learning that prioritize the holistic development of their students.

In summary, this research serves as a beacon of innovation, introducing a groundbreaking educational approach that integrates positive psychology theory and collaborative learning approach to elevate university students' self-emotional regulation ability. The resulting benefits extend to students, instructors, and educational institutions alike, fostering personal growth, professional development, and a more supportive and inclusive learning environment.



CHAPTER II

LITERATURE REVIEW

The primary goals of this study were to 1) study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance the self-emotional regulation ability for university students in China, 2) develop and assess the quality of an instructional model based on positive psychology theory and collaborative learning approach to enhance the self-emotional regulation ability for university students in China, 3) study the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach, 4) explore students' satisfaction towards an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China. This chapter discusses instructional model development, theoretical foundations, and previous research on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability and suitable instructional strategies, related research, and the conceptual framework.

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1. Instructional Model Development

1.1 Definition of Instructional Model

In the realm of scholarly discourse, different scholars and researchers have offered diverse definitions for the term "instructional models."

Gagné (1970) defines an instructional model as a "prescription for a systematic arrangement of the components of instruction," which are designed to promote the learning of specific subject matter.

In the definition of Gustafson et al. (1997), the instructional model consists of at least four major activities: "1. Analysis of the setting and learner needs; 2. Design of a set of specifications for an effective, efficient, and relevant learner environment; 3. Development of all learner and management materials; 4. Evaluation of the results of the development both formatively and summatively".

According to Bloom (1956), an instructional model could be defined as a systematic approach or strategy used by educators to facilitate the development of cognitive skills at various levels of the taxonomy. This could involve choosing appropriate teaching methods, materials, and activities that align with the desired cognitive learning outcomes.

Merrill (2002) refers to an instructional model that could be defined as a systematic approach that incorporates these five principles-problem-centered learning, activation, demonstration, application, and integration into the design of a learning experience.

Sun, & Wang (2017, P.2) define an instructional model as a strategic system of teaching procedures and methods that must be followed during the teaching process, based on educational theories and pedagogical principles. This system encompasses the combination of various instructional elements, teaching procedures, and their corresponding strategies within the teaching process.

In summary, an instructional model is a systematic approach used by educators to promote the development of cognitive skills, a strategic system of

instructional procedures and methods guided by educational theories and pedagogical principles. It includes a combination of pedagogical elements and strategies in the teaching and learning process.

The instructional model developed in this study is a framework that incorporates positive psychology theory and collaborative learning approach. It is guided by educational theories and pedagogical principles and provides a systematic organization of instructional procedures and approaches. The model includes principle of positive psychology theory and collaborative learning approach, objective aimed at enhancing students' self-emotional regulation ability, content based on enhancing students' self-emotional regulation abilities, learning process that integrates positive psychology theory and collaborative learning approach, and evaluation of students' satisfaction with the instructional model. By applying this model, educators tailor teaching strategies, materials, and activities to enhance university students' self-emotional regulation abilities within mental health education.

1.2 Types of Instructional Models

Instructional models are instructional frameworks that use organized strategies to achieve specific learning goals. Instructional models are effective tools for planning differentiated instruction. According to Joyce et al. (2009, pp. 24-25), instructional models were categorized into four families whose members shared orientations toward humans and how they learn. The four families included the information processing family, the social family, the personal family, and the behavioral family.

1.2.1 The Information Processing Family

Information-processing models are valuable for self and societal study, aligning with the personal and social goals of education. These models highlight enhancing the innate drive to make sense of the world, acquire, and organize data, problem-solve, and develop concepts and language. (Joyce et al., 2009, p. 25).

The eight information processing modes are summarized as follows:

they include inductive thinking, concept attainment, the picture-word inductive model, scientific inquiry, inquiry training, mnemonics (memory assists), synectics, and advance organizers (Joyce et al., 2009, p. 26). Joyce et al. (2009, p. 25) suggest that these eight patterns contribute to concept formation, hypothesis testing, and still others generate creative thinking as well as enhance general intellectual ability.

1.2.2 The Social Family

Applying the social family creates a collective energy known as synergy. The models capitalize on this phenomenon by creating learning communities. Indeed, classroom management is about developing collaborative relationships in the classroom. Developing a positive school culture is developing integrated and productive ways of interacting and norms that support active learning activities. The models include partners in learning, positive interdependence, structured inquiry, group investigation, role-playing, and jurisprudential inquiry (Joyce et al., 2009, pp. 28-29).

1.2.3 The Personal Family

Human reality exists in our consciousness. People have unique personalities and view the world from perspectives derived from their individual experiences and positions. The personal family starts from the perspective of the selfhood of the individual. They seek to shape education so that people understand themselves better, take responsibility for their education, learn to transcend themselves, and become stronger, more sensitive, and more creative in their pursuit of a high quality of life. The models pay great attention to the individuals' perspective and seek to encourage productive independence so that people become increasingly self-aware and responsible for their destinies. The personal family models include nondirective teaching and enhancing self-esteem (Joyce et al., 2009, pp. 30-31).

1.2.4 The Behavioral Family

The behavioral family models are based on the stance that humans are self-correcting communication systems that modify behavior based on information about successful task completion. How people respond to tasks and feedback has

allowed psychologists to learn how to organize tasks and feedback structures to make human self-correcting abilities more readily available. The models focus on observable behavior and clearly defined tasks, as well as methods for communicating progress to students, so this range of instructional models has a firm foundation in research. The models include mastery learning, direct instruction, simulation, social learning, and programmed schedules (Joyce et al., 2009, pp. 32-33).

1.3 Components of Instructional Design Model

Appropriate instructional design is designed to achieve these goals, in other words successfully, student learning planning should be a challenging, exciting, and gratifying activity (Morrison et al., 2019, preface). The goal of any instructional design is to make learning more efficient, effective, and appealing learning situations for a variety of learning types (Morrison et al., 2019, p. 8).

Smith, & Ragan (2005, p. 10) stated that instructional design consists of the following three main activities: analysis, strategy development, and evaluation. These three activities are the essence of most instructional design models.

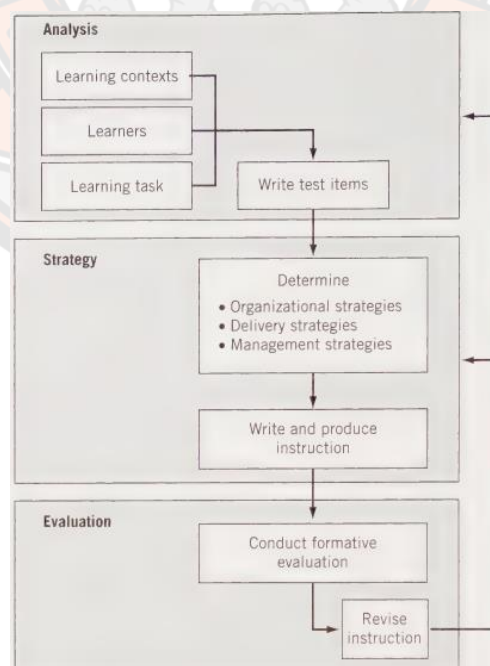


Figure 1 An Instructional Design Process Model

Source: Smith, P. L., & Ragan, T. J., 2005, p. 10

Conversely, Morrison et al. (2019, p. 22) found that the components of an instructional model include learners, objectives, methods, and evaluation. These components are interrelated and can make up an entire instructional design program.

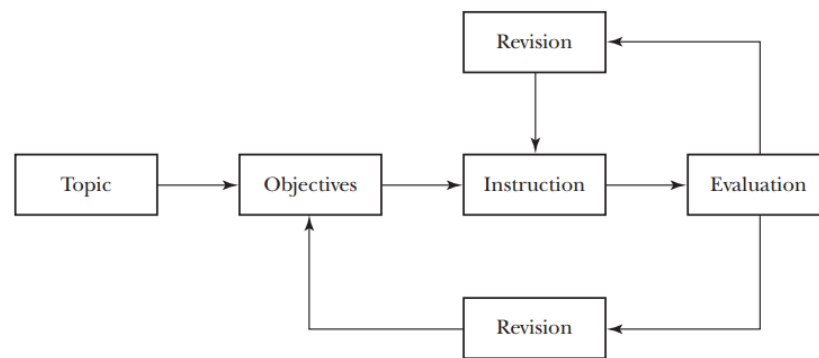


Figure 2 A Typical Instructional Design Model

Source: Morrison, G.R., Ross, S.M., Kalman, H.K., Kemp, J.E., 2019, p. 22

According to Jonassen (1999, p.8), “Instructional-design theory requires at least two components: methods for facilitating human learning and development, and indications as to when and when not to use those methods (which are called situations).”

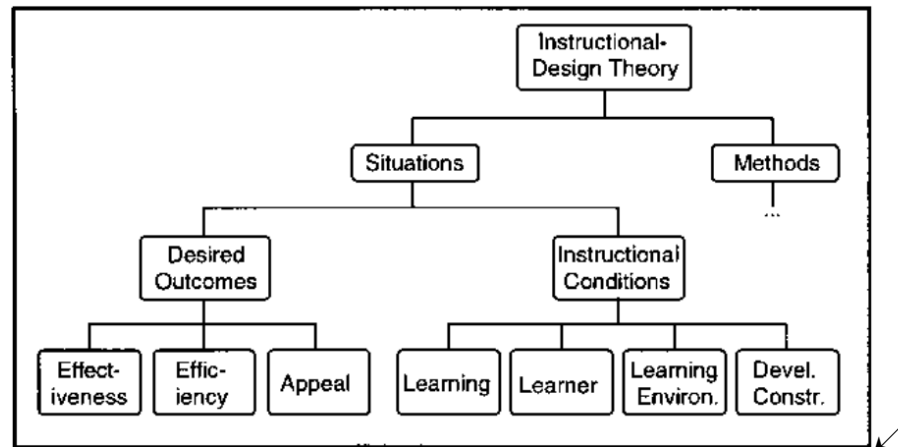


Figure 3 The Components of Instructional Design Theories

Source: Jonassen, D.H., 1999, p.9

Reigeluth (1999) proposed four components of instructional design model, namely situation, experience, emotion, and cognition. These components collectively influence the learners' learning process and outcomes.

Merrill et al. (1992) proposed five fundamental components of instructional design model, covering different aspects of instruction. These components include learner control, cognitive tasks, activation of prior knowledge, demonstration of knowledge, and application of real-world tasks.

Morrison et al. (2019, p. 16) mentioned in their study that almost every instructional design model involves the following four questions when considering how teachers and instructional designers at all stages design curricula:

1. For whom will the program be developed?
2. What will learners or trainees learn or demonstrate?
3. How will the subject content or skill be optimized?
4. How will the level of learning achieved be determined?

These four questions point to the basic elements of the instructional design model-learners, objectives, methods, and evaluation-form the framework for

systematic instructional planning (Figure 4). It can be concluded that the focus of instructional design is on how to enhance learners' performance rather than the content to be covered.

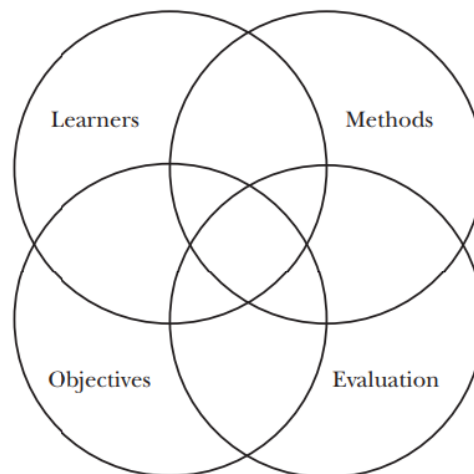


Figure 4 The Fundamental Components of Instructional Design

Source: Morrison, G.R., Ross, S.M., Kalman, H.K., Kemp, J.E., 2019, p. 16

To sum up, instructional models are concerned with designing what content for whom, teaching in which way, and whether it achieves the expected objective. All this presupposes consideration of the principles of teaching and learning. The instructional model should have the following components 1) Principle 2) Objective 3) Content 4) Learning process 5) Evaluation.

1.4 Instructional Design Model

According to Smith, & Ragan (2005, p. 4), instructional design refers to the systematic and reflective process of translating principles of learning and instruction into plans for instructional materials, activities, information resources, and evaluation. It draws on two theories: descriptive theory (describing phenomena that are hypothesized to exist) and prescriptive theory (prescribing actions to be taken that will lead to certain results). Many learning theories describe how learning occurs.

Instructional theories are essentially prescriptive: they suggest that if instruction includes certain features, it will lead to certain types and amounts of learning (Smith & Ragan, 2005, p. 23).

Instructional theories based on learning theory identify the core instructional strategies that should be included in a course or training unit, in other words, those strategies that the instructional designer believes are most likely to be successful in achieving the learning objectives. Developing, redesigning, and producing a complete product in real life also requires the integration of several interdependent elements that together constitute the necessary components of an instructional design model or program (Morrison et al., 2019, p. 340).

Various teaching models are effective. However, the teaching models discovered by Joyce and Weil, (1996, pp. 84-88) were the most useful and widely used in the field of education, especially in building communities of learners. Models of teaching are the products of a series of practices created by teachers as they interact with their students and shape the environment designed to educate them. Models of teaching have some particular components (Joyce et al., 2004, p. 25), including:

1. All models of teaching have coherent theoretical bases: providing the theoretical rationale that explains why it is appropriate to achieve the goals that the model is designed to achieve.
2. All selected models have a long history of practice behind them.
3. The models can be adjusted to suit the learning styles of students and the requirements of many curriculum areas.
4. All models are supported by a certain amount of formal research that tests the underlying theories and their ability to obtain results.

Teaching styles have a significant impact on students' ability to educate themselves. During instruction, teachers engage students in strong cognitive and social tasks and teach them how to use these tasks cognitively. In addition, successful teachers teach students how to pay attention to information in conversation and make it their

own. Effective learners draw information, ideas, and wisdom from their teachers and peers and utilize learning resources effectively (Joyce et al., 2004, p. 4).

The key effectiveness of teaching models is to teach students to become stronger learners (Joyce et al., 2004, p. 7) In contrast, Joyce and Weil (1996, pp. 84-87) described internationally recognized and implemented teaching models. Key components of the teaching models include:

1.4.1 Models of Teaching

Syntax: This model begins by confronting the students with a provocative question. The problem faced may be presented verbally or experienced; it may arise naturally or be provided by the teacher. If students respond, the teachers draw their attention to the differences in their responses/their respective positions or roles, their perceptions, how they organize things, and what they feel. The model is divided into six steps (Joyce and Weil, 1996, p. 84).

- 1) Stage 1: students encounter puzzling situations (planned or unplanned)
- 2) Stage 2: students explore responses to situations
- 3) Stage 3: students develop learning tasks and organize their learning
- 4) Stage 4: independent and group learning
- 5) Stage 5: students analyze progress and process
- 6) Stage 6: recycling activities

Social system: The social system is democratic and is governed by decisions made by the group within certain parameters in response to perplexing phenomena identified by the teacher, based on the group's experience or validated by the group's experience. Group activities are generated under a minimal external structure provided by the teacher. Teachers and students are on equal footing except for role differences. The atmosphere is one of the causes and a result of negotiation (Joyce, & Weil, 1996, pp. 84-85).

Principle of reaction: The teacher's role in the group process is that of a facilitator (helping learners develop, plan, act, or manage the group) and the requirements of inquiry (consciousness of method). The teacher's role in group inquiry is that of counselor, consultant, and friendly critic. Teachers must guide and reflect on group experiences/activities at three levels, including the problem-solving or task level, the group management level, and the level of personal meaning. Students respond to puzzling situations and examine the nature of their common and varied responses (Joyce, & Weil, 1996, p. 88).

This teaching role is both difficult and sensitive because the nature of student-activity-problem inquiry cannot be imposed. At the same time, the teacher must (1) facilitate the group process; (2) intervene in the group to channel its energies into potential educational activities; and (3) supervise these educational activities to derive personal meaning from the experience (Thelen, 1960, p. 13). Because groups vary widely in their need for structure (Hunt, 1971) and cohesion (Thelen, 1967), teachers cannot act mechanically but must be aware of students' social and academic behaviors and aid keep inquiry going without stifling it (Joyce, & Weil, 1996, p. 88).

Support Systems: The environment must be able to meet the various needs of the learners, and the support systems for group investigations should be extensive and responsive to the needs of the students. Teachers and students must be able to gather what they need and when they need it. Students should be encouraged to conduct investigations and to contact resource persons beyond the school world (Joyce, & Weil, 1996, p. 85).

1.4.2 Application

Group investigations require flexibility on the part of the teacher and classroom organization. If students do not have the opportunity to experience this kind of social interaction, decision-making, and independent inquiry, it may take some time for them to function at a high level. Students who have participated in classroom meetings and independent inquiry-based learning may be more receptive. Older

students tend to focus on more complex issues, and teachers need to be adept at designing inquiry activities based on the abilities of these students (Joyce & Weil, 1996, pp. 85-87).

1.4.3 Instructional and Nurturant Effects

This model of teaching integrates the goals of academic inquiry, social integration, and social process learning. Additionally, this model can be used in all subject areas and with students of all ages when teachers wish to emphasize the knowledge formation and problem-solving aspects rather than the ingestion of pre-organized, predetermined information. This model appears to foster interpersonal warmth and trust, respect for negotiated rules and policies, independence, and the ability to learn, and respect for the dignity of others (Joyce & Will, 1996, p. 87).

1.5 Evaluation of an Instructional Model

Evaluating learning is critical in the instructional design process. The purpose of evaluation is to make judgments about the value or success of people or things such as courses, programs, or projects (Morrison et al., 2019, p. 276).

Tyler (2000, pp. 48-49) developed one of the earliest models of evaluation. Tyler's evaluation model includes a set of steps that he considered any systematic examination should have. These steps are as follows:

1. Establish broad goals or objectives.
2. Classify or order the goals or objectives.
3. Define the goals or objectives in observable terms.
4. Find situations in which achievement of the objectives is demonstrated.
5. Develop or select measurement techniques.
6. Collect performance data.
7. Compare the performance data with the stated objectives.

Kirkpatrick, & Kirkpatrick (2006, pp. 21-26) proposed a widely used training evaluation model. It consists of four levels:

1. Reaction (learners' reaction to the training).

2. Learning (what learners learned during the training).
3. Behavior (whether learners applied the learning in their work).
4. Results (the impact of the training on organizational goals).

The four levels indicate a progression of methods for evaluating programs.

Each level is significant and has an impact on the next.

According to Marzano, Pickering, & Pollock (2001, p. 146), the instructional evaluation model includes nine instructional elements:

1. Identifying similarities and differences.
2. Summarizing and note-taking.
3. Reinforcing effort and providing recognition.
4. Homework and practice.
5. Nonlinguistic representations.
6. Cooperative learning.
7. Setting objectives and providing feedback.
8. Generating and testing hypotheses.
9. Questions, cues, and advance organizers.

The model aims to provide teachers with an effective tool to assess instructional practices and enhance student learning.

Stufflebeam (2007, pp. 196-198) introduced the "CIPP model," which comprises four components of evaluation: context, input, process, and product. The model emphasizes comprehensive evaluation, covering different aspects of instructional design and implementation.

Guskey (2000, pp. 61-65) summarizes the 30 Program Evaluation Standards outlined by the Joint Committee on Standards for Educational Evaluation. These standards are categorized into four groups corresponding to the four attributes of sound and fair program evaluations: utility, feasibility, propriety, and accuracy. The 30 Standards are listed below:

Utility Standards: stakeholder identification, evaluator credibility,

information scope and selection, values identification, report clarity, report timeliness and dissemination, and evaluation impact.

Feasibility Standard: practical procedures, political viability, cost-effectiveness.

Propriety Standards: Service orientation, formal agreements, rights of human subjects, human interactions, complete and fair assessment, disclosure of findings, conflict of interest, and fiscal responsibility.

Accuracy Standards: program documentation, context analysis, described purposes, and procedures, defensible information sources, valid information, reliable information, systematic information, analysis of quantitative information, analysis of qualitative information, justified conclusions, impartial reporting, meta-evaluation.

These scholars' summaries of instructional model evaluation provide useful guidance and frameworks to assess the effectiveness, learning outcomes, and impact on organizational goals of instructional models. These evaluation models offer valuable tools and methods for the fields of education and training to ensure the effectiveness and quality of instructional activities and courses.

2. Positive Psychology Theory

2.1 Positive Psychologists and Positive Psychology Theory

In the late 1990s, the field of psychology witnessed a transformative shift in focus, led by Martin Seligman, who championed the emergence of positive psychology. Before this, traditional psychology primarily concentrated on addressing mental disorders and eliminating problems. However, Seligman and other influential theorists introduced the concept of positive psychology, emphasizing the study of human strengths, virtues, and the pursuit of happiness and well-being. The figure that follows provides an overview of the major positive psychology theorists, their respective theories, and the fundamental insights that have reshaped our understanding of the human psyche and well-being.

Table 1 Positive Psychologists and Positive Psychology Theory

Positive psychologists	Positive Psychology Theory	Key Insights
Martin Seligman	Introduction of Positive Psychology PERMA	<ul style="list-style-type: none"> - Shifted psychology's focus from pathology to well-being (Seligman and Csikszentmihalyi, 2000, pp. 5-9). - Emphasized the study of positive qualities and strengths in individuals (Seligman, 2002). - Aimed to promote human flourishing and self-actualization (Seligman, 2011).
Mihaly Csikszentmihalyi	Flow Theory	<ul style="list-style-type: none"> - Introduced the concept of "flow" as a state of deep engagement and satisfaction in activities (Csikszentmihalyi, 1990). - Highlighted the importance of matching skills with challenges for optimal well-being.
Edward Diener	Subjective Well-being	<ul style="list-style-type: none"> - Proposed subjective well-being as a guiding principle for societal development (Diener, 2000, pp. 34-43). - Advocated for measuring happiness and life satisfaction.
Christopher Peterson	Character Strengths	<ul style="list-style-type: none"> - Defined positive psychology as the scientific study of what makes life worth living. - Focused on positive aspects of human life and character strengths (Peterson, 2006, p. 4).
Richard Ryan & Edward Deci	Self-Determination Theory	<ul style="list-style-type: none"> - Explored the role of self-determination in intrinsic motivation and well-being (Ryan & Deci, 2000, pp. 68-78). - Highlighted the importance of autonomy in human development.
Kennon M. Sheldon & Laura King	Essential Characteristics of Positive Psychology	<ul style="list-style-type: none"> - Defined positive psychology as the study of human developmental potential and virtues (Sheldon & King, 2001, p. 216). - Emphasized utilizing positive strengths for a good life.
Barbara Frederickson	Positive Emotions	<ul style="list-style-type: none"> - Explored the tools of science to achieve optimal human functioning. - Investigate what makes people positive in life and how to develop strengths and virtues (Frederickson, 2010).

Based on the above Table 1, this study defines positive psychology theory as follows:

Positive psychology theory is a scientific approach that systematically explores and examines positive emotions, personality strengths, and meaningful experiences to understand and promote the flourishing and well-being of university students. Positive psychology theory is the theoretical basis for the development of this instructional model, which will be utilized in the design of the learning process to enhance students' positive experiences and self-emotional regulation ability.

2.2 Key Concepts of Positive Psychology Theory

While positive psychology concepts are individual ideas or mental representations, theories are broader frameworks that link multiple concepts to explain and understand a particular phenomenon. The development of theories often involves exploring the relationships between various concepts, leading to a more comprehensive understanding of the topic at hand. The following concepts help us to better learn and understand theories about positive psychology.

Robert Emmons' (2003, pp. 377-389) research centers on the construct of gratitude. He found that cultivating a grateful mindset is closely related to positive emotions, psychological well-being, and life satisfaction. Developing gratitude can enhance individual happiness and psychological health.

Mihaly Csikszentmihalyi's (1990) research primarily revolves around the construct of "Flow." Flow is the state of complete immersion in highly engaging, challenging, and enjoyable activities. Csikszentmihalyi considers flow as one of the highest positive psychological states that fosters personal growth and fulfillment.

In *Positive Psychological Character and Virtues: A Handbook and Classification*, Christopher Peterson collaborated with Martin Seligman to construct a "Classification System of Values and Practices of Personality Strengths," noting that positive psychology is dedicated to the development of human wisdom. In *Christopher Peterson collaborated with Martin Seligman to construct a "Classification System of*

Values and Practices of Personality Strengths", which states that positive psychology is committed to cultivating the six virtues of wisdom, courage, love, justice, temperance, and excellence, which correspond to the 24 strengths of an individual's personality, in other words, the 24 positive psychological qualities of curiosity, learning, creativity, insight, openness to learning, bravery, perseverance, honesty, vitality, proximity, kindness, intrapersonal intelligence, teamwork, fairness, leadership, forgiveness, modesty, prudence, self-control, aesthetics, gratitude, optimism, humor, and faith. . As positive psychology develops, the qualities of positive personality will continue to be modified and refined, becoming richer and more relevant to human reality (Peterson & Seligman, 2004).

Grotberg (2003). define resilience as the human ability to bounce back from adversity and develop coping strategies to overcome, survive, or adapt successfully. Resilience differs from "post-traumatic growth," implying human strength and growth, because the former involves upward movement beyond the pre-traumatic level of adaptation, whereas resilience assumes psychological growth that may or may not occur after adversity (Miller, 2003). A person can be considered resilient if he or she quickly returns to a previous state after a traumatic or negative life event (Bolig & Weddle, 1988, cited in PAN and CHAN,2007).

Buss (2000, pp. 15-23) analyzed human happiness from the perspective of evolution, pointing out that happiness is not only a goal pursued by human beings, but also a psychological mechanism formed in the process of human evolution, to which human beings can only pay full attention to truly improve the quality of life of human beings. In *The Way to Happiness: Harvard's Most Popular Happiness Lesson*, Taylor Ben - Shahr (2013) not only introduces the concept of happiness and the important components of a happy life, but also offers some reflections on the nature of happiness and how to apply these ideas to education, work, and family life.

Shapiro et al. (2016, pp. 108-125) showed that mindfulness is much more than paying attention. It is a way of training the mind, heart, and body to be fully present

in life. It is both a practice (e.g., meditation) and a way of being. Fundamentally, it is a way of relating to all experiences— positive, negative, and neutral— with kindness, openness, and receptivity. The IAA model of mindfulness comprises three core elements: intention, attention, and attitude (Shapiro& Carlson, 2009). Intention creates the context and motivation for our practice of positive thinking, attention involves bringing our awareness into focus, and attitude describes the quality of our attention - harsh, demanding or kind, curious, gentle. These three elements are inextricably intertwined in the process of practicing positive thinking as a "here and now" process.

Clarifying the relevant concepts of positive psychology will be helpful in this study, and it will have a positive effect on the development of a new instructional model that combines positive psychology and a collaborative instructional approach to enhance university students' self-emotional regulation ability.

2.3 Constructs of Positive Psychology Theory

The theoretical construct of positive psychology is summarized by Liu (2014, p. 52) as "one center, five elements, and three basic points". One center means that positive psychology is centered on the study of human happiness. The research results of Seligman, the initiator of positive psychology, point out that happiness is a constructed concept, consisting of several measurable elements, each of which can promote happiness, but no one element can define happiness alone, and its connotation should include all the things that people are pursuing. If happiness is a dazzling pearl, and Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment are the five components that make up the pearl of happiness, the dazzling degree of the pearl is related to the types of the five elements it contains, and its composition ratio. In general, the more types of elements it contains and the more reasonable its composition ratio is, the brighter and brighter the pearl shines, and the more plentiful and prosperous life will be, the happier it will be. The three fundamentals refer to the three major research areas of positive psychology, namely, positive experience, positive personality, and positive social organization system.

2.4. Applications of Positive Psychology Theory in Education

Positive psychology is currently being researched in a dynamic manner that is affecting many areas of society, economy, education, management, health care, etc., and is serving as an innovative guide in practice. The application of positive psychology in the field of education is mainly reflected in the rise of positive education. The focus of attention in mental health education has shifted from the elimination or correction of students' problems to the cultivation of positive qualities and the enhancement of positive experiences, and the concept of education has also shifted from critical education to appreciation education (Ma, 2016). At the micro level, positive education not only improves students' life satisfaction, but also helps to develop a more innovative way of thinking, which is conducive to better learning. From the macro level, positive education is not only the inherent requirement of a harmonious society, but also the main way to achieve educational goals and the core value of education itself (Liu, 2014). In the practice of positive education, many scholars have carried out useful explorations, the most representative of which is the positive psychology education carried out by Seligman and others in the Strahaven School in the United States and the top aristocratic schools in Australia (Seligman, 2011, pp. 82-91). In 2009, in order to put into practice the educational philosophy of "laying the foundation for children's happiness", the 19th Middle School in Beijing was identified by the Central Academy of Educational Sciences as a key experimental school for "positive mental health education", and the "Positive Mental Health Education Center" was set up in 2010, with the aim of providing positive mental health education to the children by means of the virtues and virtues. In 2010, it set up the "Positive Mental Health Education Center", which is based on the principle of virtue and strength education, and focuses on discovering and cultivating students' excellent qualities, and has achieved obvious results after several years of practice (Li, 2016). In addition, many universities, such as Tsinghua University and Peking University, have also opened positive psychology courses, so that students can benefit from positive psychology education. Ren (2006)

concludes that the rise of positive psychology has brought new inspiration and vision to the development of psychology and mental health education.

2.5 Positive Psychology and Self-Emotional Regulation Ability

Positive psychology, a field rooted in the study of human flourishing and well-being, has significantly contributed to the development of self-emotional regulation abilities in individuals, particularly among college students. The core premise of positive psychology is that it focuses on the cultivation of positive emotions, strengths, and virtues, rather than solely addressing psychological deficits. This emphasis on positivity aligns closely with the goal of enhancing self-emotional regulation abilities, as emotional regulation plays a pivotal role in maintaining psychological well-being.

Instructional models guided by positive psychology principles recognize the importance of nurturing emotional intelligence and self-regulation skills in college students. These models often incorporate the following strategies to facilitate the improvement of self-emotional regulation abilities:

2.5.1 Positive Emotion Cultivation: Positive psychology encourages individuals to cultivate positive emotions consciously. In a teaching context, this can involve practices such as gratitude journaling, mindfulness meditation, or engagement in activities that promote positive emotional experiences. By regularly engaging in these activities, students can learn to harness positive emotions to better manage negative ones.

2.5.2 Strengths-Based Approaches: Positive psychology emphasizes the identification and utilization of individual strengths and virtues. In the classroom, educators can help students identify their unique strengths and apply them to cope with challenging emotions. Encouraging students to leverage their strengths fosters a sense of self-efficacy and emotional control.

2.5.3 Building Resilience: Resilience-building exercises, a key component of positive psychology, can enhance a student's ability to bounce back from

setbacks and adversity. Teaching resilience strategies empowers students to adapt to emotional challenges effectively, ultimately improving their self-emotional regulation.

2.5.4 Positive Relationships: Positive psychology recognizes the importance of positive social connections. Educational settings can foster environments where students build supportive relationships with peers and mentors. These connections provide emotional support and promote healthy emotional regulation through shared experiences and understanding.

2.5.5 Meaning and Purpose: Encouraging students to explore their values and sense of purpose can enhance their emotional regulation. When individuals have a clear sense of meaning, they are better equipped to cope with emotional fluctuations and maintain a sense of equilibrium.

In summary, positive psychology serves as a guiding framework for teaching models that aim to enhance self-emotional regulation abilities among college students. By emphasizing positive emotions, strengths, resilience, relationships, and personal meaning, educators can empower students to navigate their emotional landscapes more effectively. Through these strategies, students can develop the skills and mindset necessary to regulate their emotions and cultivate greater emotional well-being.

3. Collaborative Learning Approach

3.1 Definition of Collaborative Learning

Collaborative learning is a productive model of teaching and learning that is currently in use in many countries. Research on collaborative learning began in the late 1960s, with the earliest literature on collaborative learning coming from Vygotsky (1978, p. 209), who argued that learning is inherently social. Collaborative learning has been used as an umbrella term for a variety of educational approaches that involve the joint intellectual efforts of students or teachers and students.

Different theories about collaborative learning have been developed in learning psychology and education. According to Pierre et al. (2005, p. 50), collaborative learning (Dillenbourg et al., 1996; Roschelle and Teasley, 1995) is

recognized as "participants working with each other to solve problems". Social construct theory (Woolfolk, 2001) emphasizes the importance of social interaction to the learning process. This interaction in the learning process should contribute to the achievement of higher cognitive goals. Johnson and Johnson's (1994) cooperative learning theory emphasize the importance of organizing cooperative learning to make it more meaningful and effective.

There are many different interpretations of the concept of collaborative learning. Hiltz (1993, pp. 71-98) and Johnson (1981, pp. 5-10) suggest that collaborative learning means that knowledge is not directly transferred to students but is formed through active dialog and communication between students and understanding of concepts. Bruffee (1999) suggests that collaborative learning is a way to help students change their inherent learning habits and adapt to community learning styles, and that in a collaborative learning environment students can communicate through presentations, role-plays, and so on. Pea (1994, pp. 285-299) call collaborative learning a way to reach a sharing of meanings among members of a group. Li (2000, pp. 7-13) believes that collaborative learning is a strategy of organizing students' learning through the form of a group or team, in which individuals in the group collaborative activities can share the information and learning materials that they explore and discover during the learning process with other members of the group, and the individuals can use the forms of dialogue, deliberation, and argumentation to fully argue about the problems.

According to Dyson (2014, pp. 93-94), collaborative learning is a dynamic instructional model in which students work together in structured, heterogeneous groups to learn and master subject matter. Students are not only responsible for learning the material but also for helping their fellow group members learn (Dyson, & Casey, 2012).

According to Fang and Warschauer (2004, p. 308), collaborative learning is a context in which students collaborate to construct and generate knowledge through

social interaction and communication. Van Boxtel et al. (2000) argued that collaborative learning activities allow students to provide explanations of their understandings, which helps students to elaborate and reorganize their knowledge. Research has shown that providing detailed explanations improves students' conceptual understanding. Once conceptual understanding becomes visible through verbal communication, students can negotiate meaning to reach a consensus or shared understanding.

In summary, collaborative learning can be defined as an instructional method that encourages active participation and collaboration among college students in small groups. In this approach, learners at different levels work together in small groups or pairs to achieve common learning goals. Learners are responsible not only for their own learning but also for each other's learning. It emphasizes shared responsibility, positive interdependence, and a supportive learning environment in which students actively interact, engage in constructive dialogue, and co-construct knowledge. Collaborative learning allows students to practice improving their emotional management skills through dialogues, discussions, role-plays, and games. In this study, students formed groups to discuss emotional challenges, analyze cases related to emotion regulation, and share positive experiences of emotion regulation within the group, aiming to improve self-emotion regulation.

3.2 Characteristics of Collaborative Learning

Drawing on Johnson et al. (1993, pp. 9-10), collaborative learning groups are different from typical classroom learning groups in many ways. These differences are:

Collaborative learning groups are based on positive interdependence among group members. Positive interdependence among group members and the structure of the group's goals requires students to focus on the performance of all group members as well as their performance. and their performance.

In a collaborative learning group, each student has clear individual responsibilities, each student's mastery of the assigned material is assessed, each

student receives feedback on his or her progress, and the group receives feedback on each member's progress so that other group members know who to help and encourage. In traditional study groups, individual students usually do not in a traditional study group, the individual student is often not responsible for providing his or her share of the group's work; occasionally, students will "hitchhike" on the work of others.

In collaborative learning groups, members are usually heterogeneous in terms of abilities and personal characteristics, whereas members of traditional learning groups are usually homogeneous.

In a collaborative learning group, all members are responsible for taking a leadership role in the group. Whereas in traditional learning groups, the leader is appointed and is the responsibility of the group members.

In collaborative learning groups, responsibility for learning is shared. Group members are expected to help and encourage each other to ensure that all members can complete assigned work. In traditional study groups, group members rarely take responsibility for each other's learning.

In collaborative learning groups, the goal is primarily to maximize each member's ability to learn and to maintain good working relationships among members. In traditional classroom study groups, students tend to focus solely on completing assignments.

In collaborative learning groups, students are directly taught the social skills needed to collaborate (e.g., leadership, communication skills, mutual trust, and conflict management). In contrast, in traditional classroom study groups, interpersonal and group collaboration skills are assumed.

When using collaborative learning groups, the teacher observes the groups, analyzes the problems they encounter in working together, and provides feedback to each group on how well they are managing the group's tasks. In traditional learning groups, teachers rarely observe or intervene.

In collaborative learning, the teacher develops procedures for groups to

"process" the effectiveness of their work, whereas in traditional group learning situations, the teacher is not concerned with how the group works or does not work.

Comparing the collaborative learning approach with the traditional group learning approach, it is easy to see the characteristics and advantages of the collaborative learning approach when considering the students' self-emotional regulation problems. This study utilizes collaborative learning to address the educational issues raised in Chapter 1, to revitalize learning and teaching, and thus to enhance the self-emotional regulation ability for university students in China.

3.3 Components of Collaborative Learning

Zhao (2002, pp. 19-20) proposed the components of collaborative learning, which mainly include individual students, learning groups, learning content, learning process, and learning objectives. Among them, individual students refer to the members of the group, and the learning group is the basic organizational form of collaborative learning, which can be called a learning community; the learning content refers to the knowledge of learning; the learning process refers to the process of exchanging, communicating, and sharing resources among the group members; and the learning goal refers to the achievement of a common understanding and the sharing of results. The connection between the elements of collaborative learning, collaborative learning is the process of individual students engaging in learning activities and accomplishing learning goals through a group; in the learning process, consensus among individual students is achieved through active communication, negotiation, and communication.

Roger, & Johnson (2009, pp. 2-5) provide an overview of years of research on cooperative learning, suggesting that the components of cooperative learning are: 1) positive interdependence, 2) face-to-face promotive interactions, 3) individual accountability, 4) interpersonal and small-group skills, and 5) group processing. These elements formed the cornerstones of the lessons. Their theories provide a theoretical foundation for how to organize collaboration and promote collaborative performance in collaborative learning.

Kagan (1994) emphasizes four main components of collaborative learning: simultaneous interaction, positive interdependence, individual responsibility, and equal participation. In a traditional classroom, only one person speaks at a time, and it is usually the teacher who says the most. In contrast, collaborative learning allows all students to actively participate at the same time. Furthermore, during collaborative learning activities, students receive specific instruction such as paraphrasing, summarizing, clarifying, or expressing agreement or disagreement, all of which facilitate the language acquisition process. When team members need to rely on each other to accomplish a task, positive interdependence is created. Working together, students helped each other to ensure that all learned the material. In accomplishing the task, each member of the group feels that he or she and his or her peers are learning on their own and contributing positively to the group, so each learner contributes to the improvement of learning outcomes. Finally, participation is part of the learning process and an important factor in student success; therefore, in collaborative learning, students learn by interacting with the material and their peers, and each student has an equal opportunity to participate in the process and outcome of the activity (Kagan, 1994).

3.4 Collaborative Learning Structures

The structures used for collaborative learning vary from one another.

"Think-Share-Perform" is based on the "Think-Pair-Share" structure, developed by Kagan (1992). It is a strategy that encourages participation through critical thinking, sharing, negotiation, and performance. It is particularly useful for creating games and practicing play through problem-solving.

"Pair-Check-Perform" is based on Kagan's (1992) "Pair-Check" structure. This structure requires individuals to help others learn while completing a task and is useful when learning manipulative, emotionally regulated methods. It is like Mosston & Ashworth's (1994) 'Reciprocal' style of teaching involves students working in pairs, with each student taking turns to act as an observer and performer.

"Jigsaw Perform" is based on Aronson's (1978) "Jigsaw" activity. In this

structure, each student is responsible for learning and performing parts of the content and then teaching his or her parts to other group members." The "Jigsaw Perform" process involves a strong positive interdependence as each student is dependent on the other students for information.

"Co-op play" is based on the "Learning Together" paradigm described by Orlick (1978, 1982) and Johnson et al. (1993). Co-op play emphasizes shared success in challenging and inclusive activities.

"Learning Team" are based on Slavin's (1980) "Student Teams-Achievement Divisions" and on "Learning Together" (Johnson et al., 1993). Learning groups allow students to share leadership and responsibility roles and use collaborative skills to achieve group goals. Therefore, the use of collaborative learning structures in this study was aimed at creating effective lessons that engage and enhance student learning, thereby transforming the traditional instructional classroom into more student-centered learning. Sample collaborative learning structures, both adapted and self-designed collaborative learning structures, were used in this study.

According to Johnson, & Johnson (1999, p. 182), there are three target structures for collaborative learning: cooperative learning, competitive learning and individualistic learning. If a long time is spent facilitating high levels of reasoning and problem solving to give students maximum thinking experience, such tasks are best accomplished as cooperative learning. At a somewhat lower level, students can acquire important and specific knowledge and skills through an individualistic goal structure. Competitive goal structures are more appropriate for tasks that involve practicing or reviewing some factual knowledge. Ideally, the cooperative learning goal structure takes up 60% to 70% of the time of the whole lesson, the individualistic goal structure takes up 20% of the time, and the competitive goal structure takes up 10% to 20% of the time.

In contrast, the target structure proposed by Johnson & Johnson (1999) is more valuable for reference. On this basis, this study will comprehensively apply the

Learning Team's learning steps for structural design.

3.5 Considerations When Designing Collaborative Learning Interventions

Based on the characteristics and structure of the collaborative learning approach, several aspects should be taken into consideration when developing collaborative learning interventions.

According to Topping et al. (2011), when developing a plan, teachers need to consider:

3.5.1 The form of the assignment. A combination of individual assignments, paired assignments, group assignments, and whole-class assignments, all of which may be necessary to address a topic. These activities should be strategically sequenced, with more individual and paired activities in the early stages.

3.5.2 Grouping principles. This includes class seating arrangements, group size, number of groups, group composition and group stability. For collaborative group learning, every four or five students are grouped around a table. The composition of the groups did not allow for free choice as this could reinforce social polarization. The ratio between friends and non-friends was balanced.

3.5.3 Homogeneity and heterogeneity. In terms of ability, complete heterogeneity of ability is avoided; instead, based on the teacher's judgment, groups are formed of students with high and medium ability, and groups of students with low and medium ability. Balance is also maintained as far as possible in terms of gender, personality and working styles. Students with special educational needs are also included.

3.5.4 Focus on and impart group work skills to students. These include planning, decision-making, compromising and reaching consensus, managing interruptions and conflicts, and staying on topic and task. Attention is given to developing communication skills including taking turns, active listening, asking and answering questions, making and soliciting suggestions, expressing and soliciting ideas and opinions, brainstorming suggestions, ideas and opinions, giving and asking for help,

giving and asking for explanations, interpreting and evaluating ideas, arguing and counter-arguing, persuasive talk, and summarizing talk.

3.5.5 Potential Problems. Include free-riding behavior (one person lets the others do all the work), divided responsibility (no one feels responsible), and dominance (one person directs the others/does it for them).

As a complement, Cohen (1994) is concerned with:

3.5.6 Written instructions for each task. According to Cohen, written instructions for each task should be provided to students after the teacher's verbal instructions for the collaborative task, which can provide guidance to students in the collaborative learning process to reduce the need for external assistance from the teacher.

3.5.7 Clear role assignments. Each student in a group should be assigned a clear role; for example, each group should have a facilitator, materials manager, reporter, checker, etc. Assigning roles to students will ensure that they are engaged in collaboration and will accomplish tasks more efficiently than if students were allowed to interact without these role assignments.

3.5.8 Wrap-up session. There should be a "wrap-up" phase at the end of each collaborative task or lesson. The final debriefing phase is critical to ensure that students understand the material, are allowed to share their ideas, and can clarify any misunderstandings.

3.6 Advantages of Collaborative Learning

According to Rutherford and Stephen's (2014) research, collaborative learning offers multiple advantages. Learners benefit from sharing perspectives and experiences, which enables problem-solving and the development of shared understanding. Through dialogue and social interaction, learners surpass individual capabilities, enhancing the overall learning experience. Additionally, Rutherford highlights the integration of technology in collaborative learning, enabling learning to transcend geographical, cultural, and language barriers.

The study of Petrescu et al. (2017) emphasizes the advantages of collaborative learning in science education. Findings suggest that collaborative learning enhances students' knowledge development, motivation, and interest in science, thereby strengthening their learning and engagement. The research, based on student feedback and teacher observations, underscores the potential of collaborative learning in science education.

Laal, & Ghodsi's (2012) review article categorizes the benefits of collaborative learning into four main areas: social, psychological, academic, and assessment. Socially, collaborative learning promotes cooperation, interaction, and teamwork. Psychologically, it enhances students' motivation and learning interests. Academically, it improves academic performance and deepens knowledge. In terms of assessment, it provides more opportunities for evaluation and feedback, leading to better measurement of students' academic progress.

Bishnoi (2017) examined the advantages of collaborative learning. Collaborative learning is viewed as an interactive strategy that allows students to utilize each other's resources and skills to promote cooperation and knowledge sharing. It has outstanding advantages, especially in developing teamwork, communication, and interaction.

3.7 Positive Psychology Theory and Collaborative Learning Approach Combined

The integration of positive psychology theories and collaborative learning approach creates a powerful pedagogical synergy that not only enriches the learning experience but also plays an important role in enhancing students' self-emotional regulation ability.

Positive psychology theory emphasizes the discovery and use of personal strengths, laying the foundation for cultivating a resilient and optimistic mindset in students. By shifting attention from weaknesses to strengths, students develop greater confidence in their abilities. This newfound self-confidence equips them with the tools

to adopt positive coping mechanisms in the face of challenges, leading to improved emotional regulation. Additionally, cultivating gratitude and positive relationships within this framework can further enhance emotional resilience and reduce symptoms of depression and anxiety (Nezlek et al., 2018).

Collaborative learning emphasizes communication and cooperation, which directly contributes to enhanced self-emotional regulation ability. When students engage in collaborative learning, they are not only exposed to different perspectives and ideas, but they also learn to effectively regulate their emotions within a group dynamic. Järvenoja's (2019) study found that students who participated in a collaborative learning program demonstrated superior emotional regulation. This is because collaborative learning encourages students to work together, communicate openly, and support each other, enabling them to work together to overcome challenges and manage negative emotions (Wang, & Degol, 2014).

By combining these two approaches, the instructor creates a supportive and stimulating learning environment that fosters student engagement and personal growth. The collaborative learning process involves grouping students and assigning them specific roles that promote teamwork and communication. As students actively collaborated, they not only deepened their understanding of the subject matter, but also learned to navigate interpersonal dynamics and regulate emotion effectively. Debriefing and feedback sessions at the end of each group task provided students with opportunities to reflect on their emotional responses and receive constructive feedback from their peers, thus promoting emotional growth and self-awareness.

3.8 Step-by-step Considerations when Designing Learning Process Based on Positive Psychology Theory and Collaborative Learning Approach

According to Johnson, & Johnson (1999), research refers to the integration of the use of cooperative learning methods in the ninety-minute classroom. The basic structure of a ninety-minute classroom is essentially the same as that of a fifty-minute classroom, except that it is easier to accomplish a task in a class that has

both lecture and cooperative learning groups. The class begins with a cooperative-based group meeting, the instructor uses informal cooperative learning groups for lecture (to ensure that students are cognitively active as the instructor delivers the information), uses a formal cooperative learning activity to facilitate problem solving and high levels of learning, and concludes the lesson with a second cooperative-based group meeting.

Integrating the cooperative learning approach in a ninety-minute classroom can be broken down into the following steps (Johnson, & Johnson, 1999, p. 105):

1. Begin with a cooperative-based group touch-up (10 minutes)
2. Direct instruction accompanied by informal cooperative learning (25 minutes)
3. Completing tasks in formal cooperative learning groups (45 minutes)
4. Direct instruction accompanied by informal cooperative learning (10 minutes)
5. End with cooperative-based group encounters (5 minutes)

The instructional activities mentioned in this study based on group work can be a reference for the learning process of collaborative learning.

Bruffee (1999) addresses the collaborative learning approach and summarize the five steps teachers usually take:

1. They divide a large group (class) into smaller groups, usually of about five students.
2. They provide a task, usually designed (and preferably tested) in advance, for the groups to complete.
3. They reconvene the students in a plenary session to hear reports from the groups and act as referees to help the students negotiate a class consensus.
4. As local representatives of the class within the larger relevant knowledge community, they guide students in comparing the class consensus with the

current consensus of the knowledge community represented by the instructor.

5. They explicitly assess the quality of student work.

Rocca et al. (2014) illustrates the action steps taken in collaborative learning to form groups and prepare for online and on-site activities. The collaborative activities were proposed in the middle of the course development. Therefore, the students already had information about designing work groups. To promote freedom of choice, groups were formed independently by the students themselves, and the researcher advised students to follow the instructions provided in the introductory seminar: no more than five units. Identify a theme for further development (with teacher approval); choose a name for the group and identify a student to act as coordinator and editor of the final work.

Hmelo-Silver et al. (2013) concluded that collaborative learning has become an increasingly important part of education, but the research supporting it is spread across a wide range of fields including social, cognitive, developmental, and educational psychology, instructional design, learning sciences, educational technology, socio-cultural studies, and computer-supported collaborative learning. Their goal is to integrate theory and research from these different fields of study and, thus, to advance the understanding of collaborative learning and its pedagogical applications. They summarize the steps of collaborative pedagogy as follows:

1. Class determines subtopics of the problem and organizes them into research groups.
2. Groups plan their investigations.
3. Groups carry out their investigations.
4. Groups plan their presentations.
5. Groups present their findings.
6. Teacher and students evaluate the projects.

Strijbos et al. (2004) designed a six-step process for computer-supported group learning. They stated that the design of any (CS)GBL setting should begin with

the identification of learning objectives. The steps are as follows:

1. Identify the learning objectives.
2. Identify the expected (changing) interactions.
3. Select the type of task.
4. Determine the need for and degree of pre-structuring.
5. Determine the size of the group.
6. Determine how the computer support will be applied to support the (CS)GBL.

Although this is computer-based collaborative group learning, it can also be used as a relevant reference for the present study.

In conjunction with the theory of positive psychology, to create a positive learning atmosphere and a good cooperative relationship, the researcher added positive evaluation and progress feedback to the steps of collaborative teaching. This is based on positive psychology research focuses on having personal strengths, good relationships, and positive emotions.

Patston, & Waters (2015) designed positive teaching and learning processes in their program including:

1. Positive priming.
2. Strengths spotting. Encourage the student to use their signature strengths to learn to the fullest.
3. Positive pause. Use throughout the session. Stop the students when they have done something well and analyze their positive practices.
4. Process praise. Provide feedback about the process, not just the outcome. Praise strategies or application, not just talent.

Voerman et al. (2014) describe the possible consequences of two concerns of positive psychology: the importance of (1) (positive) emotions and (2) character strengths. They argue that emotions are an important issue in discussions about feedback and question the oversimplification of self-feedback. As a way to stimulate

positive emotions and character strengths, they suggest focusing on progress feedback as a complement to gap feedback.

In summary, with full consideration of the characteristics of positive psychology theory and collaborative learning approach, the researcher designed the learning process steps of this instructional model as follows:

1. Concept explanation and task publication.
2. Formation of supportive learning groups and division of labor.
3. Collaboration and identification of strengths.
4. Sharing and gratitude expression.
5. Growth and progress feedback.

4. Self-emotional Regulation Ability

4.1 Definition of Emotion

Emotions are an integral part of human experience, influencing how we perceive and interact with the world around us. Izard (1971) defined nine affective categories including anger, disgust, fear, guilt, interest, joy, sadness, shame, and surprise) and a neutral category.

Gross (2007, pp. 3-4) defines emotions as: " an astonishing array of responses, from the mild to the intense, the brief to the extended, the simple to the complex, and the private to the public". In Figure 5, he presents in abstracted and simplified form the situation-attention-appraisal-response sequence, which is specified by the modal model of emotion.

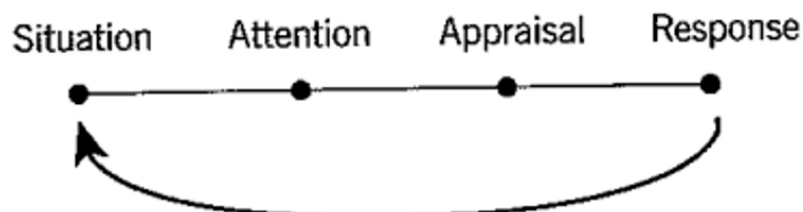


Figure 5 The Modal Model of Emotion

Source: Gross, J. J., & Thompson, R. A., 2007, p. 5

Mulligan and Scherer (2012, p. 346) discuss that emotion definitions should consider: it is an emotion, presupposing; it is an emotional episode; it has the property of being intentional (in other words, guided); it contains palpable bodily changes (arousal, facial expressions, etc.); it contains a perceptual or intellectual event that is intentionality; the intentionality of the emotion is inherited from the intentionality of the event; it is triggered by at least one appraisal; it is guided by at least one appraisal.

Hakak et al. (2017, p. 398) concluded in their study that emotion categories are used by dividing emotions into discrete emotion labels and one of the famous works is Ekman's (1992, pp. 169-200) model of basic emotions, in which he classified emotions into six discrete categories, namely anger, frustration, fear, happiness, sadness and surprise.

The present study follows Gross and Ekman's definition of emotion, which suggests that emotion refers to an astonishing array of responses, could be classified into six discrete categories, namely anger, frustration, fear, happiness, sadness, and surprise. Where happiness is a positive emotion, and others are non-positive emotions.

4.2 Definition of Self-emotional Regulation Ability

From the findings of Gross (1998a, pp. 272-273), William James (1884, 1894) viewed emotions as adaptive behavioral and physiological response tendencies that are directly motivated by situations that are important in the evolutionary process. Individuals regulate their emotional response tendencies, for example, when they whistle instead of running away in fear. The discrepancy between emotional response tendencies and expressive behavior raises questions about how, why, and when individuals attempt to regulate their emotional response tendencies. Many contemporary researchers view emotions as flexible response sequences (Buck, 1994; Frijda, 1986; Scherer, 1984) that are triggered whenever individuals perceive a situation as providing an important challenge or opportunity (Tooby, & Cosmides, 1990). The

emotional response tendency has a relatively short duration and involves changes in behavior, experience, and the autonomic and neuroendocrine systems (Lang, 1995). Importantly, the emotional response tendency can be modulated, and it is this modulation that determines the final shape of the emotional response (Gross, 1998).

According to Gross (1998b), “emotion regulation refers to shaping which emotions one has, when one has them, and how one experiences or expresses these emotions”. It follows that emotion regulation is concerned with how emotions themselves are regulated (regulation of emotions) rather than how emotions regulate other things (regulation by emotions).

As shown in Figure 6, the process of emotion regulation is closely linked to the process of emotion generation. Indeed, some theorists have argued that emotion regulation is best viewed as part of emotion (Frijda, 1986). After all, adult emotions are almost always regulated (Tomkins, 1984), and the brain centers of emotion generation appear to be regulated by the prefrontal cortex (Stuss & Benson, 1986).

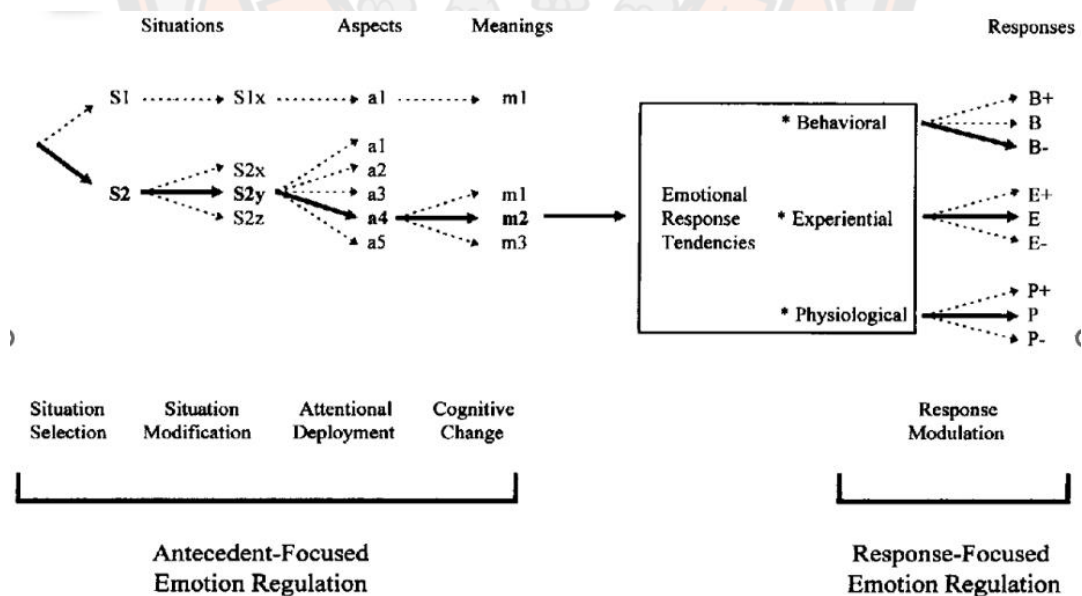


Figure 6 A Process Model of Emotion Regulation

Source: Gross, J. J. , 1998, p. 282

Emotion regulation is the process of initiating, maintaining, or regulating the onset, form, intensity, or duration of an emotional response to achieve personal goals (Eisenberg, & Spinrad, 2004). Boekaerts (2011, pp. 408-25) defines emotion regulation as an individual's ability to understand the emotions of others and the ability to adjust to the emotional experience when it interferes with group goals and social interactions. Bian (2020) defines emotion regulation as the ability to adapt to emotional challenges, inhibit inappropriate behaviors, and exhibit socially desired behaviors.

Zimmerman & Schunk (2011, p. 415) state that, emotional regulation implies a desire to direct one's emotions according to rules (regular means rule in Latin) so that they are more regular. It refers to the ability to understand one's emotions and how they are expressed, as well as the ability to maintain order by adjusting or moderating aspects of emotional experience when they interfere with the pursuit of important goals and social interactions. The ability to regulate emotions, in turn, facilitates functioning in learning and social environments.

Indeed, emotion regulation can be viewed as a series of different control processes that manipulate which emotions are experienced, when they are experienced, how they are experienced, and how they are communicated. These control processes may be conscious and deliberate, or they may be implicit and automatic. Gross and Thompson (2007) state that emotion regulation may refer to regulation by emotions (e.g., emotions regulate a person's thoughts, actions, and physiological responses) and the regulation of emotions, and that emotion regulation refers to a range of different processes by which emotions themselves are regulated.

For this study, self-emotional regulation can be defined as the behavioral process by which individuals effectively regulate their responses to non-positive emotions (e.g., anger, frustration, fear, happiness, sadness, and surprise) in a variety of situations. Self-emotional regulation ability refers to an individual's behavioral ability to effectively regulate his or her non-positive emotional responses in a variety of situations.

4.3 Importance of Self-emotional Regulation Ability

For students, the ability to effectively manage and regulate their emotional responses is undeniably crucial as they navigate the multifaceted challenges of academic and social environments. This ability transcends mere sentiment; it extends its influence across various facets of students' lives, leaving an indelible mark on their educational journey and overall well-being.

As highlighted by Davis et al. (2008), students who exhibit high levels of emotional regulation tend to outshine their peers in terms of academic achievement and engagement in the learning process. This assertion underscores the pivotal role emotional regulation plays in optimizing educational outcomes. When students can effectively regulate their emotions, they are better equipped to focus on their studies, cope with the stress of exams and assignments, and maintain a positive attitude toward learning.

Furthermore, Brackett et al. (2006) delved into the intricacies of emotional regulation within the framework of emotional intelligence (EI) proposed by Salovey and Sluyter (1997). Their research not only reaffirmed the link between emotional regulation and academic success but also shed light on its profound impact on social behavior. The findings indicated that emotional regulation is positively correlated with social competence in children and adolescents, as emphasized by Simpson et al. (2007). This implies that students with strong emotional regulation ability are better equipped to navigate the intricate landscape of social interactions, effectively managing interpersonal conflicts and nurturing positive relationships with their peers.

Okado, & Bierman's research (2015) further emphasizes the significance of emotional regulation by linking it to a reduction in externalizing behavior problems among students. Students who struggle with emotional regulation are more susceptible to disruptive and aggressive behavior, which can have detrimental consequences for their academic progress and social integration. In contrast, those proficient in emotional regulation can better manage their conduct, thus avoiding negative outcomes and

fostering a more conducive learning environment for themselves and their peers.

Moreover, emotional regulation ability is a cornerstone of resilience in adolescents, as highlighted by Ciarrochi et al. (2020). The capacity to regulate one's emotions equips students with the essential tools needed to cope with stress, overcome adversity, and bounce back from setbacks. In essence, self-emotional regulation serves as a protective buffer against the emotional turmoil that students may encounter during their educational journey, enabling them to emerge from challenging experiences stronger and more resilient.

In summary, the ability to regulate one's emotions is far from a mere auxiliary skill for students; it is a vital competency that significantly influences their academic success, social interactions, and overall well-being. The research cited not only underscores the paramount importance of this ability but also emphasizes the need for educational institutions to foster and support the development of self-emotional regulation abilities among their students.

4.4 Components of Self-emotional Regulation Ability

Thompson (1994, p. 29) proposes that emotion regulation consists of the following components: situation appraisal, goal selection, strategy choice, and outcome monitoring.

Li et al. (2020, p. 1) tested the emotional regulation ability of Chinese students from grades 5 to 11 through many surveys and multiple rounds of experiments. They proposed that the process of emotional regulation involves three core elements, including the goals, strategies and outcomes of emotional regulation. However, they also pointed out that the goals were cross-cultural and did not specify specific goals.

Gross (2014, p. 7) focuses on aspects of the emotion regulation process, which he names: situation selection, situation modification, attentional deployment, cognitive change, and response modulation. Situation selection can alleviate experienced negative emotions in the short term and is a strategy for changing the nature of a situation; attentional deployment refers to strategically choosing the

direction of attention, diverting attention away from the situation (distraction) or directing attention to the emotionally arousing situation (attentional focusing); cognitive change refers to reappraisal of the current situation; and response modulation is the most direct type of affective regulation and is designed to influence physiological, experiential, or behavioral responses such as obtaining and providing social support. These five points represent five components of emotion regulation processes (1998b).

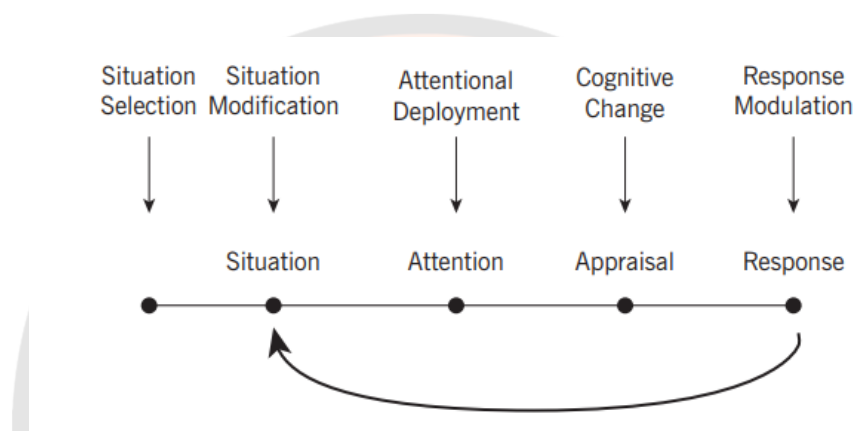


Figure 7 The Process Model of Emotion Regulation

Source: Gross, J. J., & Thompson, R. A., 2007, p. 8

Aldao et al. (2010, p.217) examined the six emotion-regulation strategies (acceptance, avoidance, problem-solving, reappraisal, rumination, and suppression). And reappraisal and suppression are the corresponding strategies of cognitive change and response modulation proposed by Gross (2015, p. 9).

According to Doré et al. (2016, p.171), successful emotional regulation is based on three elements: person, situation, and strategy.

Table 2 Components of Self-emotional Regulation Ability

Components Researchers	Situation	Goal	Strategy	Outcome	Person
Ross A. Thompson	√	√	√	√	
Yi Ming Li, Jian Li, Hong Zou, & Shengnan Wei		√	√	√	
James J. Gross	√	√	√		
Amelia Aldao, Susan Nolen- Hoeksema, Susanne Schweizer			√		
Bruce P. Doré, Jennifer A. Silvers, & Kevin N. Ochsner	√		√		√

To sum up, scholars focus on four components: situation, goal, strategy, and outcome, and some scholars believe that people are open to components that cannot be ignored. This study will study self-emotional regulation ability based on the three components generally recognized by scholars: situation, goal, and strategy. Specifically, it is the situation modification, attentional deployment, and strategy choice as components of self-emotional regulation ability. Because situation selection, situation modification, and situation appraisal are related to the situation, modification is made based on appraisal and selection, and this study will take situation modification as one of the components. Although most scholars mentioned the goal, they did not point out the content. This study will refer to the views of Gross (2015, p. 8), attentional deployment is one of the goals of emotion regulation and aims to influence a person's emotional response. As for strategy, scholars talk more about it, including the regulation of positive emotions and negative emotions. Strategy choice will better reflect students'

self-emotional regulation ability.

4.5 Strategies for self-emotional regulation ability

Some researchers have focused on various aspects of emotion regulation strategies, Gross (2007, p. 9) stated that whatever emotion regulation goals people have, there are many ways they can achieve them. They can even do different things at the same time. For example, at the end of a stressful day at work, some people turn off their cell phones, have a beer, and watch television. This kind of unstructured emotion regulation strategy is seen a lot in life.

In combination with the components of emotion regulation, situation selection is a prospective regulatory strategy. It involves taking action to make people more (or less) likely to be in a situation that is expected to elicit a desirable (or undesirable) emotion. Examples include avoiding a grumpy neighbor and setting up a play date for a child (Gross 2007, p. 9).

Strategies related to situation modification can be effective in creating new situations, in this case, the external environment, such as hiding dirty clothes or personal items when parents come to visit (Gross 2007, pp. 9-10).

Attentional deployment is the directing of attention to influence a person's mood in each situation. It is one of the earliest emotional conditioning processes to occur in humans (Rothbart, Ziaie, & O'Boyle, 1992). It has been utilized from birth to death, especially if nothing else can be done instead. Attentional deployment is mostly practiced by distraction, which focuses attention on other aspects of the situation or simply shifts it away from the entire situation (Gross 2007, p. 10).

Cognitive change is the alteration of a person's appraisal of a situation, thereby changing its emotional significance. Whether by changing a person's perception of the situation or his ability to manage the demands it makes. For the most part, cognitive change applies to internal regulation, in other words, regulating self-thoughts (Gross 2007, p. 10).

Response modulation occurs late in the emotion-generating process, after

the reactive tendencies have been initiated, and refers to the experiential, behavioral, or physiological components that directly influence emotional responses. Physical exercise and deep breathing relaxation techniques can be used to reduce the experience and physiological impact of negative emotions (Gross 2007, p. 10).

Zimmerman, & Schunk (2017, pp. 408-425) pointed out that in the classroom, students must be able to respond to instructional and social cues and regulate their behavior accordingly, which implies the use of different self-regulation strategies. Roder, Kroonenberg, and Boekaerts (2003) described coping strategies used by students with and without asthma to cope with school adversity. They reported that five coping strategies were used to regulate negative emotions, namely approaching situations, avoiding situations, seeking support, aggressive behavior, and crying.

Su (2014) suggested in her study that the strategies for enhancing self-emotional regulation ability are 1. Promoting one's physical health. Strengthening exercise, rationalizing diet, and sleep is the basis, 2. Applying psychological regulation, shifting attention, role reversal, and accepting reality, to build self-confidence, 3. Applying rational emotion therapy, 4. Changing cognition, getting rid of rumination, and 5. The catharsis of negative emotions in a positive way.

In this study, the self-emotional regulation strategies suitable for application in an instructional model based on positive psychology theory and the collaborative learning approach are mainly those that are effective in the regulation of non-positive emotions. For example, positive strategies such as situation modification, and attentional deployment. Through the teacher teaching the relevant theories, the group sharers shared positively in the group with the topic case, and the reporter summarized and shared the positive strategies in the class to give the students a deeper impression.

4.6 Techniques of Self-emotional Regulation Ability

Based on the above self-emotional regulation strategies, several emotional regulation techniques can be explored, which are practical steps or methods that usually

need to be learned and developed.

Situation resetting strategies are used to change emotional responses by altering the environment in which the body is placed, or by working to change feelings about the same situation. It can help an individual disengage from distressing situations and regain emotional balance. One way of doing this is by temporarily leaving the scene that is causing nonpositive emotion. Another common resetting technique is positive thinking meditation. This involves focusing on the present moment, deep breathing, and visualization to create a mental shift away from the current situation (Kabat-Zinn, 1994).

Attention redeployment strategies involve consciously shifting attention away from negative or distressing thoughts or situations and toward more positive or neutral stimuli. A specific technique for attentional redeployment is the "3-2-1" grounding exercise (Hayes et al., 1999). In this exercise, individuals identify three things they can see, two things they can hear, and one thing they can touch. This redirects attention to the immediate sensory experience.

Cognitive change to get rid of rumination strategy involves challenging and changing negative thought patterns and ruminative thinking that can contribute to emotional distress. A widely used technique for cognitive change is cognitive restructuring (Beck, 1976). This involves identifying irrational or negative thoughts, evaluating their accuracy and validity, and replacing them with more realistic and positive thoughts.

Regulating nonpositive emotions in a positive way focuses on transforming negative or nonpositive emotions into more positive or constructive emotional states. One technique for regulating nonpositive emotions positively is the "gratitude journal" (Emmons, & McCullough, 2003, pp. 377-389). Individuals regularly write down things they are grateful for, shifting their focus toward positive aspects of their lives and fostering a sense of appreciation. According to Wood et al. (2009, pp. 860-866), Positive affirmations are also effective conditioning techniques, and students actively create and repeat positive affirmations related to their emotional

challenges. This practice helps to shift their mindset to a positive one.

4.7 Characteristics of Self-emotional Regulation Ability

Emotion regulation is a widely researched topic in psychology, encompassing various characteristics that dictate how individuals perceive, understand, express, and adjust their emotions. The following are key characteristics of emotion regulation :

Diversity: Emotion regulation involves a multitude of strategies and skills, contingent upon individual differences and contextual factors. Gross (1998, pp. 271-299) introduced different regulation strategies, including cognitive change, situation selection, situation modification, attentional deployment, and response modulation.

Temporal Dynamics: Emotion regulation is a dynamic process occurring at various stages of emotional generation. Gross's emotion regulation model emphasizes the phases of emotion generation, strategy selection and implementation, and feedback on regulation outcomes (Gross, J. J., 2015. pp. 1-26).

Self and Other Regulation: Individuals engage in both self-regulation and social regulation, influencing not only their own emotions but also those of others. Social emotion regulation is a dual process operating at both individual and societal levels (Niven et al., 2012, pp. 246-260).

Cultural Factors: The characteristics of emotion regulation are influenced by cultural backgrounds. Some studies explore cultural influences on emotion expression and regulation, highlighting the significance of cultural differences in emotion regulation (Matsumoto et al., 2005, pp. 23-40).

Furthermore, Gross et al. (2011, pp. 765-781) mentioned that the distinctive characteristic of emotion regulation involves initiating a goal with the aim of shaping the trajectory of emotions.

This study will focus on the diversity of emotion regulation.

4.8 Assessing Self-Emotional Regulation Ability

A variety of methods can be used to assess the enhancement of university

students' self-emotional regulation ability after the implementation of the instructional model. Some potential methods are as follows:

Self-Report Measures: The Difficulties of Emotion Regulation Scale (DERS) is a popular and controversial self-report measure designed to assess broadly conceptualized disorders of emotion regulation. Gratz and Roemer (2004, pp. 41-54) completed questionnaires with two samples of undergraduate students exploring the DERS factor structure and psychometric properties. Results indicated that the DERS has high internal consistency, good test-retest reliability, and adequate construct and predictive validity. It is used for assessing various aspects of emotion regulation, including emotion awareness, acceptance, cognitive reappraisal, and positive coping strategies. This method relies on students' self-reports of their emotion regulation ability.

Observational Measure: Typical approaches to this method of assessment include Real-life situations and Role-playing exercises. **Real-life situations:** Observe students in real-life situations where they may need to regulate their emotions, such as in group projects or social activities. According to Theall (2004), if the intention is to relate the content to real-life situations, the assessment must model the context in which the skills will be used. If we only test knowledge, we lose the opportunity to demonstrate learning relevance. **Role-playing exercises:** Davis (1993) provides a method for conducting role-playing exercises. In which students are asked to regulate their emotions in specific situations, such as controlling anger or coping with stressful situations. This approach provides a more objective measure of a student's ability to regulate emotions and helps to identify areas for improvement.

The Situational Judgment Test (SJT) has become an important and useful addition to traditional cognitively oriented tests (McDaniel, Morgeson, Finnegan, Campion, & Braverman, 2001; Moto-widlo, Dunnette & Carter, 1990). For selection purposes or general use in work settings, the SJT has been developed to assess emotional intelligence (Sharma, Gangopadhyay, Austin, & Mandal, 2013; MacCann, & Roberts, 2008). Some scholars have designed new Tests based on The Situational

Judgment Test. MacCann, Pearce, and Roberts (2011) applied the Situational Test of Emotion Management (STEM) and Situational Test of Emotional Understanding (STEU) to assess emotional intelligence. Li et al. (2019) studied developed and validated the Situational Judgment Test of Emotion Regulation Ability for Chinese Youth (STER-CY). The researchers collected emotional situations and responses based on the lives of a local sample and examined the reliability and validity of the test scores. It was concluded that the STER-CY is a psychometrically reliable measure of emotion regulation ability.

In summary, this study intends to design a pre-test and a post-test based on the Situational Judgment Test to capture the enhancement of students' self-emotional regulation ability after the implementation of the instructional model. In addition, it combines Observational measures with group activities to observe students' performance in real-life situations where they may need to regulate their emotions to objectively assess the students' self-emotional regulation ability.

4.9 Mental Health Education for University Students in China

The Ministry of Education of China (2021) issued the "Notice on Strengthening the Work of Students' Mental Health Education," which clearly mandates that universities and colleges must offer public compulsory courses in mental health for undergraduate and junior college students. Mental Health Education for university students in China encompasses various approaches and challenges. According to Chen (2002), university students' mental health education primarily relies on psychological theory and techniques, integrated with the university's daily educational and teaching practices. It is designed with a clear purpose and a well-structured plan to cultivate (including self-training) students' positive psychological traits and unlock their psychological potential. The goal is to facilitate students' physical and mental well-being, harmonious development, and overall enhancement of educational quality. Wu (2003) emphasized adapting mental health education to students' developmental characteristics, focusing on knowledge dissemination, skill teaching, and personality

development. Ma (2016) pointed out that after 30 years of development, China's university students' mental health education curriculum has changed from emphasizing the prevention and correction of mental disorders to promoting the development of students' mental health and paying more attention to the positive and healthy development of students' psychology. Despite progress, challenges persist, including unequal attention to mental health education, varying teaching quality, and inconsistent materials. In the current period, challenges include inadequate awareness, limited educational approaches, unsatisfactory outcomes, and poor educator quality (Tan,2023). Overall, addressing these challenges will contribute to a more comprehensive and effective approach to mental health education for Chinese university students.

5. Related Studies

5.1 Domestic studies

Hu (2021) explores the application of positive psychology in the mental health education program of college students. Through research on freshmen students and interviews with teachers of mental health education courses, it is concluded that positive psychology, as a new theoretical category, has not yet been widely applied in the mental health education of Chinese higher education institutions. Therefore, the next step for Chinese universities is to develop positive and effective mental health education based on positive psychology and to improve the level of mental health education for college students.

Liu (2020) investigated the current teaching situation of mental health education courses for Chinese university students, and put forward the shortcomings of the traditional instructional model, such as: 1. the teaching goal is set to pay attention to students with psychological abnormalities rather than positively guiding them, 2. the content of the teaching is more concerned with psychological theories than with the specific application of regulation methods, 3. the teaching method is outdated, and the lectures are given by the teachers, with less students participating in the classroom interaction, 4. the instructional model is not suitable for mental health education, 5. the

teaching effect is assessed in a single way, which cannot grasp the students' learning. He stated that Positive Psychology focuses on positive psychological qualities and the development of human virtues and that the theory of Positive Psychology is suitable for the reform of mental health education programs in Chinese universities and should be promoted and applied.

Based on research and interviews with teachers and students, Ouyang (2014) analyzed the current dilemma of teaching mental health education courses in Chinese colleges and universities. She argued that to change the previous teaching concepts, the teaching activities of mental health education programs must be carried out under the framework of positive psychology. By cultivating positive psychological qualities, focusing on positive psychological experiences, and selecting positive teaching materials, mental health education courses can cultivate and optimize the psychological quality of college students.

Through a conceptual review, Wang et al. (2021) aimed to make language education researchers, practitioners, teachers, and learners aware of the key principles of positive psychology and its application to second/foreign language (L2) education research. By drawing on the broaden-and-build theory of positive emotions, they explained how personal positivity can enable people to flourish in any aspect of their lives, including L2 learning and teaching. They then introduced and conceptualized seven positive psychology variables, namely academic engagement, emotion regulation, enjoyment, grit, loving pedagogy, resilience, and well-being, and explained how these positive factors contribute to desirable L2 learning and teaching experiences. Potential theoretical and pedagogical insights were drawn to improve the quality and effectiveness of the language education system and its stakeholders.

Liu (2023) conducted a theoretical study and analyzed the significance of implementing positive psychology in Chinese colleges and universities regarding the deficiencies in mental health education. In addition, specific optimization strategies were proposed, 1. Use the concept of positive psychology to further optimize the

atmosphere of mental health education. 2. Teachers should enrich teaching methods to help students better accept positive psychology education. 3. In addition to positive psychology education for struggling students, colleges and universities should also fully implement positive psychology, emphasize students' psychological experiences, and prevent potential psychological problems. The construction of college students' mental health model based on the perspective of positive psychology should be done as follows: 1. establish positive college students' mental health education goals, 2. shape and strengthen college students' character traits and emotions through educational content, and 3. construct a correct teaching model for mental health education.

Yi Wu (2022) described a more scientific approach to the reform process of the design curriculum that was suitable for China's education system, based on positive psychology and taking "courage" into consideration. Unlike other basic disciplines, design emphasized practicality, which required that in the process of designing educational reform, more attention should be paid to stimulating students' subjective initiative and improving their ability to solve problems in the face of frustration. Through field research, logical analysis, and other research methods, the researcher studied and analyzed the design of educational curriculum reform based on positive psychology. The experimental study showed that designing education curriculum reform based on a positive psychology orientation was more feasible than standard educational curriculum reforms and that the role of "grit" was considerably higher in educational curriculum reforms with a positive psychology orientation than in traditional educational curriculum reforms.

Jiang et al. (2023) stated that providing advanced specialized content knowledge (SCK) to promote pedagogical content knowledge (PCK) among in-service teachers is an area of concern in physical education (PE). Cooperative Learning (CL) is seldom used in China, where Direct Instruction (DI) is often used to help PE teachers. In this study, 72 in-service physical education (PE) teachers (23, 22, and 27 in the scaffolding, CLS, and DI conditions, respectively) from 12 middle schools in Chengdu,

Sichuan Province, were selected to participate. During the training sessions, CL and CLS participants were divided into mixed-gender groups using the CL program (jigsaw) , while DI participants were synchronized to the same training sessions. The post-test showed that participants in the CLS program improved their scores from pre-test to post-test more than participants in the DI program. Among participants in the CLS and DI programs, post hoc analyses indicated that their scores improved more between the pre-test and post-test than did participants in the DI program. Correlational analyses indicated positive correlations between posttest scores, PCK, and teaching self-efficacy in each case.

Zhang et al. (2013) discussed sociocultural theory (SCT). In particular, three important concepts from Vyotsky's theory: self-regulation, the Zone of Proximal Development (ZPD), and scaffolding all of which were discussed in many second language acquisition (SLA) and second language learning (SLL) research papers. The purpose of this study was to examine SCT by assessing collaborative learning in a Chinese-speaking environment. The article focuses on teacher-student collaboration and concludes that implementing collaborative learning requires changes in perceived learning and teaching styles as well as teacher-student relationships.

Li et al. (2022) aimed to explore a peer tutoring model for collaborative learning of mathematical problem solving (MPS) in a flipped classroom and its impact on group performance. The quantitative data collected consisted of 32 videos of eight groups of students in each of the four MPS phases, which were designed according to a simplified version of the Polya four-phase model, as well as the worksheets they completed in each phase. The video data were coded according to a framework of low-level and high-level cognitive behaviors and managerial behaviors and analyzed using lagged sequence analysis, from which three peer tutoring models were identified: organization-oriented, cognitive-supported, and cognitive-guided. Analysis of variance (ANOVA) showed that the group guided by cognitively guided tutors performed significantly better than the group guided by cognitively supportive and

organizationally oriented tutors, and the difference in performance between the two did not reach a significant level. The findings suggest that training for peer tutors should focus more on how to stimulate higher-level cognitive thinking skills rather than organizational skills.

Zheng et al. (2022) who developed an instructional model based on positive psychology theory to improve the emotional regulation ability of Chinese college students, addressing issues related to academic boredom and intrinsic motivation. The results showed that, compared to the control group of 87 students, the 86 students who implemented the new instructional model had a significant reduction in academic boredom related to learning and classroom activities and a notable improvement in emotional regulation ability.

Li et al. developed and validated the Situational Judgment Test of Emotion Regulation in Chinese Youth (STER-CY). Three samples were recruited for the study, and approximately 4,380 students in grades five through eleven (no ninth graders) participated. The researchers collected emotional situations and responses based on the lives of the local samples and examined the reliability and validity of the test scores. Correlations between the test and several outcome variables related to emotion regulation confirm criterion-related validity. The study also found that girls scored higher than boys on the test and that emotion regulation significantly improved between the fifth and seventh grades, but not between the seventh and eleventh grades. Taking together, these findings suggest that the STER-CY is a psychometrically reliable measure of emotion regulation ability that can be used in future research and practice.

5.2 Foreign studies

Tim Patston & Lea Waters (2015) explored the intersection of studio-music pedagogy and positive psychology in schools to enhance students' learning and engagement. Their practitioner-centered research proposed a new model of studio teaching, the Positive Instruction in Music Studios (PIMS) model, which instructs teachers to use four key positive psychology processes in music lessons: positive

priming, strengths spotting, positive pause, and process praise. The model provided a new, positively oriented approach to studio music teaching pedagogy that could be integrated into a curriculum based on specific methods to enhance student learning and engagement.

Voerman et al. (2014) investigated teacher feedback in the teaching steps from a cognitive psychology perspective. Taking a positive psychology perspective, they described the possible consequences of two concerns of positive psychology: (1) the importance of (positive) emotions and (2) character strengths. They argued that emotions are an important issue in discussions about feedback and the oversimplification of feedback about the self. To stimulate positive emotions and character strengths, they suggested a focus on progress feedback as a complement to gap feedback.

Chodkiewicz et al.'s (2016) research was about the importance of well-being, resilience, and mental health in children and young people. The new era of student-centered pedagogical practices dedicated to improving student well-being has been supported not only by researchers and psychologists but also by schools and educational authorities. While researchers started to express cautious optimism about the effectiveness of such interventions, there was still a huge gap between the initiatives in the research and what was being taught in the classroom. Several key constraints, such as limited resources, overcrowded curricula, availability of information, teacher factors, and quality of training, all played a role in the effectiveness of the implementation of the interventions. This study reflected recent developments in school-based programs in positive psychology and offered insights into how these programs could be strengthened to reach a wider range of youth and how they could be more effectively translated into classroom practice.

Rocca et al. (2014) presented a pilot study on the development and application of "General Didactics" in academic year 2012/13, combining collaborative learning approach and peer tutoring. The students were from the University Roma Tre.

The pilot study was divided into two parts: a) describing and analyzing the data collected after the questionnaire, which was designed to understand the atmosphere of the students in the work group; and b) investigating the impact of the collaborative activities on the students' performance: the performance of the students who had participated in the collaborative activities was compared with the performance of those who had not participated in the collaborative activities, and it was observed whether or not there was an increase in the average performance of the students in the "General Didactics" examination. It was concluded that the "General Didactics" developed by combining collaborative learning approach and peer tutoring helped to reinforce their self-esteem, their sense of belonging to a community that learns, and their positive disposition towards the discipline and to the final exam.

Nokes-Malach et al. (2015) discussed hypothesized mechanisms that support and hinder group learning and reviewed insights and illustrative findings from research in cognitive, social, and educational psychology. They concluded by suggesting areas for future research to extend collaboration theory, as well as pointing out important features that educators need to consider when deciding when and how to incorporate collaboration into their teaching and learning activities.

Taylor et al. (2017) conducted a meta-analysis that demonstrates that social and emotional learning (SEL) interventions within school environments significantly improve students' emotional regulation and contribute to long-term psychological well-being.

Meng Huat Chau (2021) links two approaches, cooperative learning, and positive psychology, to create a less competitive, more positive, and more student-centered learning environment for language learners. The article explains eight principles of cooperative learning: maximum peer interactions, equal opportunities to participate, individual accountability, positive interdependence, group autonomy, heterogeneous grouping, teaching collaborative skills, and cooperation as a value. Cooperative learning encourages students to work with others toward a common goal,

while positive psychology encourages people to look for and build on the good in people and environments. The article explains cooperative learning and positive psychology and how they overlap and discusses how cooperative learning and positive psychology can be combined in language education, illustrating this combination with two sample lessons. According to Meng (2021, p. 4), the links between cooperative learning and positive psychology are summarized in the table below, and ideas for implementing their combination in teaching are attached:

Links between CL and PP with implementation ideas

CL Principle	Link with PP Principles	Implementation Ideas
Maximum Peer Interactions	Relationships with Others	Provide opportunities for students to collaborate with a range of people (peers and others)
Equal Opportunity to Participate	Strengths	Help students see and develop the strengths in themselves and others
Individual Accountability	Responsibility	Encourage students to exercise and develop their strengths by doing their fair share in their groups
Positive Interdependence	Kindness	Facilitate the view among students that by helping others they are also helping themselves
Group Autonomy	Positivity	Promote optimism among students so that they can learn via collaboration with peers and do not need to rely solely on teachers
Heterogeneous Grouping	Relationships with Others	Help students appreciate the advantages of connecting with people different from themselves
Teaching Collaborative Skills	Gratitude	Encourage students to express gratitude for specific qualities and actions of groupmates
Cooperation as a Value	Meaning	Teach the view that cooperation bears the promise of not only greater individual success but also greater fulfilment from helping others

Figure 8 Links between Cooperative Learning and Positive Psychology with Implementation Ideas

Source: Meng, H. C., 2021, p. 4

Fiona Patterson et al. 2012 provided a systematic review of the emerging international research evidence on the use of Situational Judgment Tests (SJTs) to test non-academic attributes that are important in the selection process (e.g., empathy, integrity, and resilience). They searched for empirical studies on SJT published between

1990 and 2010. In addition, personal contact was made with experts in the field to identify any unpublished studies or work in progress to obtain the most up-to-date information. Finally, the bibliography was also consulted for other relevant journal articles and further research. Research evidence suggests that the SJT has good reliability, predictive validity, and incremental validity in testing a range of professional attributes (e.g., empathy and integrity) compared to personality and IQ tests.

SEONG HEE CHO in 2016 explored important psychometric issues regarding Emotional Intelligence Situational Judgment Tests (EI SJTs), including nonsensical dimensionality results, ambiguous facet constructs, and low Cronbach's alpha. The ultimate goals of the study included a better understanding of EI constructs and advancing psychometric analyses that assess EI measures in the form of the SJT. The results of the study found that the SJT measuring Emotional Understanding (STEU) has five basic dimensions, which tend to have non-compensatory relationships with each other. The SJT measuring emotional management (STEM) revealed that four strategies are required to perform well on the test, and that these four strategies interact in a compensatory manner.

Koschmieder and Neubauer developed a novel SJT for emotion regulation in 2021 and implemented it in the teacher education admission exam. They state that the ability to manage one's own and other's emotions is highly relevant for teacher education, but to assess it during the selection process, personality questionnaires may be subject to falsification, and the Situational Judgment Tests (SJT) are not considered to be affected by falsification. They used a combination of inductive and deductive item construction methods to improve test quality (item homogeneity and measurement fairness). Their goal was to develop a theory driven SJT for interpersonal versus intrapersonal emotion regulation in teaching and learning contexts. Their final test consisted of 22 items, each with four alternative responses expressing one of four emotion regulation strategies. In two studies, they examined the psychological quality, fairness, and validity of the test, as well as its relationship to cognitive ability and

personality. The findings indicated that the test was psychometrically sound and gender-fair according to the 1PL Rasch model.

In conclusion, the above study shows that it is feasible to use the instructional model developed by the positive psychology theory and collaborative learning approach in the classroom to enhance students' self-emotional regulation ability. Students' self-emotional regulation ability can be assessed by using pre-tests and post-tests based on Situational Judgment Tests as well as classroom observation.



6. Conceptual Framework



Figure 9 Conceptual Framework

CHAPTER III

RESEARCH METHODOLOGY

The focus of this research was to: 1) study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China 2) develop and assess the quality of an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China 3) implement and study the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach and 4) explore students' satisfaction towards learning with an instructional model based on positive psychology theory and collaborative learning approach to enhance university students' self-emotional regulation ability in China.

This chapter describes and explains the steps involved in 1) studying students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented for self-emotional regulation ability enhancement, 2) research design and development, 3) implementing and studying the results of university students' self-emotional regulation ability after implementation of the instructional model, 4) exploration of students' satisfaction towards the instructional model as follows.

The overall research procedure comprised four important and necessary steps including studying students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented to enhance students' self-emotional regulation ability, design, development and assessment, implementation, and evaluation. The study of basic information related to students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented to enhance the university students' self-emotional regulation ability for instructional model development to enhance students' self-emotional regulation ability was done through the review of documents and

interviews. Design, development, and assessment were identified through what was done and how to solve the problems implementation and studying the results of students' self-emotional regulation ability was involved in the activation of an instructional design, and the evaluation was the process of working towards the achievement of the desired objectives aimed at validating progress rather than an evaluation or judgment of results. Therefore, the research procedure was summarized according to the research flowchart below.



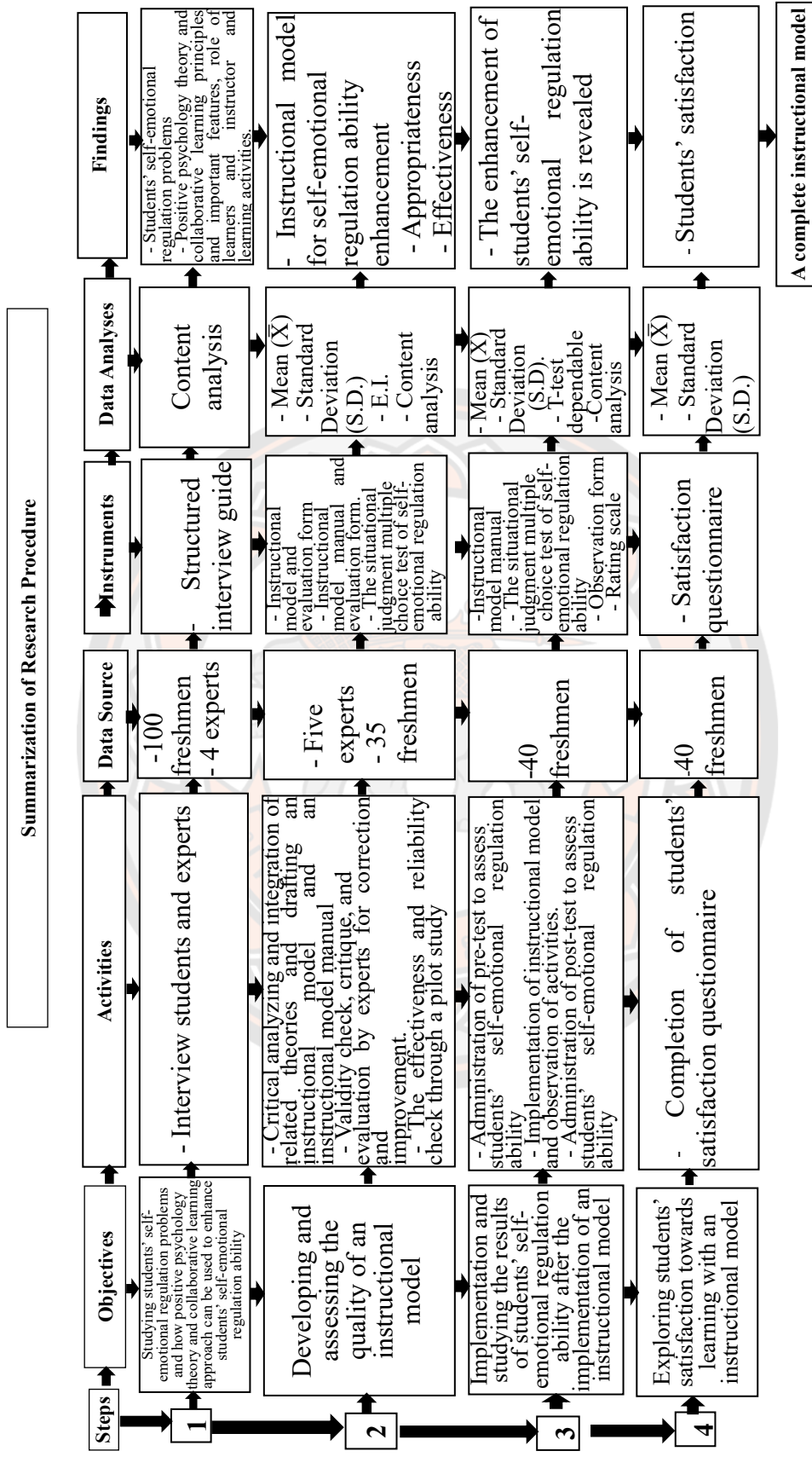


Figure 10 Summarization of Research Procedure

Step 1: Studying students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China

The researcher studied students' self-emotional regulation problems and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China. The positive psychology theory and collaborative learning approach principles and features, instructor's role, students' role, and learning activities were studied to develop an instructional model based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability. This work was done through the review of documents, and interviews with students and experts.

Data Source

Data came from students and experts.

1. The researcher interviewed 100 randomly selected freshmen students from five majors at Guangxi University of Science and Technology, China, who provided information about self-emotional regulation problems.

2. Four experts (researchers in the field of utilizing positive psychology theory or collaborative learning approach to enhance students' self-emotional regulation ability or related fields) were interviewed about positive psychology theory and collaborative learning principles and important features, instructor's role, students' role, and learning activities and how they can be implemented to enhance the self-emotional regulation ability of university students. All respondents had a doctoral degree and at least 5 years of teaching experience. The interview structure of these four experts was examined by the five experts invited in the second step.

Research Instruments

This phase of data collection was accomplished through structured interviews with students and experts.

1. For students, the researcher used structured interviews to gather information

about students' self-regulation problems. The items in the students' structured interviews were designed to know the students' basic opinion of self-emotional regulation and to study the problems students face in learning self-emotional regulation to enhance the related ability, including both personal aspects (less adept at regulating negative emotions in terms of situation modification, attentional deployment, and strategy choice) and non-personal aspects such as instructor-related problems (teaching methods, the learning environment, and the instructor's attitude), and general problems (unsociable, introverted, easily losing control, and others).

2. The researcher interviewed four experts. The main purpose of the interviews was to learn theoretical information about the principles and important features of positive psychology theory and collaborative learning approach, the roles of learners and instructors in the process of positive psychology implementation and collaborative learning, and learning activities that can be used to enhance the self-emotional regulation ability for Chinese university students.

Validity Check

All structured interviews after being checked by the academic advisors were submitted to the 5 experts to check the validity (IOC). The experts used for the validity check of research instruments were selected from different areas. Two experts are from the field of curriculum and instruction, one expert is from research and development, one expert is from measurement and evaluation and an expert is in the field of psychology. All experts have at least a Ph.D. degree or professorial qualification with at least 5 years of teaching experience. Each item was individually examined, and the approved items were selected and used. All suggestions, comments and opinions of the experts were noted as the instruments were revised and reordered. The structured interview had a validity value of 1.00.

Data Collection

The researcher conducted the interviews herself. To obtain directly relevant information promptly, she conducted face-to-face interviews with the relevant parties

and took notes based on the information provided by the parties.

The interview steps were as follows:

The researcher first interviewed the students. Because of the large number of interviewees, the researcher used a combination of individual and group interviews. Secondly, the researcher interviewed the experts. She met the experts personally. During the various interviews, the researcher took notes based on the information provided by the person.

Data Analysis

This study analyzed the data obtained from the structured interviews using content analysis. The data was categorized into two distinct sections as follows:

1. The results of studying students' self-emotional regulation problems. The results of studying students' self-emotional regulation problems considered information related to both personal aspects (less adept at regulating negative emotions in terms of situation modification, attentional deployment, and strategy choice) and non-personal aspects such as instructor-related problems (teaching methods, the learning environment, and the instructor's attitude), and general problems (unsociable, introverted, easily losing control, and others).

2. Results of expert interviews on how to implement positive psychology and collaborative learning approach to successfully enhance students' self-emotional regulation, considering the principles and important features of positive psychology and collaborative learning approach, the role of the learners and instructor, and learning activities.

Step 2: Developing and assessing the quality of an instructional model in mental health education based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

The initiation of an instructional design requires a management system that builds upon and drives to completion a basic plan for enhancing present self-emotional

regulation problems. In this second step, a critical review of positive psychology and collaborative theory was needed to set the stage for developing an instructional model to enhance students' self-emotional regulation.

The researcher used deductive and inductive approaches to construct a conceptual framework and develop an instructional model to enhance students' self-emotional regulation ability. Deduction is a way of thinking that draws conclusions from general rules and principles and derives testable hypotheses from theories (McIntyre, 2005, pp. 30-31). In this study, the researcher used the deductive approach to investigate and collect the best conclusions about theories and concepts that were used as a basis for the development of an instructional model.

The researcher summarized, analyzed, and synthesized the data obtained from the study of students' self-emotional regulation problems, the practical and theoretical information on the principles and important features of positive psychology and collaborative learning, and the role of the learners and instructor, and learning activities obtained from the interviews with students and experts in the first phase of the study.

Induction is a way of thinking that involves generalizing by accumulating evidence. The generalizations made by the inductive method are more or less likely to be true depending on the strength of the evidence (McIntyre, 2005, pp. 30-31). The researcher used this approach to check the quality of instructional model development.

Draft of an Instructional Model

A critical review of positive psychology theories, collaborative learning methods, and self-emotional regulation instructional strategies was conducted and used as the theoretical basis for developing an instructional model to enhance students' self-emotional regulation ability.

1. Positive psychology theory

Positive Psychology Theory is a scientific approach that systematically explores and investigates positive emotions, character strengths, and meaningful

experiences, with the aim of understanding and promoting the flourishing and well-being of students. It serves as the theoretical foundation for the development of an instructional model in mental health education, emphasizing empirically supported interventions to facilitate positive outcomes and enhance self-emotional regulation abilities for Chinese university students.

2. Collaborative learning approach

According to Johnson & Johnson (1998), cooperative learning is when students work together to solve problems, share knowledge, and support each other. Learning methods include group learning and interaction, often involving elements such as clear objectives, division of roles, and social interaction skill development. Collaborative learning can be defined as an instructional method that encourages active participation and collaboration among college students in small groups. In this approach, learners at different levels work together in small groups or pairs to achieve common learning goals. Learners are responsible not only for their learning but also for each other's learning. It emphasizes shared responsibility, positive interdependence, and a supportive learning environment in which students actively interact, engage in constructive dialogue, and co-construct knowledge. Collaborative learning allows students to practice enhancing self-emotional regulation ability through dialogues, discussions, role-plays, and games. In this study, students formed groups in their mental health education classes to discuss emotional challenges, analyze cases related to self-emotional regulation, and share positive experiences of self-emotional regulation within the group, aiming to enhance self-emotional regulation ability.

3. Learning process based on positive psychology theory and collaborative learning approach

The following combines the principles of positive psychology theory and collaborative learning approach to design the learning process and the implementation of ideas to enhance university students' self-emotional regulation ability:

Step 1: Concept explanation and task publication: The instructor provides

a thorough introduction to topics related to mental health education and important theories of self-emotional regulation. This serves to enhance students' understanding of the learning task. Additionally, the instructor inspires students to reflect on their previous experiences of self-emotional regulation, such as how they regulate emotions during situations like breakups or dealing with academic setbacks. This information, coupled with the student's existing knowledge, is used to tailor the task. Publics a specific task for the day while the instructor sets positive goals and encourages students to think positively. This can be combined with real-life examples or edited videos for students' better understanding.

Step 2: Formation of supportive learning groups and division of labor: Students are grouped and establish group norms for emotional safety. Each group is assigned specific roles for positive psychology theory and collaborative learning sessions, including a leader, recorder, sharer, observer, and reporter. While group members remain constant throughout the course, the allocation of roles varies for each session. It is important to ensure heterogeneous grouping, pairing weaker students with stronger ones to facilitate mutual learning and positive growth. The groups should be formed with consideration of a balanced mix of abilities and backgrounds.

Step 3: Collaboration and identification of strengths: This stage reflects the division of labor and active collaboration within the group to solve problems together and regulate self-emotions. The leader guides group members to participate in discussions based on the topic, provides examples, clarifies task objectives, and facilitates peer support and feedback. The sharer primarily focuses on sharing positive strategies and processes for regulating non-positive emotions. The recorder is responsible for documenting the group's discussions, while the observer pays close attention to the overall performance of group members and identifies the strengths of the peers. Upon completing the task, the observer provides positive feedback regarding the group's collaborative efforts. During this stage, students can practice

self-emotional regulation strategies actively and create a positive classroom environment through collaboration and participation.

Step 4: Sharing and gratitude expression: This step is a reflection on the group's growth and progress and summary of experiences, reinforcing the positive collaborative learning process. The designated reporter listens attentively throughout the group's discussions, and once the sharer has completed their presentation and the observer has provided positive feedback, the reporter compiles the group's learnings and presents them to the class. They will express gratitude to the instructor and peers at the end of their sharing, which can reflect positive relationships and social support. This step is essential for the comprehensive application of positive psychology theory, consolidating learning outcomes and promoting positive collaborative learning experiences, and allowing a diverse group of students to practice summarizing self-emotional regulation strategies.

Step 5: Growth and progress feedback: In this stage, the instructor refrains from interrupting students while they provide their group summaries. After students have completed their summaries, the instructor offers growth and progress feedback based on the group's presentation and the utilization of emotional regulation steps. The feedback is primarily aimed at encouragement and appreciation. Furthermore, the instructor reinforces the key aspects of self-emotional regulation that students need to focus on, ensuring they become adept at regulating their emotions across various situations. Finally, the instructor summarizes the day's learning and reviews key knowledge.

This learning process seamlessly integrates positive psychology theory and the collaborative learning approach, creating a supportive and motivating environment that fosters not only subject knowledge but also self-emotional regulation ability, self-awareness, and effective collaboration. It promotes a holistic approach to education, equipping students with valuable tools to navigate both academic challenges and life's emotional complexities.

4. Instructional model framework

An instructional model for enhancing students' self-emotional regulation ability was developed based on the instructional model created by Smith and Ragan (2005) and Morrison et al. (2019). The framework of the model is as follows:



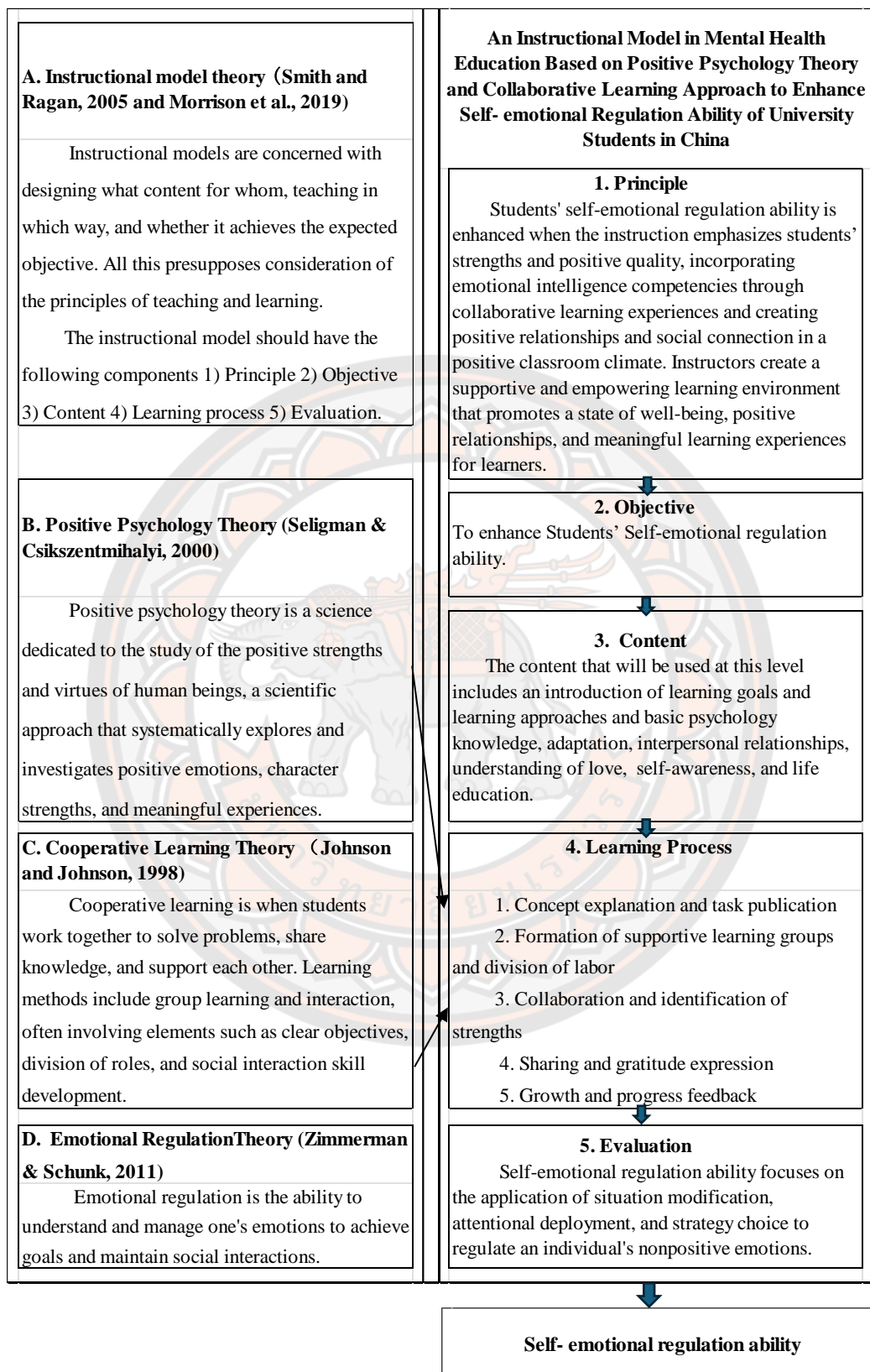


Figure 11 Instructional Model to Enhance Self-Emotional Regulation Ability

5. Evaluation of the Instructional Model

Data Source

Data at this level came from five experts. These experts were selected for the content, the innovation created as well as a research expert. Five experts were selected to examine, evaluate, and provide comments and recommendations on the quality of the developed pedagogical model. The criteria for the selection of subject matter experts and professionals were based on some basic elements applicable to this study. The experts have at least a doctoral degree or professorial qualification and at least 5 years of work experience in the various fields selected. Learning activities are chosen, organized, and composed by the researcher and checked by the academic advisors and experts from the major of curriculum and instruction, research and development, measurement and evaluation, and psychology. After the experts examined and evaluated the instructional model, 35 freshmen from Guangxi University of Science and Technology (GUST) tried out four units of the model. The students did a pre-test and a post-test before and after they tried out the instructional model in four units. This group of students was similar to the sample group but different from the initial sample group.

Research Instruments and Development of Research Instruments

1. Research instruments

The instructional model and manual evaluation used the following instruments:

1.1 Instructional model evaluation form

1.2 Instructional model manual evaluation form

2. Development of research instruments

In developing the instructional model evaluation form, the researcher studied documents on how to develop an instructional model evaluation form and an instructional model manual. The information of interest focused on the potential components of instructional model development (principle, objective, content, learning

process, and evaluation). A 5-level scale ranging from 1-5 was used by experts from the instructional model and instructional model manual evaluation.

Table 3 Elements of Validity Check

Elements of Validity Check	Level of Appropriateness				
	5	4	3	2	1
Principle					
Objective					
Content					
Learning process					
Evaluation					

The instructional model manual evaluation form consisted of thirteen key elements, and it was used to evaluate all materials that were used to enhance students' self-emotional regulation ability

Table 4 Key Elements of Instructional Model Manual

Key Elements of Instructional Model Manual	Level of Appropriateness				
	5	4	3	4	1
The introduction of the instructional model manual is clear.					
The instructional model directions are well comprehended.					
The objective of the instructional model manual is clear and relevant to the difficulties of Chinese university students.					
The introduction of using an instructional model is suitable.					

Key Elements of Instructional Model Manual	Level of Appropriateness				
	5	4	3	4	1
The requirement of a learning environment is conducive to the development of the instructional model					
The instructor's role is articulated and easy to implement.					
The students' role is articulated and easy to implement.					
The learning procedure is well organized and connected.					
The learning content is appropriate for students at this level.					
The learning materials are related to the learning content.					
The timeframe is applicable for both the lesson and practical activities.					
All lesson plans give a clear description of the learning process.					
The evaluation is related to the objectives of the instructional model.					

Data Collection

1. Data collection was done by using the instructional model evaluation form. The form was completed by 5 experts to express their level of appropriateness and recommendations.

2. A class of 35 freshmen was used to test the effectiveness index of the instructional model with pilot study.

Data Analyses

The results were analyzed using descriptive statistics (Mean (\bar{X}) and Standard Deviation (S.D.)). The second part of the evaluation form which required experts to

give comments and suggestions was analyzed using content analysis. A mean score of 3.50 or higher was considered appropriate by the experts for the development of an instructional model based on positive psychology theory and collaborative learning approach to enhance university students' self-emotional regulation ability. The experts recommended that the researcher pilot test the instructional model in conjunction with the instructional model manual and other relevant documents. Then the instructional model was pilot-tested with 35 first-year students from Guangxi University of Science and Technology in the first semester of the 2024 academic year to examine the practicality and effectiveness of the instructional model.

Scoring Transformation for Appropriateness of the Instructional Model

The results were analyzed and interpreted according to the specified evaluation criteria (Rattana, 2019, p.35), and the validity scores were interpreted as follows:

4.50 - 5.00: The highest level of suitability and acceptance

3.50 - 4.49: The high suitability and acceptance

2.50 - 3.49: The medium level of suitability and acceptance

1.50 - 2.49: The lower suitability and acceptance

1.00 - 1.49: The lowest level of suitability and acceptance

An effectiveness index (E.I.) ≥ 0.50 was considered an effective instructional model. According to Goodman, Fletcher, and Schneider's (1980, pp. 30-34) formula, the effectiveness index (E.I.) of an instructional model based on positive psychology theory and collaborative learning approach was calculated as follows:

$$\text{Effective Index (E.I.)} = \frac{\sum post - \sum pre}{(S)(N) - \sum pre}$$

Where: $\sum post$ = Sum of post-test score

$\sum pre$ = Sum of pre-test score

S = Full score

N = Total number of students

$$\text{Effective Index (E.I.)} = \frac{757 - 399}{(30)(35) - 399}$$

$$\text{Effective Index (E.I.)} = \frac{358}{651} = 0.55$$

The results of the pilot study were used to further improve an instructional model to enhance self-emotional regulation ability including developmental process, research tool development, activities, and the process of instruction. The instructional model had an effective index of 0.55.

Step 3: Implementation and studying the results of university students' self-emotional regulation ability after learning with an instructional model based on positive psychology theory and collaborative learning approach.

This phase describes the process of implementing the planned instructional model for enhancing students' self-emotional regulation ability.

Experimental Research Design

The researcher employed a one group pre-test and post-test design according to Rattana Buosonte (2019, p. 42) combining qualitative and quantitative data collection as follows:

Experimental Group	Pre-test	Treatment	Post-test
Gr.1	O ₁	T	O ₂

Where:

Gr.1 Represents experimental group

O₁ Represents the core test before the implementation of the instructional model (Pre-test)

T Represents treatment

O₂ Represents the core test after the implementation of the instructional model (Post-test)

Based on the design described above, the study was conducted with only one group. This group received a pre-test and a post-test. The pre-test was designed to assess the students' self-emotional regulation ability before the implementation of the

instructional model. After the pre-test, the sample group received treatment. The treatment is based on the steps of the developed instructional model based on positive psychology theory and collaborative learning approach. At the end of the treatment, a post-test was administered to assess and evaluate the students' self-emotional regulation ability after learning the instructional model.

Data Source

Course participants included 40 clustered randomly selected freshmen from a total of 10 classes in Guangxi University of Science and Technology.

The study was conducted during the first semester of the academic year 2024. The researcher taught the course in person. The planned experiment lasted for 6 weeks (24 hours). Activities were conducted twice a week (2 hours per week).

Course Procedure for the Experiment

To conduct this study and collect data, the research procedure was divided into the following three steps:

Before the Experiment

Before experimenting, the researcher reviewed the course outline, course objectives, and course descriptions and made the following preparations:

1. The researcher created research instruments such as 1) an instructional model manual containing lesson plans, 2) questions to students during or after class (regarding the suitability of the instructional model), 3) Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability, and 4) students' satisfaction questionnaire.

2. Experts were invited to review the research instruments to ensure consistency of validity.

3. The researcher pilot-tested four units of lesson plans, a Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability (pre-test), and satisfaction questionnaires on a sample of 35 freshmen from Guangxi University of Science and Technology (tryout group) to check the effectiveness of the tools and the

teaching model.

4. The researcher held an orientation session with the sample group. The purpose of the orientation session was to explain the course objectives and other relevant information to the students.

The Learning Process Proper

To assess the students' self-emotional regulation ability, it administered a pre-test of self-emotional regulation ability and recorded the scores. After that, the students followed the learning steps of conception explanation and task publication, formation of supportive learning groups and division of labor, collaboration and identification of strengths, sharing and gratitude expression, and growth and progress feedback using an instructional model based on the positive psychology theory and the collaborative learning approach.

The researcher observed students' activity and participation in the classroom. The implementation of the entire instructional model took place over a semester and included orientation, pre-tests, implementation, post-tests, and student satisfaction.

After the Implementation of the Model

1. A Situational Judgment Multiple Choice Test of self-emotional regulation ability (post-test) was administered at the end of all courses.
2. Student responses to satisfaction questionnaires were collected.
3. The data obtained was analyzed to answer the research questions.

Course Context

This phase of instruction includes introduction, adaptation, interpersonal relationships, understanding of love, self-awareness, and life education. The course content included relevant real-life situations to enhance students' self-emotional regulation ability. These real-life situations and activities were selected, organized, and choreographed by the researcher and checked by academic advisors and experts. The learning model was designed using proven research findings in the field of pedagogy such as positive psychology theory, collaborative learning activities, and real-life

structured situations. Authentic situations and activities were used to motivate students and promote understanding and skill development.

Learning Module

This learning module addresses a real-life, intricate issue centered on the enhancement of students' self-emotional regulation ability. It was meticulously crafted and developed by researchers. The module's design was grounded in established research findings within the field of pedagogy related to self-emotional regulation. The core of this module revolved around the integration of genuine, complex real-life situations and relevant problems into the learning activities. These activities necessitated students to apply their self-emotional regulation ability effectively to navigate and resolve these challenges. Within the framework of this learning model, active student participation and interaction were paramount. Students engaged in various classroom-based learning activities, collaborated in group endeavors, participated in role-playing exercises, and immersed themselves in communication and dialogic activities. These interactions collectively served as the crucible for developing and honing their self-emotional regulation ability.

Learning Activities

Learning activities were organized to enhance students' self-emotional regulation ability and conducted in small groups, in which each group had a fixed membership, but with a different division of labor for each session to ensure effective collaborative learning. There was a total of leader, recorder, sharer, observer, and reporter, with a clear task of discussing, sharing, observing, summarizing, etc. learning around examples or videos provided by the instructor.

Research Instruments

The research instruments used for this phase of qualitative and quantitative data collection included the Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability, the instructional model manual, and the observation form. The descriptions, construction steps, and procedures for each instrument were discussed

below:

1. Situational Judgment Multiple Choice Test of Self-Emotional Regulation Ability

The tests consisted of different tasks that considered different emotional regulation strategies. The Self-Emotion Regulation Ability Multiple Choice Test as a pre-test and post-test was administered to a sample group to assess and evaluate their emotional regulation ability. This was conducted before and after the implementation of the instructional model. Three different tasks were considered in developing this test 1) situation modification, 2) attentional deployment, and 3) strategy choice. The sample questions are below:

Chen Li's desk mate is rude. He often uses Chen Li's pens without permission. Chen Li wants to make him feel shameful and guilty about his behavior. Which action would be the most effective to make him feel shameful and guilty?

- A. Tit for tat.
- B. Criticize him for his behavior.
- C. Do not lend him anything.
- D. Tell him how others feel about his behavior.

2. Lesson plans

The lesson plans of the university mental health education program in this study based on positive psychology theory and collaborative instructional approach consisted of 6 topics and the study will last for 8 weeks as shown below:

Table 5 Lesson Plans

Weeks	Lessons	Learning Topics	Content	Lesson objectives	Learning activities	Time (Hours)
1	1		Orientation of learners on instructional model implementation Pre-test	Through the application of an instructional model based on	Step 1: Concept explanation and task publication: The instructor introduces mental health topics and self-emotional regulation	2
2			Introduction	positive psychology theory and collaborative learning	theories, prompting students to reflect on their own emotional regulation experiences.	2
2	3	Introduction	Psychological counseling for university students			2
3			Adaptation to university life		Step 2: Formation of supportive learning groups and division of labor: Students are divided into groups, establish emotional safety norms, and are assigned roles	2
3		Adaptation	Adaptation to academic study and teaching methods	approach, students are helped to recognize emotions and	(leader, recorder,	2
4	6	Interpersonal relationships	Interpersonal interaction theory			

Weeks	Lessons	Learning Topics	Content	Lesson objectives	Learning activities	Time (Hours)
7			Socializing with roommates/strangers	understand the characteristics of	sharer, observer, reporter). Roles rotate each session.	2
8			University students' expression of friendships and love	their own emotions. They will learn	Step 3: Collaboration and identification of strengths: Group members collaborate to solve problems and regulate emotions.	2
5		Understanding of love	Psychology of university students' social and sexual interactions	how to regulate their emotions, learn to express their emotions	The leader facilitates discussions, the sharer shares emotion regulation strategies, the recorder documents, and the observer identifies strengths and gives feedback.	2
10			Analyze your personality traits and understand common self-awareness biases	correctly, and change their behavior to enhance their	Step 4: Sharing and gratitude expression: Groups reflect on progress, summarize experiences, confidence	2
6		Self-awareness	Discover personal strengths and build self-confidence	self-emotional regulation ability.		2

Weeks	Lessons	Learning Topics	Content	Lesson objectives	Learning activities	Time (Hours)
	12		Put life and death in perspective, cherish life		and express gratitude for the collaborative process.	2
7		Life education	Cope with life's unexpected misfortunes, stress, and frustration		Step 5: Growth and progress feedback: Students present summaries, and the instructor provides feedback focused on emotional regulation and group progress.	2
	14		Post-test			1
8		Final class	Respond to students' satisfaction questionnaire			1
					Total	28

The lesson plans were constructed with the following procedures taken into consideration:

2.1 The researcher studied the curriculum, objectives, and activities of the instructional model.

2.2 The researcher prepared lesson plans based on the principles of teaching stated in the instructional model: interaction, discussion, and presentation using cases from the assigned materials. In addition, positive psychology theory and collaborative activities were considered.

2.3 The experts in psychology teaching and learning and pedagogy examined the lesson plans in terms of correctness of content and language, relevancy of the objectives and organization. The experts used at this level were the same people who evaluated the instructional model.

2.4 Following the experts' recommendations, the researcher revised, modified, and made some changes to the lesson plans in terms of weaknesses that needed improvement.

3. Classroom Observation Record

The researcher observed the group performance during the collaborative learning session of each class. The instructor's record sheet was completed regarding the observer's record sheet in the group. Observations provided information about interactions between students, between students and the instructor, classroom atmosphere, student performance, and interactions during the learning process.

Table 6 Observation Elements of Classroom Activities

No.	Observation Elements of Classroom Activities		
1	Student group division of labor and collaborative interaction	Leader	
		Recorder	
		Sharer	
		Observer	
		Reporter	
2	Interaction between students and instructor		
3	Classroom atmosphere		
4	Use of instructional materials		
5	Growth and progress feedback evaluation		

The applicability of the Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability was checked while the experts evaluated the lesson plans.

4. Rating Scale

The components of the self-emotional regulating rating scale focused on situation modification, attentional deployment, and strategy choice. From the rating scale, each student's self-emotional regulation ability was assessed in ten situations, each of these situations had three questions. This means that each student was assessed in different situations, and this gives a total score of 30 points.

Based on the rating criteria, a rating system of poor, fair, medium, good, and excellent is derived from 30 points as follows: poor = 1-10, fair = 11-15, medium = 16-20, good = 21-25, and excellent = 26-30.

Table 7 Self-Emotional Regulation Overall Performance Rating Scale

Rating Level	Score Range	Description
Poor	1-10	Demonstrates poor ability in situation modification, attentional deployment, and strategy choice, unable to effectively cope with emotional challenges.
Fair	11-15	Has basic awareness of situation and attention but lacks flexibility in strategy choice, with limited effectiveness.
Medium	16-20	Can identify situations and deploy attention, choosing some effective strategies, but needs improvement in complex scenarios.
Good	21-25	Effectively modifies situations, flexibly deploys attention, and chooses appropriate strategies, demonstrating strong coping ability.
Excellent	26-30	Excels in situation modification, attentional deployment, and strategy choice, efficiently managing emotions and guiding others.

Validity Check of Research Instruments

The researcher presented the Situational Judgment Multiple Choice Test of Self-Emotional Regulation Ability to five experts to check the content validity and appropriateness of the instrument. These experts have at least a doctoral degree or professorial qualification and at least 5 years of work experience in various fields. The experts come from the major of curriculum and instruction, research and development, measurement and evaluation, and psychology. Before the content validity check, the researcher explained to the experts the criteria for assessing the Situational Judgment Multiple Choice Test of Self-Emotional Regulation Ability. Each item was reviewed individually, and all the experts' suggestions and comments were documented. The validity for the Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability was 0.80 while the lesson plans were at the highest level of appropriateness ($\bar{X}= 4.52$, S.D.= 0.81).

Reliability Check of the Research Instrument

All items of the Situational Judgment Multiple Choice Test of Self-Emotional Regulation Ability's pre-test and post-test and four-unit lessons were pilot-tested with a class of 35 freshmen from Guangxi University of Science and Technology (GUST). Items that did not elicit a clear understanding and were relevant to enhancing students' self-emotional regulation ability were reworded or modified. The reliability of The Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability was estimated using inter-rater reliability. The inter-rater reliability of the instrument was assessed by two experts in three areas (situation modification, attentional deployment, and strategy choice). Six contents include (1) Introduction, (2) Adaptation, (3) Interpersonal relationships, (4) Understanding of love, (5) Self-awareness, and (6) Life education. The scores of the two experts are used to calculate the correlation values of the Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability.

Assessing Self-Emotional Regulation Ability

Self-emotional regulation ability was assessed. Students perform in

organized positive collaborative groups. Collaborative activities were organized under the guidance of the instructor (researcher) where students discussed, shared, summarized, role-played, and Q and A to develop their self-emotional regulation ability on a specific case or situation at a specified time. Three components of assessment were considered in assessing the students' self-emotional regulation ability. These components include situation modification, attentional deployment, and strategy choice. One point was awarded to the student who selected the best or worst option correctly as required by the question. In the assessment process, the researcher used observation form, pre-test and post-test as instruments.

Table 8 Rating Instructions for The Situational Judgment Multiple Choice Test of Self-Emotional Regulation Ability

	The best options	The worst options
Situation modification	Be able to use problem-focused coping well, and reduce the negative impact of the situation on emotions	Not coping, unable to reduce the negative impact of the situation on emotions
Attentional deployment	Be able to focus attention on the non-emotional aspects of a situation, or divert attention away from the immediate situation altogether, to effectively regulate negative emotions	Continuously focus attention on the person or event causing the negative emotions and fail to regulate the negative emotions

	The best options	The worst options
Strategy choice	Be able to choose positive regulation strategies that positively influence physiological, experiential, or behavioral responses to effectively regulate negative emotions	Choosing negative regulation strategies that have no influence on physiological, experiential, or behavioral responses and fail to regulate the negative emotions

Data Analyses

Data at this stage was analyzed as follows:

3.1 Analysis of classroom observation records

Observations were conducted in each session of the class. Observations included student-student and instructor-student interactions, classroom atmosphere, applications of collaborative learning, positive feedback, group activities, and instructional materials. Data was analyzed using content analysis.

3.2 Analysis of self-emotional regulation ability from the pre-test and the post-test

The researcher statistically analyzed the data collected from students' pre-tests and post-tests using means, standard deviations, and t-test dependent to compare the differences in students' self-emotional regulation ability before and after the implementation of the instructional model. 10 questions were examined based on each component of self-emotional regulation ability, totaling 30 questions. The rating system corresponding to the score of each component was as follows: poor =1.0-3.5, fair=3.6-5.0, medium =5.1-6.9, good=7-8.4, and excellent =8.5-10.

Table 9 Self-emotional Regulation Specific Ability Rating Scale

Rating Level	Score Range	The components of self-emotional regulation ability	Description
Poor	1.0-3.5	Situation modification	Demonstrates poor ability in situation modification.
		Attentional deployment	Demonstrates poor ability in attentional deployment.
		Strategy choice	Demonstrates poor ability in strategy choice.
Fair	3.6-5.0	Situation modification	Basic ability to modify situations, reactive in simple contexts.
		Attentional deployment	Some effectiveness in attentional deployment but lacks consistency.
		Strategy choice	Limited strategy choice, struggling with complex scenarios.
Medium	5.1-6.9	Situation modification	Good ability to modify situations, adaptable in various contexts.
		Attentional deployment	Relatively effective attentional deployment.
Good	7.0-8.4	Strategy choice	Can choose appropriate strategies but needs improvement in complex situations.
		Situation modification	Strong ability to modify situations, flexible in adjusting to negative contexts.

Rating Level	Score Range	The components of self-emotional regulation ability	Description
Good	7.0-8.4	Attentional deployment	Effective attentional deployment, able to maintain focus.
		Strategy choice	Rich and effective strategy choices, able to meet various challenges.
Excellent	8.5-10	Situation modification	Outstanding ability to modify situations, proactively creating positive contexts.
		Attentional deployment	Extremely effective attentional deployment, hardly distracted.
		Strategy choice	Flexible and diverse strategy choices, easily handling various situations.

Step 4: Studying students' satisfaction towards learning with an instructional model

Design of Evaluation

The researcher explored students' satisfaction with learning using the instructional model. The evaluation of students' satisfaction monitored the achievement of established expectations.

Data Source

All students attending the course formed the source of data for this phase. All students learning with this instructional model participated in completing a satisfaction questionnaire.

Research Instruments and Implementation of Evaluation

It used the student satisfaction questionnaire as a research instrument in this phase.

Students Satisfaction Questionnaire

At the end of the Mental Health Education course, the researcher distributed a satisfaction questionnaire to gather student feedback on the course experience. The questionnaire was carefully designed to provide insight into student encounters with an instructional model specifically tailored to enhance self-emotional regulation ability based on positive psychology theory and collaborative learning approach. As a result, students' satisfaction indicated that the components under review (principle, objective, content, learning process, and evaluation) were successfully implemented to enhance self-emotional regulating ability. The students self-assessed their self-emotional regulating ability. Students rated their satisfaction using a five-point Likert scale (1=not at all satisfied, 2=not too satisfied, 3=more satisfied, 4=satisfied, and 5=very satisfied). This questionnaire consisted of 20 items as shown in Appendix.

Table 10 Key Elements of Students Satisfaction Questionnaire

No	Section	Items
1	Learning process	3 (1-3)
2	Learning content	3 (4-6)
3	Learning activities	4 (7-10)
4	Learning atmosphere	2(11-12)
5	Instructional materials	2 (13-14)
6	The role of the instructor	2(15-16)
7	Evaluation	2(17-18)
8	Self-emotional regulation ability development	2(19-20)

Validity Check

In the validity check, the researcher examined the students' satisfaction questionnaire for indicators of consistency. All questions on the students' satisfaction

questionnaire were reviewed by academic advisors and checked by 5 experts with at least 5-year experience in teaching psychology, curriculum, and instruction as well as research and development. Each item was individually reviewed and only those items that passed the review were used as survey questions. The students' satisfaction questionnaire had a validity of 1.00.

Reliability Check

All items of the students' satisfaction questionnaire were pilot-tested with a class of 35 freshmen at Guangxi University of Science and Technology. The items that failed to elicit clear understanding and targeted self-emotional regulation ability development were rewarded. The internal consistency reliability of the student satisfaction questionnaire was estimated using inter-rater reliability. The correlation value of the test was 0.70.

Data Analysis

The data obtained was analyzed as follows:

Analysis of Students' Satisfaction Questionnaire

The data for students' satisfaction with the instructional model learning process was analyzed using descriptive statistics (mean and standard deviation). Calculations were done using criteria for interpretation stated by Rattana Buosonte (2019). These methods were used to analyze data related to students' satisfaction to find out their level of satisfaction towards learning with the developed instructional model to enhance students' self-emotional regulation ability.

According to Rattana Buosonte (2019), the mean score was interpreted as follows:

4.50 - 5.00: shows the highest level of satisfaction

3.50 - 4.49: shows a high level of satisfaction

2.50 – 3.49: shows medium level of satisfaction

1.50 – 2.49: shows a low level of satisfaction

1.00 – 1.49: shows the lowest level of sat

CHAPTER IV

FINDINGS OF DATA ANALYSIS

This study aimed to develop an instructional model that used positive psychology theory and collaborative learning approach to enhance the self-emotional regulation ability for university students in China. This chapter presents the findings of the data analyzed for the four main research objectives, as outlined below:

1. To study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China.

2. To develop and assess the quality of an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

3. To study the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach.

- 3.1 To study self-emotional regulation ability before and after studying with the developed instructional model.

- 3.2 To compare self-emotional regulation ability before and after studying with the developed instructional model.

4. To explore students' satisfaction with an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

The findings based on the research objectives are presented below:

The findings of studying students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China.

The findings of studying students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China are presented as follows:

1. The findings of studying students' self-emotional regulation problems

The findings of studying students' self-emotional regulation problems revealed that students face both personal and non-personal problems.

Table 11 The Findings of Students' Self-emotional Regulation Problems

Issues under study	Findings and Evidence
A. Opinions of self-emotional regulation	<p>Significance of self-emotional regulation</p> <p>A study on the importance of self-emotional regulation showed that students considered the ability to regulate self-negative emotions to be very important, as being able to regulate self-negative emotions would be beneficial in life and work, improve stress resilience, and avoid psychological problems.</p> <p>Some of the students' responses in the interviews are as follows:</p> <p>“Self-negative emotional regulation can avoid causing problems for others.”</p> <p>“Negative emotions can influence a person's decisions, and we should learn to regulate it.”</p>

Issues under study	Findings and Evidence
	<p>“Regulating self-negative emotions allows me to stay positive.”</p> <p>“Being able to regulate self-negative emotions can ensure that you don't get caught up in your own emotions.”</p> <p>“Regulating self-negative emotions can reduce the risk of depression.”</p> <p>“Regulating self-negative emotions can make you feel good physically and mentally.”</p> <p>“Regulating self-negative emotions can alleviate pain.”</p> <p>“It is beneficial to regulate self-negative emotions.”</p>
B. Problems	
1. Personal problems	<p>Situation modification</p> <p>Students were unable to do situation modification after negative emotions arose. They tend to stay in the environment or scene that causes negative emotion. They do not modify the situation to a state that is conducive to self-emotional regulation.</p> <p>Some examples of responses provided by the students are as follow: "I get angry after I fight with someone, but I will stay in the classroom and keep thinking about the unpleasantness that just happened."</p> <p>Attentional deployment</p> <p>The results showed that the students had problems with attentional deployment. Students were unable to deploy their attention. Some of the students' interview responses are as follows:</p>

Issues under study	Findings and Evidence
	<p>The students' feedback includes the following example: "When I am frustrated, I don't know what to do to deploy my attention."</p> <p>Strategy choice</p> <p>The findings showed that students were not good at choosing positive strategies to regulate their negative emotions. Although they try to regulate their negative emotions, the methods they apply may not be positive, for example:</p> <p>Here are a few examples of the responses from students:</p> <p>"I may smoke a lot when I am upset."</p> <p>"I'll ask someone for a drink when I fall out of love, but I still have a hard time waking up".</p>
2. Non-personal problems	<p>Instructor-related Problems</p> <p>Instructor's teaching methods</p> <p>Regarding instructors' teaching methods, the results showed that instructors used instructor-centered teaching methods because they mostly concentrated on teaching theoretical knowledge using the lecture method, and students did not have the opportunity to practice methods of regulating their emotions in the classroom, nor did they have activities that can help them practice self-emotional regulation in the classroom.</p> <p>Some of the responses given by the students are as follows: "My instructor only teaches theoretical knowledge, and we can't practice relevant skills in class."</p> <p>"We don't do collaborative activities in class because</p>

Issues under study	Findings and Evidence
	<p>the instructor always asks questions to one student alone.”</p> <p>Instructor’s attitude towards students</p> <p>The findings revealed that some instructors used inappropriate expressions to evaluate students when they made mistakes in answering questions in class and as a result, students were reluctant to speak in class because they felt stressed. Some students also said that the classroom atmosphere was not relaxing, sometimes the instructors were very serious, or the theoretical knowledge they taught was too difficult to understand and students did not grasp the knowledge in the classroom and did not know how to apply it after the class.</p> <p>Examples of responses provided by the students include: “I don't want to speak in class because the instructor's comments stress me out.”</p> <p>“The atmosphere in the classroom is not relaxed, and everyone doesn't want to ask the instructor when they don't understand, for fear that the instructor will criticize them.”</p>
	<p>General problems</p>
	<p>Introversion and easily losing control</p>
	<p>A study on the general problems faced by students in learning self-emotional regulation revealed that being socially inept and introverted, as well as easily losing control, were some of the general problems faced by students in the learning process. Some of the students' responses are as follows:</p>

Issues under study	Findings and Evidence
	<p>The students' feedback includes the following examples: “I am introverted and not good at socializing, I don't know what to do or who to ask for help when regulating self-emotions.”</p> <p>“I am easily losing control and cannot regulate my emotions.”</p>

2. The findings of experts' interviews on how positive psychology theory and collaborative learning approach are implemented to enhance students' self-emotional regulation ability.

The presentation of the expert's interview results on how positive psychology theory and collaborative learning approach can be implemented to enhance students' self-emotional regulation ability considered the following aspects: principles and important features of positive psychology theory and collaborative learning approach, the role of learners and instructor in positive psychology and collaborative learning process and positive psychology and collaborative learning activities as follows:

Table 12 The Findings of Experts' Interviews on How Positive Psychology Theory and Collaborative Learning Approach are Implemented to Enhance Students' Self-Emotional Regulation Ability

Issues studied	Findings and Evidence
<p>Principles and important features of positive psychology theory</p>	<p>Based on the principles and important features of positive psychology theory, the following information was revealed:</p> <ul style="list-style-type: none"> - Positive psychology focuses on enhancing students' strengths and well-being rather than solely addressing

Issued studied	Findings and Evidence
	<p>weaknesses and pathologies.</p> <ul style="list-style-type: none"> - When applied to classroom teaching, positive psychology emphasizes a safe and positive classroom atmosphere. - Positive psychology sets positive goals and motivates students to participate in classroom activities. - Positive psychology should strive to foster positive interpersonal relationships. - Positive psychology involves learning steps that include discovering the strengths of others, giving positive comments, and expressing gratitude on time. After students complete their studies, the instructor provides progress feedback that is mainly based on encouragement and praise. <p>Expert: “Instructors should create a safe environment in the classroom where students feel safe emotionally and physically.”</p>
<p>Principles and important features of collaborative learning approach</p>	<p>Concerning the principles and important features of collaborative learning approach, the following information was revealed:</p> <ul style="list-style-type: none"> - Collaborative learning approach should encourage students to participate in all tasks for each activity from start to finish. - Collaborative learning focuses on interaction and sharing among students.

Issued studied	Findings and Evidence
	<p>- The learning steps involved in the collaborative learning approach include task description, student grouping and task assignment, collaborative task completion, presentation of learning outcomes, and feedback and correction.</p> <p>- Collaborative learning activities should be dynamic so that students enjoy participating in the exercises.</p> <p>Expert: “Students must participate in all tasks for each activity from start to finish.”</p>
<p>Role of the learners and instructors in positive psychology theory and collaborative learning process</p>	<p>The results of studying the role of the learners and instructors revealed that the instructor should create a safe environment in the classroom where students feel emotionally and physically secure. Heterogeneous grouping, explaining students' duties in the group, explaining tasks, actively encouraging students during the learning process, and giving positive feedback during group discussions and after reporting. Meanwhile, students also need to understand the content of the teaching, understand their duties in the group, participate in all the tasks for each activity from start to finish, actively discuss with their peers, practice methods of self-emotional regulation, and actively interact in the process of collaborative learning and reporting according to the tasks assigned by the instructor. They also seek help in areas they do not understand. Some of the responses provided by experts are given below:</p>

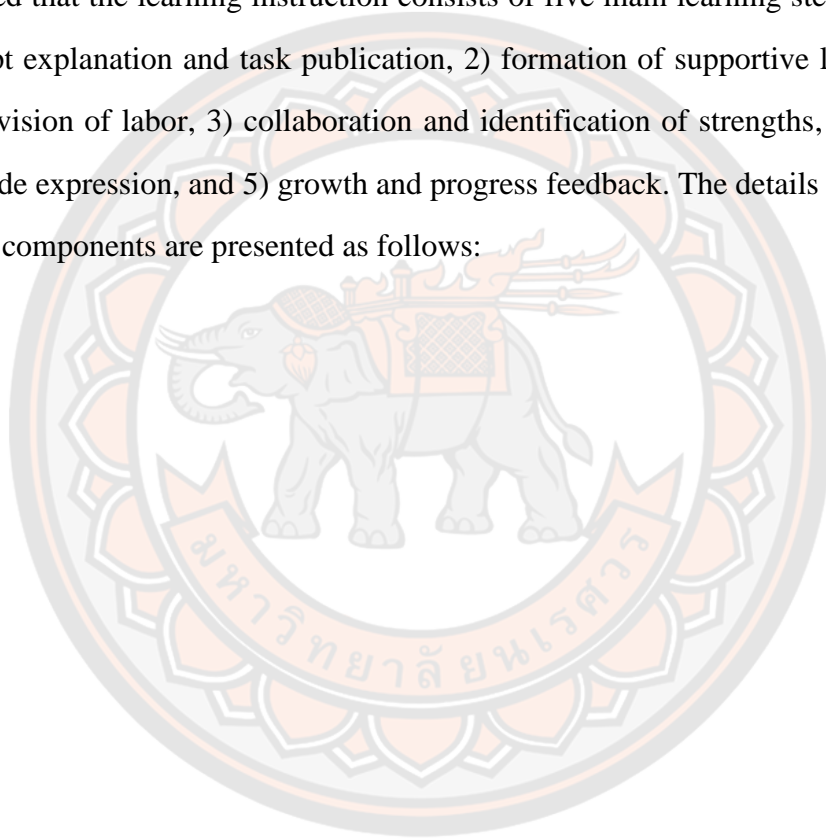
Issued studied	Findings and Evidence
Positive Psychology Learning Activities	<p data-bbox="596 439 1390 533">Expert 1: “The instructor should focus on students' strengths.”</p> <p data-bbox="596 562 1390 656">Expert 2: “Students should participate in all tasks for each activity from start to finish and interact positively.”</p> <p data-bbox="596 689 1390 1032">A study of the positive psychology learning activities that can be used to enhance students' self-emotional regulation ability for university students in China revealed that activities such as discussion, mutual support, positive evaluation, and positive feedback based on real-life situations can enhance students' self-emotional regulation ability.</p>
Collaborative Learning Activities	<p data-bbox="596 1070 1390 1413">A study of the collaborative learning activities that can be used to enhance students' self-emotional regulation ability for university students in China revealed that activities such as group discussions, jigsaw activities, and question-and-answer exercises, and Think-Pair-Share with reflection can be used to enhance students' self-emotional regulation ability.</p>

The findings of developing and assessing the quality of an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

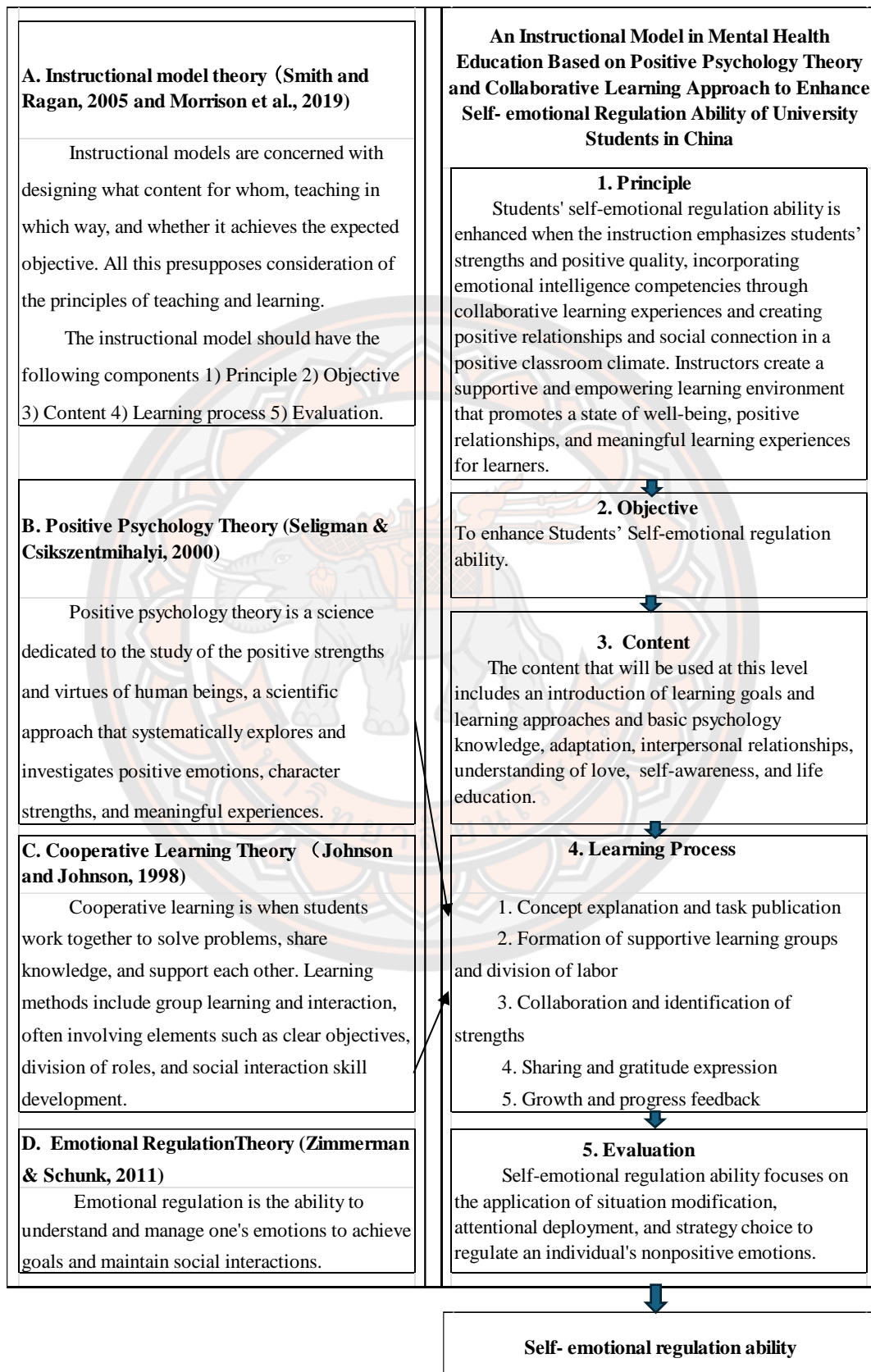
The findings of developing and assessing the quality of an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China are presented as follows:

1. The findings of developing an instructional model

The findings retrieved from the instructional model theories were researched, analyzed, and combined. The findings were used to develop an instructional model. The findings of an instructional model development revealed that the instructional model developed consisted of the following components: 1) principle, 2) objective, 3) content, 4) learning process, and 5) evaluation. The findings also revealed that the learning instruction consists of five main learning steps including 1) concept explanation and task publication, 2) formation of supportive learning groups and division of labor, 3) collaboration and identification of strengths, 4) sharing and gratitude expression, and 5) growth and progress feedback. The details of instructional model components are presented as follows:



Instructional Model to Enhance Self-Emotional Regulation Ability



Rational of the Model

Emotions play a pivotal role in shaping our perception of the world and how we interact within it. Individuals with strong self-emotional regulation ability showed greater activity in brain regions associated with positive emotional regulation. Ong et al. (2006) found that individuals with strong self-emotional regulation ability are more resilient in the face of stress and adversity. They are better able to cope with negative events and recover more quickly from them. According to Heller et al. (1995), individuals with poor self-emotional regulation ability are more likely to experience symptoms of anxiety and depression, as well as other mental health problems. The findings from these studies underscore the critical role that the ability to self-regulate their emotions plays in overall well-being and mental health, suggesting that its development can empower individuals to better manage stress, negative emotions, and adversity, ultimately leading to improved mental health and life satisfaction. It is important to everyone.

For students, the ability to regulate emotional responses is of paramount importance as they navigate the multifaceted challenges of academic and social environments. Students who score high on measures of emotional regulation have better academic achievement and are more engaged in their learning than those with lower scores (Davis et al., 2008). Building upon the framework of emotional intelligence (EI) proposed by Salovey and Sluyter (1997) and Brackett et al. (2006) investigated how the ability to regulate emotions impacts upon social behavior, highlighting that emotional regulation is positively correlated with social competence in children and adolescents (Simpson et al., 2007). This ability allows students to effectively manage interpersonal conflicts and foster positive relationships with peers. According to Okado & Bierman (2015), emotional regulation ability has been linked to a reduction in externalizing behavior problems among students, where those struggling with emotional regulation are more prone to disruptive and aggressive behavior, whereas those proficient in emotional regulation can better manage their conduct and avoid negative outcomes. As

highlighted by Ciarrochi et al. (2020), emotional regulation ability also positively correlates with resilience in adolescents, equipping students with the tools needed to cope with stress, overcome adversity, and bounce back from setbacks. In summary, self-emotional regulation ability is a vital skill for students, impacting their academic success, social interactions, and overall well-being.

Furthermore, Han's (2023) research found that university students exhibited a lower average score in effectively regulating negative emotions and heightened demand for psychological services related to emotional regulation, such as how to regulate negative emotions brought on by interpersonal conflicts, academic stress, and employment stress, with 43.15% seeking such services. These students displayed an increased propensity for conflicts, even physical altercations, over trivial matters, highlighting their inadequate self-emotional regulation ability. Difficulties in emotional regulation are also an important cause of academic procrastination among university students (Mohammadi Bytamar, J. et al., 2020).

The primary root cause of this deficiency can be attributed to several factors, with the outdated instructional models prevalent in universities emerging as a prominent issue. Traditional instructional models, as discussed by Pei (2019) and Pi (2021), predominantly involve one-way communication, and minimal instructor-student interaction, inhibiting instructors from addressing individual students' emotional needs. Consequently, it has become increasingly challenging for Chinese university students to enhance their self-emotional regulation ability through these conventional instructional models.

Recognizing the imperative need for improvement, the researcher seeks to develop a novel instructional model grounded in positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability in her university. The incorporation of positive psychology theory into the collaborative learning approach creates a supportive and motivating learning environment, promoting student engagement and growth (Seligman & Csikszentmihalyi, 2000; Dweck, 2006).

When educators integrate positive psychology theory and facilitate collaborative learning approach, they create a classroom culture that encourages learning, resilience, and personal development (Seligman & Csikszentmihalyi, 2000, Johnson et al.

, 2014). Johnson and Johnson's (1994) cooperative learning theory emphasize the importance of organizing cooperative learning to make it more meaningful and effective. By integrating positive psychology theory and collaborative learning approach, universities hold the potential to significantly benefit their students by enhancing their self-emotional regulation ability.

1.1 Principle

An instructional model based on positive psychology theory and collaborative learning approach to enhance the self-emotional regulation ability for university students in China was developed by studying students' self-emotional regulation problems, learning from experts about the positive psychology theory and collaborative learning principles and important features, role of the learners and instructor, and positive psychology and collaborative learning activities, and analyzing the positive psychology theory and collaborative learning theory. These findings were used as the basic principle to enhance university students' self-emotional regulation ability. These principles are as follows:

Positive psychology theory: Positive psychology focuses on enhancing human strengths and well-being rather than solely addressing weaknesses and pathologies. When applied to classroom teaching, positive psychology emphasizes a safe and positive classroom atmosphere. The instructor sets positive goals and motivates students to participate in classroom activities. Students establish positive interpersonal relationships with their instructors and peers. In the process of learning together, students discover the strengths of others, give positive comments, and express gratitude on time. After students complete their studies, the instructor provides progress feedback that is mainly based on encouragement and praise.

Collaborative learning approach: Students can enhance self-emotional regulation ability when they work together to solve problems by reflecting on their past experiences in self-emotional regulation, actively communicating, discussing, and sharing ideas with peers, instructors, and other experts under the guidance and motivation of the instructor to develop empathy and resilience.

Students' emotional regulation ability is enhanced when the instruction emphasizes students' strengths and positive quality, cultivating a positive mindset that fosters optimism, gratitude, efficacy, and self-compassion, incorporating emotional intelligence competencies such as self-awareness and self-regulation practices through collaborative learning experiences and creating positive relationships and social connection in a positive classroom climate with the instructor modeling positive behaviors. By integrating the principle of positive psychology theory and collaborative learning approach, instructors create a supportive and empowering learning environment that promotes a state of well-being, positive relationships, and meaningful learning experiences for learners.

1.2 Objective

The main objective of developing this instructional model is to enhance the self-emotional regulation ability for university students in China.

1.3 Content

1.3.1 Introduction

- Introduction of learning goals and learning approaches and basic psychology knowledge

- Psychological counseling for university students

1.3.2 Adaptation

- Adaptation to university life

- Adaptation to academic study and teaching methods

1.3.3 Interpersonal Relationships

- Interpersonal interaction theory

- Socialize with roommates/strangers

1.3.4 Understanding of Love

- University students' expression of friendships and love
- Psychology of university students' social and sexual interactions

1.3.5 Self-awareness

- Analyze your personality traits and understand common self-awareness

biases

- Discover personal strengths and build self-confidence

1.3.6 Life Education

- Put life and death in perspective, cherish life
- Cope with life's unexpected misfortunes, stress and frustration

1.4 Learning Process and How to Learn

1.4.1 Learning process

The following combines the principles of positive psychology theory and collaborative learning approach to design the learning process and the implementation of ideas to enhance university students' self-emotional regulation ability:

Step 1: Concept explanation and task publication: The instructor provides a thorough introduction to topics related to mental health education and important theories of self-emotional regulation. This serves to enhance students' understanding of the learning task. Additionally, the instructor inspires students to reflect on their previous experiences of self-emotional regulation, such as how they regulate emotions during situations like breakups or dealing with academic setbacks. This information, coupled with the student's existing knowledge, is used to tailor the task. Publics a specific task for the day while the instructor sets positive goals and encourages students to think positively. This can be combined with real-life examples or edited videos for students' better understanding.

Step 2: Formation of supportive learning groups and division of labor: Students are grouped and establish group norms for emotional safety. Each group is assigned specific roles for positive psychology theory and collaborative learning sessions, including a leader, recorder, sharer, observer, and reporter. While group members remain constant throughout the course, the allocation of roles varies for each session. It is important to ensure heterogeneous grouping, pairing weaker students with stronger ones to facilitate mutual learning and growth. The groups should be formed with consideration of a balanced mix of abilities and backgrounds.

Step 3: Collaboration and identification of strengths: This stage reflects the division of labor and active collaboration within the group to solve problems together and regulate self-emotions. The leader guides group members to participate in discussions based on the topic, provides examples, clarifies task objectives, and facilitates peer support and feedback. The sharer primarily focuses on sharing positive strategies and processes for regulating non-positive emotions. The recorder is responsible for documenting the group's discussions, while the observer pays close attention to the overall performance of group members and identifies the strengths of the peers. Upon completing the task, the observer provides positive feedback regarding the group's collaborative efforts. During this stage, students can practice self-emotional regulation strategies actively and create a positive classroom environment through collaboration and participation.

Step 4: Sharing and gratitude expression: This step is a reflection on the group's growth and progress and summary of experiences, reinforcing the positive collaborative learning process. The designated reporter listens attentively throughout the group's discussions, and once the sharer has completed their presentation and the observer has provided positive feedback, the reporter compiles the group's learnings and presents them to the class. They will express gratitude to the instructor and peers at the end of their sharing, which can reflect positive relationships and social support. This step is essential for the comprehensive application of positive psychology theory,

consolidating learning outcomes and promoting positive collaborative learning experiences, and allowing a diverse group of students to practice summarizing self-emotional regulation strategies.

Step 5: Growth and progress feedback: In this stage, the instructor refrains from interrupting students while they provide their group summaries. After students have completed their summaries, the instructor offers growth and progress feedback based on the group's presentation and the utilization of emotional regulation steps. The feedback is primarily aimed at encouragement and appreciation. Furthermore, the instructor reinforces the key aspects of self-emotional regulation that students need to focus on, ensuring that they become adept at regulating their emotions across various situations. Finally, the instructor summarizes the day's learning and reviews key knowledge.

This learning process seamlessly integrates positive psychology theory and the collaborative learning approach, creating a supportive and motivating environment that fosters not only subject knowledge but also self-emotional regulation ability, self-awareness, and effective collaboration. It promotes a holistic approach to education, equipping students with valuable tools to navigate both academic challenges and life's emotional complexities.

1.4.2 Instructional Materials

The instructional materials used to enhance students' self-emotional regulation ability included:

1.4.2.1 Instructional model manual

The instructional model manual gives directions on how the instructional model is implemented. It consists of the introduction, directions and lesson plans. The instructional model manual is shown in Appendix 3

1.4.2.2 The Situational Judgment Test of Self-Emotional Regulation Ability (pre-test and post-test)

1.4.2.3 Lesson plans (12 sets)

1.4.2.4 Handouts based on the content taught.

1.4.2.5 Charts related to content taught

1.4.2.6 Power points related to content taught

1.4.2.7 Videos related to various tasks and multimedia equipment

1.5 Evaluation

1.5.1 Evaluation of learning is divided into the following sections:

1.5.1.1 Evaluation of students' self-emotional regulation ability

1.5.1.2 Evaluation of the learning instruction

1.5.2 Evaluation Tools

The instructional model will utilize the following assessment tools:

1.5.2.1 The Situational Judgment Multiple Choice Test of Self-Emotional Regulation Ability (pre-test and post-test)

1.5.2.2 Classroom observation records to assess students' collaborative activities and self-emotional regulation ability

1.5.2.3 Students' satisfaction questionnaire to evaluate the learning instruction

1.5.3 Evaluation Criterion

The evaluation criterion will be divided into 4 parts as follows:

1.5.3.1 Conducting a comparison of students' self-emotional regulation between pre-test and post-test results utilizing a dependent t-test

1.5.3.2 Recording classroom activities observation using content analysis

1.5.3.3 Satisfaction questionnaire using a 5-level Likert scale

4.50 - 5.00: shows the highest level of satisfaction

3.50 - 4.49: shows a high level of satisfaction

2.50 - 3.49: shows medium level of satisfaction

1.50 - 2.49: shows a low level of satisfaction

1.0 - 1.49: shows the lowest level of satisfaction

2. Findings of Appropriateness of Instructional Model and Instructional Model Manual

The developed instructional model and instructional model manual were carefully checked by academic advisors and evaluated by the experts. The findings of the evaluation were divided as follows:

2.1 The Findings of Instructional Model Evaluation

All the components of the instructional model were checked and evaluated by the experts and the findings were as follows:

Table 13 Findings of Instructional Model Evaluation

Components of Instructional Model	\bar{X}	S.D.	Level of Appropriateness
Principle			
All theoretical bases related to positive psychology and collaborative learning approach are clear and rationale.	4.80	0.45	Highest
All positive psychology and collaborative theoretical bases support the development of self-emotional regulation ability.	4.60	0.89	Highest
All positive psychology and collaborative theoretical bases clearly explain what is expected to be achieved.	4.60	0.89	Highest
Total	4.67	0.74	Highest
Learning objective			
The learning objectives are related to the principles.	4.60	0.89	Highest

Components of Instructional Model	\bar{X}	S.D.	Level of Appropriateness
The learning objective is clear and reasonable.	4.60	0.55	Highest
This objective addresses the difficulties of Chinese students.	5.00	0.00	Highest
Learning objectives are realistic.	4.80	0.45	Highest
Total	4.75	0.63	Highest
Content			
The learning content is related to the principles.	4.60	0.89	Highest
The learning content is related to the objectives of the course.	4.40	0.55	High
The learning content is relevant to the difficulties of Chinese university students.	4.80	0.45	Highest
Learning content can be used to enhance students' self-emotional regulation ability.	4.00	0.00	High
The learning content is not too difficult for the students at this level.	4.80	0.45	Highest
Total	4.52	0.59	Highest
Learning Process			
The learning process is related to the principles.	4.60	0.89	Highest
The learning process is in line with the objectives.	4.60	0.89	Highest
The learning process facilitates the attainment of the learning objectives.	4.00	0.71	High

Components of Instructional Model	\bar{X}	S.D.	Level of Appropriateness
The positive psychology and collaborative learning processes are clear.	4.40	0.89	High
Positive psychology and collaborative learning processes foster to enhance self-emotional regulation ability.	4.20	0.84	High
The learning process encourages the learner's participation.	4.00	0.71	High
Total	4.30	0.82	High
Evaluation			
The evaluation method is clear and measurable.	4.60	0.89	Highest
The evaluation can evaluate self-emotional regulation ability.	4.80	0.45	Highest
Total	4.70	0.67	Highest
Total means score of instructional model evaluation	4.59	0.69	Highest

Table 13 shows the level of appropriateness of the developed instructional model. As can be seen from the table, all components of the instructional model generally achieved the highest level of appropriateness (\bar{X} =4.59, S.D.= 0.69). In terms of the components, the highest level of appropriateness was found for principle (\bar{X} =4.67, S.D.= 0.74), objective (\bar{X} =4.75, S.D.= 0.63), content (\bar{X} =4.52, S.D.= 0.59) and evaluation (\bar{X} =4.70, S.D.= 0.67). Learning processes (\bar{X} =4.30, S.D.= 0.82) had a high level of appropriateness.

Based on section two of the evaluation, experts were required to provide comments and suggestions on the instructional model based on positive psychology

theory and collaborative learning approach to enhance students' self-emotional regulation ability, and most of the experts agreed that all components of the instructional model were clearly explained, interrelated and easy to understand. However, the experts recommended refining the learning content and modifying the learning process to better achieve the learning objectives.

2.2 The Findings of Instructional Model Manual Evaluation

The instructional model manual was critically checked and evaluated by experts. The findings of the evaluation are represented in the table below as follows:

Table 14 Findings of Instructional Model Manual Evaluation

Components of Instructional Model Manual	\bar{X}	S.D.	Level of Appropriateness
The introduction of the instructional model manual is clear.	4.40	0.89	High
The instructional model directions are well comprehended.	4.60	0.89	Highest
The objective of the instructional model manual is clear and relevant to the difficulties of Chinese university students.	4.60	0.89	Highest
The introduction of using an instructional model is suitable.	4.60	0.55	Highest
The requirement of a learning environment is conducive to the development of the instructional model	4.60	0.89	Highest
The instructor's role is articulated and easy to implement.	4.60	0.55	Highest

Components of Instructional Model Manual	\bar{X}	S.D.	Level of Appropriateness
The student's role is articulated and easy to implement.	4.40	0.89	High
The learning procedure is well organized and connected.	4.40	0.89	High
The learning content is appropriate for students at this level.	4.60	0.55	Highest
The learning materials are related to the learning content.	4.40	0.89	High
The timeframe is applicable for both the lesson and practical activities.	4.40	0.89	High
Total	4.51	0.80	High
Lesson Plan			
Specification of components of the lesson plans			
All the components of the lesson plans are completely specified.	4.80	0.45	Highest
All the components of the lesson plans are appropriately arranged.	4.40	0.89	High
Conformity of the components of the lesson plans.	4.40	0.89	High
Total	4.53	0.74	Highest
Appropriateness and effectiveness of the components of the lesson plans			
Topic: The topics are appropriate.	4.80	0.45	Highest
Duration: The time allocated for teaching and learning is appropriate.	4.40	0.89	High

Components of Instructional Model Manual	\bar{X}	S.D.	Level of Appropriateness
Objectives: The objectives of the lesson plans are clear and related to the objectives of the instructional model. The objectives are feasible.	4.80	0.45	Highest
Instructional strategies: The instructional strategies are related to the objectives of the lessons.	4.20	0.84	High
Learning content: The selected content is linked to the objectives of the course and the objectives of the instructional model.	4.40	0.89	High
Total	4.52	0.70	Highest
Learning Instruction/Activities			
All activities identified in each step are concise and easy to implement.	4.40	0.89	High
The procedures and activities are properly organized for the effective implementation of the lesson.	4.20	0.84	High
The arrangement for each step of instruction is consistent with the development of self-emotional regulation ability.	4.20	0.84	High
Total	4.27	0.86	High
Learning materials			
The learning materials are easy and convenient to prepare.	4.60	0.89	Highest

Components of Instructional Model Manual	\bar{X}	S.D.	Level of Appropriateness
The learning materials are relevant to the instructional objectives.	4.60	0.89	Highest
Learning materials are related to the learning content.	4.60	0.55	Highest
Total	4.60	0.78	Highest
Learning Assessment			
The methods of assessment are related to the objectives of the lessons.	4.60	0.89	Highest
The instruments of assessment are concise and are used easily.	4.60	0.89	Highest
Total	4.60	0.89	Highest
Evaluation			
The instruments of evaluation are concise and are used easily.	4.60	0.89	Highest
The evaluation is related to the objectives of the instructional model.	4.60	0.89	Highest
The evaluation model is clear and relevant to the learning content.	4.60	0.89	Highest
Total	4.60	0.89	Highest
Lesson plan total	4.52	0.81	Highest
Instructional model manual total	4.52	0.81	Highest

Table 14 above revealed the findings and appropriateness level of the components of the instructional model manual. The findings revealed that the instructional model manual was at the highest level of appropriateness (\bar{X} = 4.52,

S.D.= 0.81). Considering each component of the instructional model manual, the findings revealed that the instructional model directions ($\bar{X}= 4.60$, S.D.=0.89), the objective of the instructional model manual ($\bar{X}= 4.60$, S.D.=0.89), the introduction of using an instructional model ($\bar{X}= 4.60$, S.D.=0.55), learning environment ($\bar{X}= 4.60$, S.D.=0.89), the instructor's role ($\bar{X}= 4.60$, S.D.=0.55), learning content ($\bar{X}= 4.60$, S.D.=0.55), and the lesson plans ($\bar{X} = 4.52$, S.D.=0.81) were all at the highest level of appropriateness. The introduction to the instructional model manual ($\bar{X}= 4.40$, S.D.=0.89), the student's role ($\bar{X}= 4.40$, S.D.=0.89), the learning procedure ($\bar{X}= 4.40$, S.D.=0.89), the learning materials ($\bar{X}= 4.40$, S.D.=0.89), and the timeframe ($\bar{X}= 4.40$, S.D.=0.89) were all at a high level of appropriateness. The findings show that all the components of the instructional model manual were highly appropriate and applicable.

In the second part of the evaluation, experts were required to provide comments and suggestions on the instructional model manual based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability, and most of the experts agreed that the introduction to the instructional model manual, the instructional model directions, the objective of the instructional model manual, the introduction of using an instructional model, learning environment, the instructor's role, the student's role, learning content, timeframe, and the lesson plans were clearly explained, interrelated and easy to understand. The experts suggested revising the content of the learning procedure and learning materials so that more people could use the manual as a reference. The researcher revised the content by simplifying sentence structure, reducing repetitive expressions, and making the steps for using the manual more explicit so that readers can understand and use it more clearly and effectively.

2.3 Findings of the Instructional Model Pilot Study

The findings from the pilot study of the instructional model based on positive psychology theory and collaborative learning approach revealed that, after modifications and improvements, all lesson plans, content, learning instruction,

learning process, learning activities, instructional materials, and timeframe were highly appropriate for implementation. All students showed a strong interest in participating in the activities and actively engaged in completing group tasks. During the pilot study, several problems were encountered, such as students' difficulty in understanding tasks, discomfort with speaking within the group, and some students expressing criticism or dissatisfaction when providing feedback to peers. These problems were addressed before proper implementation. The researcher encouraged students to actively participate in group activities and speak up. Gradually, students developed confidence and learned methods of self-emotional regulation through mutual learning and communication.

2.4 Findings of Effectiveness of the Instructional Model

Table 15 The Findings of the Effectiveness of an Instructional Model Based on Positive Psychology Theory and Collaborative Learning Approach to Enhance Students' Self-Emotional Regulation

Assessment Elements	n	Total score	Total pretest score	Total post-test score	Effective Index (E.I)	Interpretation
Situation modification	35	10	110	231	0.50	Effective
Attentional deployment	35	10	122	238	0.51	Effective
Strategy choice	35	10	167	288	0.66	Effective
Overall	35	30	399	757	0.55	Effective

From Table 15, the findings of the effectiveness of an instructional model based on positive psychology theory and collaborative learning approach to enhance

self-emotional regulation ability for Chinese university students (considering three aspects: situation modification, attentional deployment, and strategy choice) range from 0.50 to 0.66. The instructional model had an overall effectiveness index of 0.55, which is higher than the appropriate value of 0.50. Therefore, this indicates that the instructional model was effective.

The findings of studying the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach.

The developed instructional model based on positive psychology theory and collaborative learning approach to enhance university students' self-emotional regulation ability was implemented with 40 freshmen from Guangxi University of Science and Technology in the first semester of the 2024 academic year.

1. The findings of studying self-emotional regulation ability before and after studying with the developed instructional model.

Table 16 The Findings of a Study of Self-emotional Regulation Ability before and after Studying with the Developed Instructional Model.

Self-emotional regulation ability	n	score	Pre-test			Post-test		
			\bar{X}	S. D.	Level of ability	\bar{X}	S.D.	Level of ability
Situation modification	40	10	3.73	1.65	Fair	6.90	1.60	Medium
Attentional deployment	40	10	3.38	1.43	Poor	6.78	1.53	Medium
Strategy choice	40	10	4.13	1.95	Fair	8.08	1.38	Good
Overall	40	30	11.23	1.68	Fair	21.75	1.50	Good

From Table 16 above, the students' self-emotional regulation ability ($\bar{X}=11.23$, S.D.=1.68) was not good before studying the instructional model based on positive psychology theory and collaborative learning approach. This includes situation modification ($\bar{X}=3.73$, S.D.=1.65), attentional deployment ($\bar{X}=3.38$, S.D.=1.43), and strategy choice ($\bar{X}=4.13$, S.D.=1.95), which indicates that students are not good at modifying the situation to a state conducive to emotional regulation when faced with personal problems such as negative emotions. They are not able to effectively deploy their attention and are not good at choosing positive strategies to regulate negative emotions. After learning the instructional model based on positive psychology theory and collaborative learning approach, students excel in self-emotional regulation ($\bar{X}=21.75$, S.D.=1.50). This includes situation modification ($\bar{X}=6.90$, S.D.=1.60), attentional deployment ($\bar{X}=6.78$, S.D.=1.53), and strategy choice ($\bar{X}=8.08$, S.D.=1.38), which indicates that the students learn to modify the situation to a state that is conducive to emotional regulation. They can effectively deploy their attention and will choose positive strategies to regulate negative emotions.

Findings of classroom observation during instructional model implementation

The findings of classroom observation during the instructional model implementation are presented as follows:

Table 17 Observation Elements of Classroom Activities

Observation Elements of Classroom Activities		
Student group division of labor and collaborative interaction	Leader	<ul style="list-style-type: none"> - Organize group members, assign tasks, and ensure everyone participates in activities. - Guide group discussions and ensure they proceed orderly.
	Recorder	<ul style="list-style-type: none"> - Record the main content and outcomes of group discussions. - Ensure accurate and comprehensive records for group reporting.
	Sharer	<ul style="list-style-type: none"> - Observe the interaction among group members to identify individual strengths. - Provide positive feedback after group discussions to encourage members.
	Observer	<ul style="list-style-type: none"> - Observe the interaction among group members, noting any issues and highlights. - Provide feedback after group discussions to help improve the group.
	Reporter	<ul style="list-style-type: none"> - Represent the group in presenting discussion results to the class. - Clearly and concisely express the group's views and conclusions.
Interaction between students and instructor	<ul style="list-style-type: none"> - Students and the instructor interact actively throughout the learning process. - The instructor walks around the classroom, helping students understand tasks, demonstrating, and encouraging them to complete tasks. 	

	<ul style="list-style-type: none"> - Students seek help and clarification from the instructor when they do not understand, actively participating in the learning process.
Classroom atmosphere	<ul style="list-style-type: none"> - The classroom atmosphere is friendly and interactive, with students freely expressing themselves and the instructor respecting their opinions. - Students actively participate in the learning process, and the classroom is full of laughter and positive relationships.
Use of instructional materials	<ul style="list-style-type: none"> - Students used instructional materials when completing emotion regulation exercises. - Students focused on using the materials to complete the exercises and shared their personal experiences. <p>Student 1: “We can follow the method in the materials to perform emotion regulation exercises.”</p> <p>Student 2: “I’ve used this method before, and it worked well.”</p>
Growth and progress feedback evaluation	<ul style="list-style-type: none"> - The instructor, after listening to the students' presentations, praised them for their efforts and positive sharing. - The instructor guided the students to make further improvements and gave constructive feedback. - The instructor emphasized the specific strengths of the students and motivated them to build on their efforts.

2 The findings of comparing self-emotional regulation ability before and after studying with the developed instructional model.

A pre-and post-test was administered before and after instructional model implementation to study the findings of students’ self-emotional regulation ability after learning with the instructional model based on positive psychology theory and collaborative learning approach and the following results were revealed.

Table 18 The Comparison of Self-Emotional Regulation Ability before and after Studying with the Developed Instructional Model

Attribute	n	Full score	Pre-test		Post-test		t	p
			\bar{X}	S. D.	\bar{X}	S. D.		
Situation Modification	40	10	3.73	1.65	6.90	1.60	26.87	**0.00
Attentional Deployment	40	10	3.38	1.43	6.78	1.53	20.82	**0.00
Strategy Choice	40	10	4.13	1.95	8.08	1.38	24.70	**0.00
Overall	40	30	11.23	1.68	21.75	1.50	40.77	**0.00

****p < 0.01**

From Table 18 above, the findings revealed that students' self-emotional regulation ability after learning with an instructional model based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability was significantly higher (\bar{X} = 21.75, S.D. = 1.50) than before (\bar{X} = 11.23, S.D. = 1.68) at the 0.01 level.

The findings of exploring students' satisfaction with an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China

The survey of students' satisfaction with the instructional model based on positive psychology theory and collaborative learning approach to enhance the self-emotional regulation ability for Chinese university students was a questionnaire survey, and the results showed the student's satisfaction with the implementation of the instructional model.

1. Findings of exploring students' satisfaction with an instructional model implementation

The findings of studying students' satisfaction with an instructional model are presented as follows:

Table 19 Findings of Exploring Students' Satisfaction with an Instructional Model Implementation

Components of students' satisfaction	\bar{X}	S. D.	Level of satisfaction
Learning process			
The learning process is clear, fun, and easy to understand.	4.68	0.73	Highest
The learning process allows me to learn in the classroom with my group members and the instructor.	4.75	0.71	Highest
The learning process allows me to participate actively in the classroom.	4.68	0.73	Highest
Total	4.68	0.72	Highest
Learning content			
The learning content matches my needs and is interesting.	4.78	0.42	Highest
I can apply what I've learned from the content in real-life situations.	4.68	0.47	Highest
Components of students' satisfaction	\bar{X}	S. D.	Level of satisfaction

The learning content is presented clearly and understandably.	4.73	0.45	Highest
Total	4.73	0.45	Highest
Learning activities			
The learning activities were innovative and fun, and I enjoyed having them in my classroom.	4.8	0.52	Highest
Learning activities are at the appropriate level of difficulty. They are within the student's reach.	4.75	0.49	Highest
Learning activities involved each student in practicing, collaborating, and actively supporting each other.	4.83	0.45	Highest
Learning activities allowed each student to receive positive feedback from group members and the instructor.	4.8	0.46	Highest
Total	4.79	0.48	Highest
Learning atmosphere			
A positive classroom atmosphere enabled us to carry out our learning activities successfully.	4.75	0.54	Highest
The positive and safe learning atmosphere allows us to speak freely in class.	4.9	0.30	Highest
Total	4.83	0.42	Highest
Instructional materials			
The instructional materials were easy to use and enhanced our self-emotional regulation ability.	4.83	0.38	Highest
Components of students' satisfaction	\bar{X}	S. D.	Level of satisfaction

Instructional materials are combined with practical applications to help us translate our theoretical knowledge into practical skills.	4.83	0.38	Highest
Total	4.83	0.38	Highest
The role of the instructor			
The instructor provided us with guidance and assistance for the successful implementation of our learning activities.	4.9	0.38	Highest
The instructor can create a positive and inclusive learning atmosphere in the classroom.	4.95	0.22	Highest
Total	4.93	0.30	Highest
Evaluation			
Different tasks used to evaluate self-emotional regulation ability were effective.	4.68	0.53	Highest
The evaluation process provided us with the opportunity to practice regulating our emotions.	4.75	0.49	Highest
Total	4.71	0.51	Highest
Self-emotional regulation ability development			
My self-emotional regulation ability has been enhanced through learning with this instructional model.	4.78	0.42	Highest
I learned new positive strategies for self-emotional regulation while working with my group members.	4.75	0.49	Highest
Total	4.76	0.46	Highest
Total of satisfaction	4.78	0.47	Highest

From Table 19 above, students' satisfaction with the instructional model was at the highest level ($\bar{X}=4.78$, S.D.=0.47). The results revealed that students' satisfaction towards the learning process ($\bar{X}=4.68$, S.D.=0.72), learning content ($\bar{X}=4.73$,

S.D.=0.45), learning activities (\bar{X} = 4.79, S.D.=0.48), learning atmosphere (\bar{X} = 4.83, S.D.=0.42), instructional materials (\bar{X} = 4.83, S.D.=0.38), the instructor's role (\bar{X} = 4.93, S.D.=0.30), evaluation (\bar{X} = 4.71, S.D.=0.51) and self-emotional regulation ability development (\bar{X} = 4.76, S.D.=0.46) were at the highest level of satisfaction.



CHAPTER V

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

An instructional model based on positive psychology theory and collaborative learning approach was developed to enhance the self-emotional regulation ability for Chinese university students, according to the steps of research and development with the following objectives:

1. To study students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China.

2. To develop and assess the quality of an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

3. To study the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach.

- 3.1 To study self-emotional regulation ability before and after studying with the developed instructional model.

- 3.2 To compare self-emotional regulation ability before and after studying with the developed instructional model.

4. To explore students' satisfaction with an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China.

The findings were based on positive psychology theory and collaborative learning approach. The results of the study were used to develop an instructional model.

This chapter summarizes the results and presents the findings in terms of discussion, conclusions, policy implications for educators and recommendations for further research.

Research Findings

This study investigated an instructional model developed based on positive psychology theory and collaborative learning approach to enhance university students' self-emotional regulation ability, and the findings are as follows:

1. The findings of studying students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China.

1.1 The findings of studying students' self-emotional regulation problems revealed that students face both personal and non-personal problems.

In terms of personal problems, the problems faced by students included the fact that when they experienced negative emotions, they tended to stay in the situation that generated them, were not able to deploy their attention effectively, and were not good at choosing positive strategies to regulate negative emotions.

The findings of studying the non-personal self-emotional regulation problems faced by students are as follows:

The findings revealed that the problems faced by students include instructor-centered teaching methods. Instructors tend to use lecture methods to teach theoretical knowledge, and students do not have the opportunity to practice self-emotional regulation in class. When students make mistakes in answering questions in class, some instructors ridicule the students and therefore students are reluctant to speak in class. Some students reported that the instructors were very serious in class, or the theoretical knowledge presented was difficult to understand, and students did not grasp the knowledge in class and did not know how to apply it after class.

The findings on general problems included the prevalence of students being unsociable, introverted, and easily out of control.

1.2 The findings of studying how positive psychology theory and collaborative learning approach can be implemented to enhance students' self-emotional regulation ability.

The findings of studying positive psychology theory and collaborative learning principles and important features that can be implemented to enhance students' self-emotional regulation ability from experts revealed that positive psychology promotes a positive mindset as vital and that it should involve creating a positive and safe learning environment, fostering positive interpersonal relationships and connections between students and their instructors and peers, providing strengths-based feedback and appreciation, employing strengths-based approaches that help encourage students to identify and use positive self-evaluations, and emphasizing personal growth and development.

Collaborative learning involves active student participation and interaction. The steps of collaborative learning include student task assignment and explanation, grouping, collaborative task completion process, practice reporting after task completion, task assessment, and positive feedback. The findings of the study showed that the principle of collaborative learning is that students actively communicate, discuss, and share ideas with their peers, instructors, and other experts under the guidance and encouragement of the instructor. They received peer support in groups, collaborated to solve problems, developed positive thinking and self-reflection, and thus enhanced self-emotional regulation.

2. The findings of an instructional model development based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability

The findings of an instructional model development based on positive psychology theory and collaborative learning approach to enhance students'

self-emotional regulation ability revealed as follows:

The findings of positive psychology theory and collaborative learning approach formed the foundation for the development of the instructional model for this study.

Positive psychology theory: Positive psychology focuses on enhancing human strengths and well-being rather than solely addressing weaknesses and pathologies. When applied to classroom teaching, positive psychology emphasizes a safe and positive classroom atmosphere. The instructor sets positive goals and motivates students to participate in classroom activities. Students establish positive interpersonal relationships with their instructors and peers. In the process of learning together, students discover the strengths of others, give positive comments, and express gratitude on time. After students complete their studies, the instructor provides progress feedback that is mainly based on encouragement and praise.

Collaborative learning approach: Students can enhance self-emotional regulation ability when they work together to solve problems by reflecting on their past experiences in self-emotional regulation, actively communicating, discussing, and sharing ideas with peers, instructors, and other experts under the guidance and motivation of the instructor to develop empathy and resilience.

Students' emotional regulation ability is enhanced when the instruction emphasizes students' strengths and positive quality, cultivating a positive mindset that fosters optimism, gratitude, efficacy, and self-compassion, incorporating emotional intelligence competencies such as self-awareness and self-regulation practices through collaborative learning experiences and creating positive relationships and social connection in a positive classroom climate with the instructor modeling positive behaviors. By integrating the principle of positive psychology theory and collaborative learning approach, instructors create a supportive and empowering learning environment that promotes a state of well-being, positive relationships, and meaningful learning experiences for learners.

2.1 The findings of an instructional model development revealed that the developed instructional model consisted of 5 components including 1) Principle, 2) Objective, 3) Content, 4) Learning process, and 5) Evaluation.

The findings of positive psychology theory and collaborative learning theory which laid a foundation for instructional model development were investigated and findings were used for the development of learning instruction to enhance students' self-emotional regulation ability. The learning instruction consisted of 5 learning steps as follows:

Step 1: Concept explanation and task publication: The instructor provides a thorough introduction to topics related to mental health education and important theories of self-emotional regulation. This serves to enhance students' understanding of the learning task. Additionally, the instructor inspires students to reflect on their previous experiences of self-emotional regulation, such as how they regulate emotions during situations like breakups or dealing with academic setbacks. This information, coupled with the student's existing knowledge, is used to tailor the task. Publics a specific task for the day while the instructor sets positive goals and encourages students to think positively. This can be combined with real-life examples or edited videos for students' better understanding.

Step 2: Formation of supportive learning groups and division of labor: Students are grouped and establish group norms for emotional safety. Each group is assigned specific roles for positive psychology theory and collaborative learning sessions, including a leader, recorder, sharer, observer, and reporter. While group members remain constant throughout the course, the allocation of roles varies for each session. It is important to ensure heterogeneous grouping, pairing weaker students with stronger ones to facilitate mutual learning and positive growth. The groups should be formed with consideration of a balanced mix of abilities and backgrounds.

Step 3: Collaboration and identification of strengths: This stage reflects the division of labor and active collaboration within the group to solve problems

together and regulate self-emotions. The leader guides group members to participate in discussions based on the topic, provides examples, clarifies task objectives, and facilitates peer support and feedback. The sharer primarily focuses on sharing positive strategies and processes for regulating non-positive emotions. The recorder is responsible for documenting the group's discussions, while the observer pays close attention to the overall performance of group members and identifies the strengths of the peers. Upon completing the task, the observer provides positive feedback regarding the group's collaborative efforts. During this stage, students can practice self-emotional regulation strategies actively and create a positive classroom environment through collaboration and participation.

Step 4: Sharing and gratitude expression: This step is a reflection on the group's growth and progress and summary of experiences, reinforcing the positive collaborative learning process. The designated reporter listens attentively throughout the group's discussions, and once the sharer has completed their presentation and the observer has provided positive feedback, the reporter compiles the group's learnings and presents them to the class. They will express gratitude to the instructor and peers at the end of their sharing, which can reflect positive relationships and social support. This step is essential for the comprehensive application of positive psychology theory, consolidating learning outcomes and promoting positive collaborative learning experiences, and allowing a diverse group of students to practice summarizing self-emotional regulation strategies.

Step 5: Growth and progress feedback: In this stage, the instructor refrains from interrupting students while they provide their group summaries. After students have completed their summaries, the instructor offers growth and progress feedback based on the group's presentation and the utilization of emotional regulation steps. The feedback is primarily aimed at encouragement and appreciation. Furthermore, the instructor reinforces the key aspects of self-emotional regulation that students need to focus on, ensuring that they become adept at regulating their emotions across various

situations. Finally, the instructor summarizes the day's learning and reviews key knowledge.

2.2 The findings of the evaluation of the instructional model showed that the instructional model based on positive psychology theory and collaborative learning approach developed to enhance students' self-emotional regulation ability had the highest level of appropriateness ($\bar{X}=4.59$, S.D.=0.69). In terms of the components, the highest level of appropriateness was found for principle ($\bar{X}=4.67$, S.D.=0.74), objective ($\bar{X}=4.75$, S.D.=0.63), content ($\bar{X}=4.52$, S.D.=0.59) and evaluation ($\bar{X}=4.70$, S.D.=0.67). The learning process ($\bar{X}=4.30$, S.D.=0.82) had a high level of appropriateness.

The results of the instructional model manual evaluation revealed that the instructional model manual was at the highest level of appropriateness ($\bar{X}=4.52$, S.D.=0.81). Considering each component of the instructional model manual, the results revealed that the instructional model directions ($\bar{X}=4.60$, S.D.=0.89), the objective of the instructional model manual ($\bar{X}=4.60$, S.D.=0.89), the introduction of using an instructional model ($\bar{X}=4.60$, S.D.=0.55), learning environment ($\bar{X}=4.60$, S.D.=0.89), the instructor's role ($\bar{X}=4.60$, S.D.=0.55), learning content ($\bar{X}=4.60$, S.D.=0.55), and the lesson plans ($\bar{X}=4.52$, S.D.=0.81) were all at the highest level of appropriateness. The introduction to the instructional model manual ($\bar{X}=4.40$, S.D.=0.89), the student's role ($\bar{X}=4.40$, S.D.=0.89), the learning procedure ($\bar{X}=4.40$, S.D.=0.89), the learning materials ($\bar{X}=4.40$, S.D.=0.89), and the timeframe ($\bar{X}=4.40$, S.D.=0.89) were all at a high level of appropriateness. The results show that all the components of the instructional model manual were highly appropriate and applicable.

The instructional model manual described general information on how to implement the instructional model based on positive psychology theory and collaborative learning approach for self-emotional regulation instruction. The main components of the instructional model manual included the introduction, directions, learning objectives, learning introduction, learning environment, the instructor's role,

the student's role, learning procedures, learning content, learning materials, timeframe, lesson plans, learning assessment, and evaluation criterion. All these components contain detailed information on how the instructor can implement the instructional model to ensure the effective enhancement of students' self-emotional regulation ability. Lesson plans were used for this study with a total of 4 hours per week (2 sessions per week).

2.3 The findings of the pilot study following the learning procedure of the instructional model on the effectiveness of the instructional model revealed that an instructional model based on positive psychology theory and collaborative learning approach to enhance the self-emotional regulation ability for Chinese university students applied the Situational Judgment Test and its validity indexes ranged from 0.50 to 0.66 through the pre-tests and post-tests of students' situation modification, attentional deployment, strategy choice. The overall validity index of the instructional model was 0.55, which is higher than the appropriate value of 0.50.

3. The findings of studying the results of university students' self-emotional regulation ability after the implementation of an instructional model based on positive psychology theory and collaborative learning approach.

3.1 The findings of the classroom observations during the implementation of the instructional model showed that there was good interaction between students and between students and the instructor during the tasks. The atmosphere in the classroom was safe, positive, and friendly. Students expressed their ideas freely and gave positive comments to each other. The instructor also showed encouragement and appreciation for the students. He moved around the classroom to help the weaker students and gave progress feedback.

3.2 The findings of the instructional model implementation revealed that after the implementation of the instructional model, students' self-emotional regulation ability was significantly higher than before the implementation of the model at the 0.01 level. After the implementation of the instructional model, students were able to better

modify the situation, deploy their attention, and choose positive strategies when facing negative emotions. All components of emotional regulation were improved, and emotional regulation ability, in general, was enhanced because they could use what they learned in the classroom to regulate their emotions when negative emotions arose from different situations.

4. The findings of exploring students' satisfaction with an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China

The findings of exploring students' satisfaction with the instructional model learning process revealed that students' satisfaction was at the highest level ($\bar{X}= 4.78$, S.D.=0.47). The results of exploring students' satisfaction levels revealed that the learning process ($\bar{X}= 4.68$, S.D.=0.72), learning content ($\bar{X}= 4.73$, S.D.=0.45), learning activities ($\bar{X}= 4.79$, S.D.=0.48), learning atmosphere ($\bar{X}= 4.83$, S.D.=0.42), instructional materials ($\bar{X}= 4.83$, S.D.=0.38), the instructor's role ($\bar{X}= 4.93$, S.D.=0.30), evaluation ($\bar{X}= 4.71$, S.D.=0.51), and Self-emotional regulation ability development ($\bar{X}= 4.76$, S.D.=0.46) were at the highest level of satisfaction.

Discussion of Research Findings

The objective of this study was to develop an instructional model based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for Chinese university students, and the researcher found the following aspects worth discussing: 1) the findings of studying students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China, 2) the findings of an instructional model development and quality assessment, 3) the findings of studying the results of university students' self-emotional regulation ability after the implementation of an instructional model

and 4) the findings of exploring students' satisfaction with an instructional model implementation. These aspects were discussed as follows:

1. The findings of studying students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China

The findings of studying students' self-emotional regulation problems, and how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China are presented as follows:

1.1 The findings of studying students' self-emotional regulation problems

The findings of students' self-emotional regulation problems revealed that personal problems faced by students included not being adept at modifying the situation after experiencing negative emotions, difficulties in effectively deploying attention, and the emotional regulation strategies chosen were not always positive.

The findings of studying non-personal students' self-emotional regulation problems related to instructors showed that instructors focused more on imparting theoretical knowledge and less on interacting with students in classroom teaching, thus providing limited or no opportunities for students to practice self-emotional regulation. The survey also showed that some instructors' attitudes towards students affected students' willingness to participate in classroom activities. For example, inappropriate comments, ridicule, or negativity were made by some instructors to students when they answered questions incorrectly, thus discouraging students from speaking in class. Some instructors were very serious in class and had a monotonous teaching style, resulting in students failing to grasp knowledge in class and not knowing how to apply it afterward.

A study of general problems revealed that students tend to be unsociable, introverted, reluctant to communicate with others, and struggle to control their emotions.

All these problems can be attributed to an instructor-centered approach, where instructors focus on teaching theory rather than teaching students how to practice emotional regulation. They assign reading tasks, complete post-class exercises, and psychometric quizzes, and lack interesting and interactive activities for students to practice their emotional regulation. The learning atmosphere is not relaxed because students would get negative feedback from the instructor when they do not perform well in class. Students never learn to modify situations, deploy their attention, or choose positive regulation strategies, and they don't have the opportunity to discuss and interact with their peers in class. This result is consistent with the findings of Hu (2021) on the problems of instructional methods in university students' mental health education courses, which found that the courses were dominated by the instructor's lecture method, and there was too little communication and interaction with the students, and the students' true inner thoughts were seldom understood by the instructor, who only taught some very shallow knowledge from the books, which was not obvious in practical utility.

1.2 The findings of studying how positive psychology theory and collaborative learning approach can be implemented to enhance students' self-emotional regulation ability from experts

The findings of a study by experts on how positive psychology theory and collaborative learning approach can be implemented to enhance students' self-emotional regulation ability revealed that students need to build positive relationships with their instructors and peers, focus more on their strengths than their weaknesses, and value their personal growth and development. The findings also showed that group discussions, jigsaw activities, and question-and-answer exercises could enhance students' self-emotional regulation ability.

The findings of the research on the importance of positive psychology theory suggest that by applying positive psychology theory to enhance students' self-emotional regulation ability, instructors must create a safe and positive environment for students, organize positive and interesting activities, and give positive feedback to students to motivate them to participate in the activities and allow them to perform positively in the activities. Students need positive relationships with instructors and peers for support and affirmation. Students should focus more on their strengths than their weaknesses and value personal growth and development.

For the collaborative learning approach aspect, the interviews revealed that the collaborative learning approach involves active interaction and dialogue between people working towards the same goal. Instructors should observe and track student activities, explain tasks, group and assign students, practice and present tasks, and give feedback on progress. Students should have the opportunity to engage in interesting learning activities in small groups that lead to a sense of participation and affirmation. The results of the interviews also showed that group dialogue, jigsaw activities, group discussions, and question-and-answer exercises could enhance students' self-emotional regulation ability.

The findings provided by the experts are consistent with the principles of positive psychology (Seligman & Csikszentmihalyi, 2000) and the cooperative learning approach (Johnson & Johnson, 2008:29), which state that positive social interactions in a positive environment, with a focus on positive development and strengths, can help to enhance self-emotional regulation ability. In addition, Taylor et al. (2017) conducted a meta-analysis that further supports this conclusion, demonstrating that social and emotional learning (SEL) interventions within school environments significantly improve students' emotional regulation and contribute to long-term psychological well-being.

2. The findings of an instructional model development and quality assessment

2.1 The findings of the instructional model development

The findings of the instructional model development revealed that an instructional model based on positive psychology theory and collaborative learning approach for self-emotional regulation ability enhancement consisted of five components, including principle, learning objective, content, learning process, and evaluation. The learning process consisted of five learning steps including concept explanation and task publication, formation of supportive learning groups and division of labor, collaboration and identification of strengths, sharing and gratitude expression, growth and progress feedback.

2.2 The findings of the appropriateness of the instructional model

The findings of an instructional model evaluation revealed that the developed instructional model was at the highest level of appropriateness ($\bar{X}= 4.59$, S.D.= 0.69), and the instructional model manual was at the highest level of appropriateness ($\bar{X}= 4.52$, S.D.=0.81). The appropriateness might have resulted from the following reasons:

The researcher first studied students' problems with self-emotional regulation and how positive psychology theory and collaborative learning approach could be implemented to enhance their self-emotional regulation ability through interviews with students and experts. During the interview stage, principles and important features of positive psychology theory and collaborative learning approach, the instructor's role, the student's role, and learning activities were obtained, which were used in the design and development of the instructional model for developing the instructional model. Due to students' self-emotional regulation problems, positive psychology theory and collaborative learning principles that were studied before instructional model development, the researcher gained useful information which was used to design and develop the instructional model for the mental health education class.

Therefore, the instructional model is the most appropriate. The instructional model manual and lesson plans were equally designed. The documents were checked and corrected by academic advisors and experts to make them more appropriate. The instructional model, the instructional model manual, and other related documents were presented to five experts (experts in the fields of curriculum and instruction, research and development, measurement and evaluation, and psychology) to assess the appropriateness of the instructional model and related documents. The findings of the instructional model and the instructional model manual evaluation revealed that they were at the highest level of appropriateness.

Based on section two of the evaluation, experts were required to provide comments and suggestions on the instructional model and the instructional model manual. Most of them agreed that all components of the instructional model and the instructional model manual were clearly explained, interrelated, and easy to understand. However, the experts suggested that the instructional model and instructional model manual should be pilot tested before proper implementation.

In addition to the evaluation of the instructional model by experts, the instructional model and the instructional model manual were pilot tested in a class of 35 freshmen students over four weeks to examine the effectiveness of the instructional model in terms of learning content, timeframe, learning activities, learning materials, and learning processes. During the pilot study, several modifications and adjustments were made to consider the students' classroom performance and the results of the pre-tests and post-tests. This made the instructional model and the instructional model manual more appropriate and effective.

Based on the findings of evaluation by experts and the pilot study to determine the level of appropriateness and effectiveness of the instructional model, it was therefore concluded that the instructional model based on positive psychology theory and the collaborative learning approach for mental health education instruction was appropriate at the highest level and qualified to be used for self-emotional

regulation ability enhancement. Johnson, Johnson, and Smith (1998) provide foundational support by demonstrating that cooperative learning fosters higher achievement and deeper engagement in college students. Their research highlights that environments promoting teamwork and social support enhance students' academic performance and learning depth, which aligns with the collaborative learning strategies used in the instructional model. The evaluation results of this instructional model are also consistent with the views of Joyce, Weil, and Calhoun (2004), who suggest that during the instruction process, instructors engage students in intense cognitive and social tasks and teach them how to cognitively apply these tasks. Additionally, successful instructors instruct students on how to focus on information during discussions and transform it into their knowledge. Effective learners can draw information, ideas, and wisdom from instructors and peers, and utilize learning resources effectively. Furthermore, Klem and Connell (2004) emphasized the critical role of teacher support in fostering student engagement and academic success, noting that positive relationships between teachers and students significantly influence both emotional and academic outcomes. These studies collectively reinforce the validity of the instructional model, demonstrating that cooperative learning and teacher support are essential for enhancing self-emotional regulation and academic achievement.

From the evaluation of the instructional model by experts and pilot study, the results of the instructional model development based on positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students revealed that the instructional model is appropriate, suitable and effective, and can be implemented for mental health education instruction.

3. The findings of studying the results of university students' self-emotional regulation ability after the implementation of an instructional model

3.1 The findings of the classroom observations during the implementation of the instructional model showed that there was good interaction between students and between students and the instructor during the tasks. The instructional model was

systematized, expertly checked and pilot-tested to determine its appropriateness and effective indicators for mental health education instruction. Equally, teaching was explicitly conducted following the instructional model learning processes and procedures designed by the researcher, following the key features of positive psychology theory and collaborative learning approach such as interesting learning activities that enable students to participate in the whole process, focusing on the reflection of previous emotional regulation experiences and the application of situation modification, attentional deployment, and strategy choice, rather than only learning theoretical knowledge. They could interact with fellow instructors, learn from the practices of their peers, discuss and analyze cases together, and solve problems collaboratively. In addition, all reading activities and psychometric tests were canceled during the learning process, reducing the instructor's time for theoretical lectures and giving students enough time to practice and improve their self-emotional regulation. The instruction involved critical analyses of real-life situations that were within the scope of the student's learning, and the instructional materials included PowerPoint, charts, videos, television, and a projector. In the study guide, students engaged in collaborative activities such as discussing and analyzing cases, sharing personal experiences, role-playing, observing and evaluating, and question and answer sessions, which gave them more opportunities to discuss and apply emotional regulation methods in the classroom. Students were actively involved in the learning process, interacting with peers and the instructor, sharing information, practicing, and reporting on learning outcomes, supporting each other, and completing tasks with motivation and feedback on progress from instructors. Regularly carrying out these activities in the classroom, the instructor created a safe and positive learning atmosphere, and the interaction between students enabled them to help and appreciate each other, which formed positive interpersonal relationships.

3.2 The findings of the instructional model implementation showed that students' self-emotional regulation ability was significantly higher after the

implementation of the instructional model than before at the 0.01 level. These findings are consistent with the research hypothesis. The students showed enhancement in situation modification, attentional deployment, and strategy choice. The increase in students' self-emotional regulation ability was due to some key factors:

Throughout the learning process, all these elements of positive psychology theory and collaborative learning processes provide students with opportunities to communicate, discuss, reflect, interact, and work in groups to complete and present emotional regulation tasks that help to enhance their self-emotional regulation. Students could learn methods of self-emotional regulation and apply them. Some students who are prone to losing control of themselves perform better and better, and those who are introverted and do not fit in are less stressed, feel relaxed, and are willing to participate in completing tasks in a collaborative learning atmosphere, thus enhancing their self-emotional regulation ability. All made students' self-emotional regulation ability better after the implementation of the instructional model than before. Meanwhile, an interesting finding was that students' self-emotional regulation ability enhanced from poor and fair levels to medium and good levels but did not reach an excellent level. This may be related to the duration of the instructional model implementation. The researcher implemented the instructional model based on positive psychology theory and the collaborative learning approach for eight weeks, which might have been too short a time for students to achieve an excellent level of self-emotional regulation. The findings of this study are consistent with the principles of positive psychology theory and collaborative learning approach, which emphasizes students' strengths and positive qualities, and that learning will be facilitated through collaborative learning and by building positive interpersonal relationships in a positive classroom atmosphere.

The findings are consistent with the findings of other researchers, such as Zheng et al. (2022) who developed an instructional model based on positive psychology theory to improve the emotional regulation ability of Chinese college students, addressing issues related to academic boredom and intrinsic motivation. The results

showed that, compared to the control group of 87 students, the 86 students who implemented the new instructional model had a significant reduction in academic boredom related to learning and classroom activities and a notable improvement in emotional regulation ability. These results are also consistent with the results of Järvenoja, Malmberg, Törmänen, Mänty, Haataja, Ahola, and Järvelä (2020), who researched the implementation of collaborative learning designs in science classrooms to enhance students' emotional regulation. Their design, based on the self-regulated learning framework, provides opportunities and support for self-regulation among individual learners and collaborative groups. The results are also consistent with the findings of Järvenoja, Näykkiand, and Törmänen (2019), who applied group collaborative learning in a six-week mathematics course with 62 higher education students. Their results emphasized the crucial role of group collaborative learning in enhancing students' emotional regulation abilities. This was consistent with Johnson et al. (2014) view that collaborative learning built positive interpersonal relationships characterized by personal and academic support and promoted mental health and well-being (including self-esteem and social competence). In collaborative groups, students could engage in discussions in which they construct and extend their conceptual understanding of what they are learning.

4. The findings of exploring students' satisfaction with an instructional model implementation

To monitor students' progress, achievement based on expected goals, and student satisfaction with the instructional model, an evaluation of the implementation of an instructional model based on positive psychology theory and collaborative learning approach to enhance university students' self-emotional regulation ability was conducted. The evaluation focused on validating progress rather than judgment of results. The evaluation was intended to ensure that changes and results were occurring as expected. The evaluation considered students' satisfaction with the learning process,

learning content, learning activities, learning atmosphere, instructional materials, instructor's role, evaluation, and self-emotional regulation ability development.

The findings of exploring students' satisfaction with the instructional model learning process revealed that students' satisfaction was at the highest level. Students reported that the instructional model based on positive psychology theory and collaborative learning approach provided them with opportunities to interact with classmates and the instructor during the learning process. The high level of satisfaction might be attributed to the structured and orderly execution of the learning process as designed by the instructional model. The safe and positive atmosphere created by the instructor, engaging tasks, positive peer attention and feedback, the instructor's support and encouragement, and a variety of instructional materials consistently motivated students to engage in learning. The entire learning process was relaxed and enjoyable, closely related to students' real-life activities, and contributed to enhancing their self-emotional regulation ability. These findings are in line with Hattie's (2009) view that instructors should understand learners' problems, focus on setting challenging learning intentions, and focus on learning strategies, emphasizing the important role of the instructor in understanding students' needs, providing feedback, and selecting appropriate learning activities. Similarly, Tinto (1997) emphasizes that collaborative learning and a strong sense of classroom community significantly enhance student satisfaction and persistence. His findings support the idea that meaningful student-teacher interactions and peer engagement are key drivers of a positive learning experience.

Conclusion

The study identified several self-emotional regulation problems faced by students. Through expert interviews, key information was obtained on how to implement an instructional model based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability.

This information was crucial for researchers in developing the instructional model and the instructional model manual.

The instructional model developed was found to be of high quality, effectively integrating positive psychology and collaborative learning. The model provided varied learning activities and materials. These activities were well-received by students and facilitated a supportive learning environment. The constant encouragement and motivation from the researcher further enhanced students' willingness to participate and share their emotional regulation experiences.

The findings of the implementation of the instructional model showed that students' self-emotional regulation ability was significantly enhanced. Learning instruction, learning activities, learning materials, and learning environments that enable students to interact in small groups, prepare, share, and debrief with the help of the instructor, and receive feedback and guidance on their progress will develop and enhance their self-emotional regulation ability. The interactive and student-centered nature of the model, which included active participation in small groups and receiving feedback, was crucial to its effectiveness.

Finally, students expressed high levels of satisfaction with the instructional model. They appreciated the variety of tasks and exercises, and a safe, positive learning environment. Most importantly, motivating, helping, giving positive feedback and guiding learners throughout the learning process goes a long way in enhancing their self-emotional regulation ability. Enhancing students' self-emotional regulation ability will help them to enhance their academic performance, improve their interpersonal relationships, and promote their mental health. It enables students to solve problems more confidently and effectively and improves their resilience.

Recommendations from Research

From the implementation of an instructional model based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability, the following recommendations are made:

1. Recommendations for Applying the Research Findings

1.1 According to the findings of this study, the implementation of an instructional model based on positive psychology theory and collaborative learning approach proved to be effective in enhancing students' self-emotional regulation ability. It also leads to better teaching and learning in mental health education programs. Therefore, stimulating and challenging collaborative learning activities should be organized in the classroom for students to interact and share to enhance their self-emotional regulation ability.

1.2 Activities based on positive psychology theory and collaborative learning approach are fun and challenging. Everyone is actively involved in completing tasks. Through collaborative learning activities, students share experiences in a safer and more positive atmosphere as they complete group tasks. As a result, their self-emotional regulation ability was enhanced. This suggests that the instructional model based on positive psychology theory and collaborative learning approach increases students' engagement in group tasks. They were relaxed and more confident when they talked to their peers, and as a result, they were more motivated and found the activities fun and challenging.

1.3 The findings of the study showed that the highest level of appropriateness of instructional model, instructional model manual, lesson plans, and other documents were evaluated by the experts. Therefore, universities can use these guidelines and methods to develop instructional models, especially in the field of mental health education teaching, to effectively enhance students' self-emotional regulation ability.

1.4 In addition, due to the use of teaching materials such as PPTs, videos, and other visual aids, the students were able to better understand the content and complete the tasks. This means that the use of visual aids such as PPTs and videos in the teaching and learning process is helpful enough to attract students' attention and enhance their self-emotional regulation ability. By presenting PPTs and videos, students become interested in learning and understanding the content. In addition, when students are interested in the teaching materials, it will be easier for them to learn and understand the content.

2. Recommendations for Future Research

2.1 This study is an empirical study with a small sample group (only 40 students out of about 1000) from Guangxi University of Science and Technology, China. Therefore, the interpretation and generalization of the findings are limited. Future research could expand the scope of the study by increasing the sample and its representativeness to include not only students but also other relevant people, to broadly explain the impact of an instructional model based on positive psychology theory and collaborative learning approach on enhancing self-emotional regulation ability.

2.2 At the same time, the eight-week duration of the instructional model implementation was too short for learners to fully master the methods for enhancing their self-emotional regulation. To elevate learners' self-emotional regulation ability to an excellent level, future research could consider extending the implementation period.

2.3 Furthermore, it is also meaningful to study how this instructional model affects other abilities beyond emotional regulation. This is because most university students still need to enhance their abilities in areas such as interpersonal communication, adaptation, and problem-solving.

2.4 Additionally, this instructional model based on positive psychology theory and collaborative learning approach can also be used to cultivate self-emotional regulation ability in other professions (such as police officers, firefighters, nurses, and

preschool instructors), preparing them to better regulate their emotions when facing work-related stress. Similarly, further research can compare the effectiveness of this combined approach (positive psychology theory and collaborative learning approach) with other methods (such as task-based learning, case studies, etc.).



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APPENDIX

APPENDIX A

LIST OF INTERVIEWED EXPERTS

- 1 Assistant Professor Dr. Jakkrit Jantakoon
Faculty of Education, Naresuan University
 - 2 Assistant Professor Dr. Angkana Onthanee
Faculty of Education, Naresuan University
 - 3 Assistant Professor Dr. Xu Yidan
Faculty of Education, Guangxi University of Science and Technology
 - 4 Professor Dr. Pan Qingquan
Faculty of Management, Guangxi University of Science and Technology
- 

LIST OF EXPERTS FOR RESEARCH TOOLS EVALUATION

- 1 Assistant Professor Dr. Jakkrit Jantakoon
Faculty of Education, Naresuan University
- 2 Assistant Professor Dr. Angkana Onthanee
Faculty of Education, Naresuan University
- 3 Assistant Professor Dr. Ding Shuo
Faculty of Education, Guangxi University of Science and Technology
- 4 Associate Professor Dr. Wu Bo
Centre for Research on the Development of Instruction, Guangxi University
of Science and Technology
- 5 Professor Qin Fuli
Centre for Research on the Development of Instruction, Guangxi University
of Science and Technology



APPENDIX B

Structured interview guide on students' Self-emotional regulation problems

A. Opinions on self-emotional regulation

1. Do you think regulating your negative emotions is an important ability? Why or why not?

B. Problems

Personal reasons

2. What problems do you have with personal reasons that affect your self-emotional regulation ability:

- a) situation modification
- b) attentional deployment
- c) strategy choice

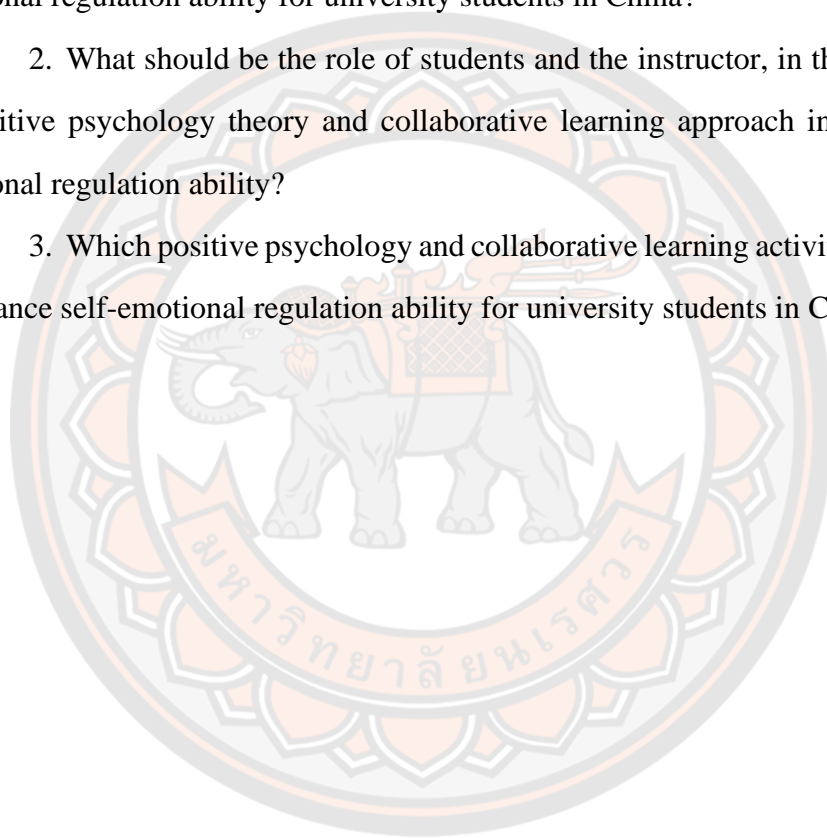
Non-personal reasons

3. Are there any problems related to instructors and their instructional methods concerning the self-emotional regulation ability?

4. What are some of the problems you generally encounter in learning to regulate your own emotions?

Structured interviews for experts on how positive psychology theory and collaborative learning approach can be implemented to enhance self-emotional regulation ability for university students in China

1. What are the principles and important features of positive psychology theory and collaborative learning approach that can be implemented to enhance self-emotional regulation ability for university students in China?
2. What should be the role of students and the instructor, in the effective use of positive psychology theory and collaborative learning approach in teaching self-emotional regulation ability?
3. Which positive psychology and collaborative learning activities can be used to enhance self-emotional regulation ability for university students in China?



Item Objective Congruent (IOC) for the Structured Interviews for Students, and Experts on the problems, and how positive psychology theory and collaborative learning approach are used to enhance self-emotional regulation ability

Evaluated Items	Expert					IOC	Interpretation
	1	2	3	4	5		

A. Structured Interview for students on self-emotional regulation problems								
Basic information								
1	Do you think regulating your negative emotions is an important ability? Why or why not?	1	1	1	1	1	1.00	Good
Problems								
Personal problems								
2	What problems do you have with personal reasons that affect your self-emotional regulation ability? a) situation modification b) attentional deployment c) strategy choice	1	1	1	1	1	1.00	Good
Non-personal reasons								
3	Are there any problems related to instructors and their instructional methods concerning the self-emotional regulation ability?	1	1	1	1	1	1.00	Good
4	What are some of the problems you generally encounter in learning to regulate your own emotions?	1	1	1	1	1	1.00	Good

B. Structured Interview for Experts on how positive psychology theory and collaborative learning approach can be used to enhance self-emotional regulation ability for university students in China								
Evaluated Items		Expert					IOC	Interpretation
		1	2	3	4	5		
1	What are the principles and important features of positive psychology theory and collaborative learning approach that can be implemented to enhance self-emotional regulation ability for university students in China?	1	1	1	1	1	1.00	Good
2	What should be the role of students and the instructor, for effective use of positive psychology theory and collaborative learning approach in teaching self-emotional regulation ability?	1	1	1	1	1	1.00	Good
3	Which positive psychology and collaborative learning approach activities can be used to enhance self-emotional regulation ability for university students in China?	1	1	1	1	1	1.00	Good

Interview form for students' self-emotional regulation problems

Student's name:	
Date/ time	
Issues under study	
A. Basic information	Significance of self-emotional regulation
B. Problems	
1. Personal problems	Situation modification
	Attentional deployment
	Strategy choice
2. Non-personal problems	Instructor-related problems
	Instructor's teaching methods
	General problems
	Others

Interview form for Experts on how to implement positive psychology theory and collaborative learning approach to enhance self-emotional regulation ability for university students in China

Issues studied	Results and evidence
Principles and important features of positive psychology theory	
Principles and important features of collaborative approach	
Role of the instructor and students in positive psychology theory and collaborative learning process	Instructor
	Students
Positive psychology learning activities	
Collaborative learning activities	

APPENDIX C

Instructional Model Evaluation Form

Instructions for the Experts

This evaluation form is designed for experts to assess the appropriateness and effectiveness of the instructional model. The evaluation areas are outlined below:

1. Principle
2. Objective
3. Content
4. Learning process
5. Evaluation

The evaluation form comprises two sections: section one employs 5-level rating scale criteria (1-5). Items with an average score equal to or higher than 4 are considered appropriate and will be retained, while items with an average score lower than 4 will be modified, adjusted or reworded according to the experts' comments. Section two is open-ended, enabling experts to provide comments and suggestions. In section one, please check (✓) the evaluated item in the table to indicate the status of the components of the instructional model.

- 5 = Most Appropriate
- 4 = More Appropriate
- 3 = Moderately Appropriate
- 2 = Less Appropriate
- 1 = Least Appropriate

In part two, more comments and suggestions are required.

Section one:

Please tick (√) the evaluated item in the table identifying the appropriateness and effectiveness of the components of an instructional model.

Components of Instructional Model	Level of Appropriateness				
	5	4	3	2	1
Principle					
All theoretical bases related to positive psychology and collaborative approach are clear and rationale.					
All positive psychology and collaborative theoretical bases support the development of self-emotional regulation ability.					
All positive psychology and collaborative theoretical bases clearly explain what is expected to be achieved.					
Objective					
The learning objective is related to the principles.					
The learning objective is clear and reasonable.					
This objective addresses the difficulties of Chinese students.					
Learning objective is realistic.					
Content					
The learning content is related to the principles.					
The learning content is related to the objectives of the course.					
The learning content is relevant to the difficulties of Chinese university students.					
Learning content can be used to enhance students' self-emotional regulation ability.					
The learning content is not too difficult for the students at this level.					

Components of Instructional Model	Level of Appropriateness				
	5	4	3	2	1
Learning Process					
The learning process is related to the principles.					
The learning process is in line with the objectives.					
The learning process facilitates the attainment of the learning objectives.					
The positive psychology and collaborative learning processes are clear.					
Positive psychology and collaborative learning processes foster to enhance self-emotional regulation ability.					
The learning process encourages the learner's participation.					
Evaluation					
The evaluation method is clear and measurable.					
The evaluation can evaluate self-emotional regulation ability.					

Thank you

Section two:

Please write comments and suggestions for an instructional model based on positive psychology theory and collaborative approach to enhance students' self-emotional regulation ability taking into consideration the following.

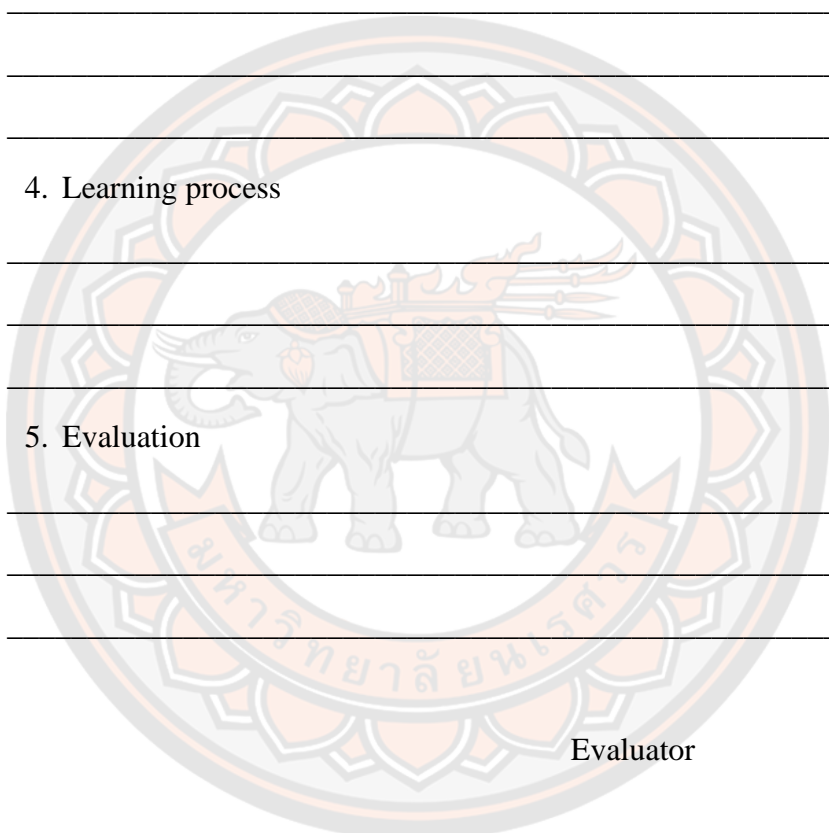
1. Principle

2. Objective

3. Content

4. Learning process

5. Evaluation



Evaluator

Expert Rating Summary for the Instructional Model

Components of Instructional Model	Experts				
	1	2	3	4	5
Principle					
All theoretical bases related to positive psychology and collaborative approach are clear and rational.	5	5	5	4	5
All positive psychology and collaborative theoretical bases support the development of self-emotional regulation ability.	5	5	5	3	5
All positive psychology and collaborative theoretical bases clearly explain what is expected to be achieved.	5	5	5	3	5
Objective					
The learning objectives are related to the principles.	5	5	5	3	5
The learning objective is clear and reasonable.	4	5	5	4	5
This objective addresses the difficulties of Chinese students.	5	5	5	5	5
Learning objectives are realistic.	5	5	5	4	5
Content					
The learning content is related to the principles.	5	5	5	3	5
The learning content is related to the objectives of the course.	5	4	5	4	4
The learning content is relevant to the difficulties of Chinese university students.	5	5	5	5	4
Learning content can be used to enhance students' self-emotional regulation ability.	4	4	4	4	4
The learning content is not too difficult for the students at this level.	5	5	5	4	5
Learning Process					
The learning process is related to the principles.	5	5	5	3	5

Components of Instructional Model	Experts				
	1	2	3	4	5
The learning process is in line with the objectives.	5	5	5	3	5
The learning process facilitate the attainment of the learning objectives.	4	4	4	3	5
Positive psychology and collaborative learning process are clear.	5	5	5	3	4
Positive psychology and collaborative learning process foster to enhance self-emotional regulation ability.	5	5	4	3	4
Learning process encourages learner's participation.	4	5	4	3	4
Evaluation					
The evaluation method is clear and measurable.	5	5	5	3	5
The evaluation can evaluate self-emotional regulation ability.	5	5	5	4	5

Instructional Model Manual Evaluation Form

Instructions for the Experts

This evaluation form is designed for experts to evaluate the appropriateness and effectiveness of instructional model manuals and lesson plans based on positive psychology theory and collaborative learning approach aimed at enhancing students' self-emotional regulation ability. The evaluation form outlines seven specific areas for assessment.

The evaluation form has two main parts. Part one is a five-point Likert scale and part two is open-ended for experts to evaluate the instructional model manual and lesson plans based on the contents of the research manual and make comments and suggestions. In part one, check (✓) the items in the table to determine the level of appropriateness and effectiveness of the instructional model manual and lesson plans based on the following criteria:

- 5 = Most appropriate
- 4 = More appropriate
- 3 = Moderately appropriate
- 2 = Less appropriate and needs modifications
- 1 = Least appropriate and needs modifications

In part two, more comments and suggestions are required

Part one:

Components of Instructional Model Manual	Level of Appropriateness				
	5	4	3	2	1
The introduction of the instructional model manual is clear.					
The instructional model directions are well comprehended.					
The objective of the instructional model manual is clear and relevant to the difficulties of Chinese university students.					
The introduction of using an instructional model is suitable.					
The requirement of a learning environment is conducive to the development of the instructional model					
The instructor's role is articulated and easy to implement.					
The student's role is articulated and easy to implement.					
The learning procedure is well organized and connected.					
The learning content is appropriate for students at this level.					
The learning materials are related to the learning content.					
The timeframe is applicable for both the lesson and practical activities.					
Lesson Plan					
Specification of components of the lesson plans					
All the components of the lesson plans are completely specified.					
All the components of the lesson plans are appropriately arranged.					
Conformity of the components of the lesson plans.					

Components of Instructional Model Manual	Level of Appropriateness				
	5	4	3	2	1
Appropriateness and effectiveness of the components of the lesson plans					
Topic: The topics are appropriate.					
Duration: The time allocated for teaching and learning is appropriate.					
Objectives: The objectives of the lesson plans are clear and related to the objectives of the instructional model. The objectives are feasible.					
Instructional strategies: The instructional strategies are related to the objectives of the lessons.					
Learning content: The selected content is linked to the objectives of the course and the objectives of the instructional model.					
Learning Instruction/Activities					
All activities identified in each step are concise and easy to implement.					
The procedures and activities are properly organized for the effective implementation of the lesson.					
The arrangement for each step of instruction is consistent with the development of self-emotional regulation ability.					
Learning materials					
The learning materials are easy and convenient to prepare.					
The learning materials are relevant to the instructional objectives.					

Components of Instructional Model Manual	Level of Appropriateness				
	5	4	3	2	1
Learning materials are related to the learning content.					
Learning Assessment					
The methods of assessment are related to the objectives of the lessons.					
The instruments of assessment are concise and are used easily.					
Evaluation					
The instruments of evaluation are concise and are used easily.					
The evaluation is related to the objectives of the instructional model.					
The evaluation model is clear and relevant to the learning content.					

Part two:

Please write comments and suggestions on the appropriateness and effectiveness of the instructional model manual and lesson plans based on positive psychology theory and collaborative learning approach to enhance students' self-emotional regulation ability in the following areas:

1. Instructional model introduction

2. Directions

3. Objectives

4. Introduction

5. Learning environment

6. Instructor's role

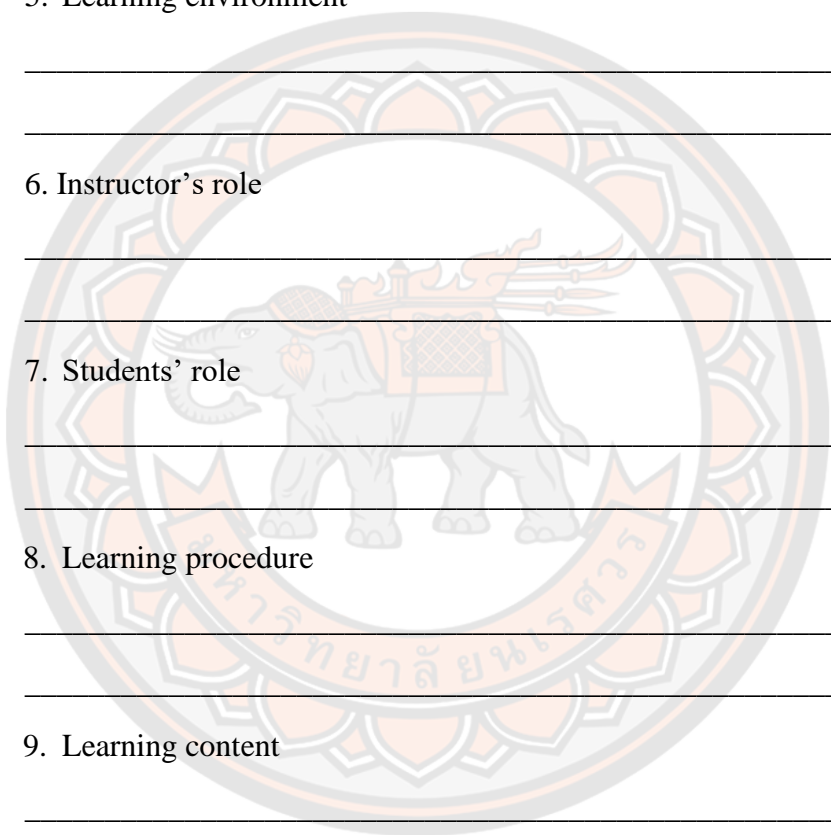
7. Students' role

8. Learning procedure

9. Learning content

10. Learning materials

11. Timeframe



12. Lesson plans

13. Evaluation

Evaluator



Expert Rating Summary for the Instructional Model Manual

Components of Instructional Model Manual	Experts				
	1	2	3	4	5
The introduction of the instructional model manual is clear.	5	5	5	3	4
The instructional model directions are well comprehended.	5	5	5	3	5
The objective of the instructional model manual is clear and relevant to the difficulties of Chinese university students.	5	5	5	3	5
The introduction of using an instructional model is suitable.	5	5	5	4	4
The requirement of a learning environment is conducive to the development of the instructional model	5	5	5	3	5
The instructor's role is articulated and easy to implement.	5	5	5	4	4
The student's role is articulated and easy to implement.	5	5	5	3	4
The learning procedure is well organized and connected.	5	5	5	3	4
The learning content is appropriate for students at this level.	5	5	5	4	4
The learning materials are related to the learning content.	5	5	5	3	4
The timeframe is applicable for both the lesson and practical activities.	5	5	5	3	4
Lesson Plan					
Specification of components of the lesson plans					
All the components of the lesson plans are completely specified.	5	5	5	4	5
All the components of the lesson plans are appropriately arranged.	5	5	5	3	4
Conformity of the components of the lesson plans.	5	5	5	3	4

Components of Instructional Model Manual	Experts				
	1	2	3	4	5
Appropriateness and effectiveness of the components of the lesson plans					
Topic: The topics are appropriate.	5	5	5	4	5
Duration: The time allocated for teaching and learning is appropriate.	5	5	4	3	4
Objectives: The objectives of the lesson plans are clear and related to the objectives of the instructional model. The objectives are feasible.	5	5	5	4	5
Instructional strategies: The instructional strategies are related to the objectives of the lessons.	4	5	4	3	5
Learning content: The selected content is linked to the objectives of the course and the objectives of the instructional model.	5	5	4	3	5
Learning Instruction/Activities					
All activities identified in each step are concise and easy to implement.	5	5	5	3	4
The procedures and activities are properly organized for the effective implementation of the lesson.	5	5	4	3	4
The arrangement for each step of instruction is consistent with the development of self-emotional regulation ability.	5	4	5	3	4
Learning materials					
The learning materials are easy and convenient to prepare.	5	5	5	3	5
The learning materials are relevant to the instructional objectives.	5	5	5	3	5
Learning materials are related to the learning content.	5	5	5	4	4

Components of Instructional Model Manual	Experts				
	1	2	3	4	5
Learning Assessment					
The methods of assessment are related to the objectives of the lessons.	5	5	5	3	5
The instruments of assessment are concise and are used easily.	5	5	5	3	5
Evaluation					
The instruments of evaluation are concise and are used easily.	5	5	5	3	5
The evaluation is related to the objectives of the instructional model.	5	5	5	3	5
The evaluation model is clear and relevant to the learning content.	5	5	5	3	5

Classroom Observation Records for Instructional Model

No.	Observation elements of classroom activities		
1	Student group division of labor and collaborative interaction	Leader	
		Recorder	
		Sharer	
		Observer	
		Reporter	
2	Interaction between students and instructor		
3	Classroom atmosphere		
4	Use of instructional materials		
5	Growth and progress feedback evaluation		

An Instructional Model Manual for Enhancing Self-emotional Regulation Ability for University Students in China

1. Introduction

The instructional model manual provides a detailed, step-by-step guide for implementing this instructional model that enhances students' self-emotional regulation ability, grounded in positive psychology theory and collaborative learning approach. It covers essential elements such as the introduction, learning objectives, learning environment, roles of students and instructors, learning procedure, learning content, learning materials, timeframe, lesson plans, and evaluation.

To effectively use this instructional model manual, readers should follow the outlined instructions to apply this model in their educational practice, ensuring a comprehensive approach to fostering students' self-emotional regulation. This instructional model manual is intended as a practical resource to support the enhancement of self-emotional regulation ability among Chinese university students.

Zhu Yan

2 Directions

This instructional model manual is developed to facilitate the use of an instructional model based on positive psychology theory and collaborative learning approach in universities to enhance students' self-emotional regulation ability. Therefore, any instructor who wishes to use this model must strictly follow the directions as explained in the manual under the following aspects: learning objective, learning introduction, learning environment, instructor's role, students' role, learning procedure, learning content, learning materials, timeframe, lesson plans, learning evaluation.

2.1 Learning Objectives

To enhance Chinese university students' self-emotional regulation ability, consider the following abilities:

2.1.1 Students will use situation modification methods to regulate emotions after negative emotions arise.

2.1.2. Students will use attentional deployment to regulate their emotions after a negative emotion arises.

2.1.3. Students will choose positive strategies to regulate emotions after negative emotions have arisen.

2.2 Learning Introduction

Regarding the enhancement of students' self-emotional regulation ability, the following instructional approaches are recommended.

2.2.1 Critically examine instructional models to understand the background, theoretical approaches to instructional model development, components, and relationships among them.

2.2.2 The instructional model manual should be critically read and clearly understood by anyone wishing to use the instructional model to enhance students' self-emotional regulation ability.

2.2.3 He/she should carefully read the learning instructions on enhancing students' self-emotional regulation ability.

2.2.4 He/she should carefully select the relevant materials.

2.2.5 He/she should follow a structured lesson plan to enhance students' self-emotional regulation ability.

2.2.6 He/she should use appropriate assessment tools to evaluate students' self-emotional regulation ability.

2.3 Learning Environment

This instructional model combines the positive psychology theory and collaborative learning approach with a classroom environment that enables instructors and students to carry out learning activities successfully. Instructors should create a safe and positive environment in the classroom that is conducive to positive collaboration and communication. The learning environment is relaxed, free, and equal. Students are free to interact in the classroom because they receive positive feedback, are encouraged, and are motivated to speak.

2.4 Instructor's Role

Since the instructor is to utilize this innovation to enhance students' self-emotional regulation ability, therefore, it can be said that the instructor plays an important role in the implementation of this innovation as follows:

2.4.1 Prepares instructional materials, lesson plans, PowerPoint, case studies, and videos needed to effectively implement the innovation.

2.4.2 Prepares and conducts pre-tests to measure the students' self-emotional regulation ability before starting the appropriate instructional process.

2.4.3 Creates a safe environment in the classroom where students feel safe emotionally and physically.

2.4.4 Follows lesson plans and planned activities for appropriate instruction. Explain the practice of self-emotional regulation and show the student the indicators and purpose.

2.4.5 Organizes heterogeneous groupings. The groups should be formed with consideration of a balanced mix of abilities and backgrounds.

2.4.6 Explains students' duties in their group. Determines the division of labor (leader, recorder, sharer, observer, reporter).

2.4.7 Provides students with opportunities to practice self-emotional regulation during each instructional learning process by organizing collaborative learning.

2.4.8 Observe students' performance during the instructional learning process and provide positive feedback and assessment of students.

2.4.9 If some students are not able to follow the lesson completely, the instructor re-teaches them and re-evaluates them to make sure they understand correctly.

2.4.10 Motivates students by giving positive feedback after group discussions and presentations. Evaluates students' self-emotional regulation ability according to the objectives.

2.5 Student's Role

In the process of teaching and learning, they should study the standards and indicators of the content.

2.5.1 Students should understand the content.

2.5.2 Students should know and understand their duties in the group.

2.5.3 Students should participate in all tasks for each activity from start to finish.

2.5.4 Students are expected to concentrate, actively participate in the classroom learning process, and complete tasks assigned by the instructor as required.

2.5.5 Students must work with friends to complete tasks and if they encounter problems they do not understand, students should seek clarification from the instructor.

2.6 Learning Procedure

The details of the learning procedures used to enhance students' self-emotional regulation ability are as follows:

Table 1: Learning Procedure

No	Content	Description	Session	Day
1		Orientation of learners on instructional model implementation Pre-test	Session 1/ 2 hours	1
2	- Mental health education for university students	Lesson Plan 1: Introduction	Session 2/ 2 hours	2
3	- Mental health education for university students	Lesson Plan 2: Psychological counseling for university students	Session 3/ 2 hours	3
4	Mental health education for university students	Lesson Plan 3: Adaptation to university life	Session 4/ 2 hours	4
5	Mental health education for university students	Lesson Plan 4: Adaptation to academic study and teaching methods	Session 5/ 2 hours	5
6	Mental health education for university students	Lesson Plan 5: Interpersonal interaction theory	Session 6/ 2 hours	6
7	Mental health education for university students	Lesson Plan 6: Socialize with roommates/strangers	Session 7/ 2 hours	7

No	Content	Description	Session	Day
8	Mental health education for university students	Lesson Plan 7: University students' expression of friendships and love	Session 8/ 2 hours	8
9	Mental health education for university students	Lesson Plan 8: Psychology of university students' social and sexual interactions	Session 9/ 2 hours	9
10	Mental health education for university students	Lesson Plan 9: Analyze your personality traits and understand common self-awareness biases	Session 10/ 2 hours	10
11	Mental health education for university students	Lesson Plan 10: Discover personal strengths and build self-confidence	Session 11/ 2 hours	11
12	Mental health education for university students	Lesson Plan 11: Put life and death in perspective, cherish life	Session 12/ 2 hours	12
13	Mental health education for university students	Lesson Plan 12: Cope with life's unexpected misfortunes, stress and frustration	Session 13/ 2 hours	13
14		Post-test	Session 14/ 1 hour	14
15		Respond to students' satisfaction questionnaire	Session 15/ 1 hour	15
Total			15 sessions/ 28 hours	15 days

2.7 Learning Content

To enhance students' self-emotional regulation ability, it is suggested that instruction should follow all organized lesson plans, especially learning to teach all the steps to enhance students' self-emotional regulation ability. The content considered in this study is the regulation of negative emotions of individual students, focusing on aspects such as the introduction of learning goals and learning approaches and basic psychology knowledge, adaptation, interpersonal relationships, understanding of love, self-awareness, and life education.

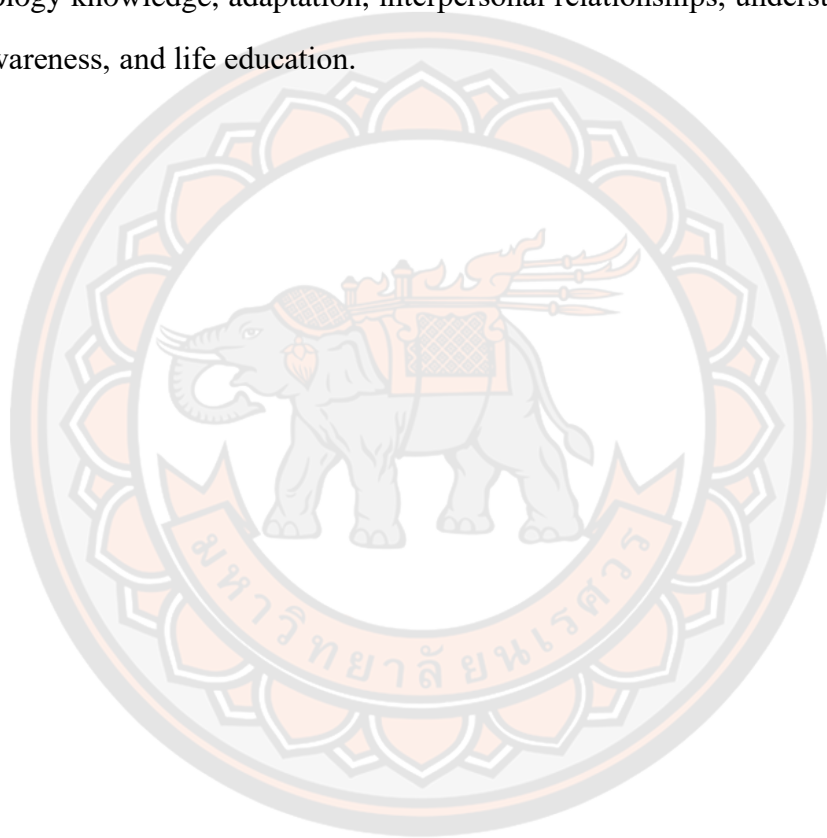


Table2 Learning Content

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
1	Introduction of learning goals and learning approaches and basic psychology knowledge	The instructor introduces the basic theories of mental health education, the importance of emotion regulation, and what affects emotion regulation. Students learn about the components of self-emotional regulation ability.	<ul style="list-style-type: none"> -Students should understand the components of self-emotional regulation ability: situation modification, attentional deployment, and strategy choice. - Practice applying situation modification. - Observers are good at summarizing and identifying character strengths of group members 	<ul style="list-style-type: none"> - Instructor guides, explains emotion regulation theory, and components of self-emotional regulation ability, and announces the group's task. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers positively share the application of situation modification and observers give positive feedback. - Reporters share and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of situation modification based on student sharing. <p>Summarizes the key learning points of the day.</p>	Session 1 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
2	Psychological counseling for university students	<ul style="list-style-type: none"> - Basic knowledge of psychological counseling - Train in attentional deployment for enhanced self-emotional regulation ability. - Utilize case studies and resources to enhance attentional deployment understanding. 	<ul style="list-style-type: none"> - Students understand the role of attentional deployment - Uses attentional deployment to address emotional regulation needs in examples - Observers are good at summarizing and identifying character strengths of group members 	<ul style="list-style-type: none"> - The instructor explains theories and principles of counseling, the application of attentional deployment, and announces the group task. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers positively share the application of attentional deployment and observers give positive feedback. - Reporters share and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of attentional deployment based on students' sharing. Summarizes the key learning points of the day. 	Session 2 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
3	Adaptation to university life	<ul style="list-style-type: none"> - Explain to students the challenges they may face adapting to university life - Teach students positive strategies they can choose when regulating their emotions 	<ul style="list-style-type: none"> - Based on the examples, discuss what strategies are available to regulate emotions after having negative emotions due to not adapting to university life -Employ strategic choices in regulating emotions amid university life challenges. -Observers adept at summarizing and identifying group members' strengths. 	<ul style="list-style-type: none"> - The instructor covers adapting to university life, emphasizes positive emotion regulation strategies, and introduces the group task. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of positive strategies and observers give positive feedback - Reporters share positive findings from the group and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of strategies based on students' sharing. Summarizes the key learning points of the day. 	Session 3 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
4	Adaptation to academic study and teaching methods	<ul style="list-style-type: none"> - Explain challenges in adapting to academic study and teaching methods. - Teach students to apply the situation modification, attentional deployment, and strategy choice in regulating negative emotions 	<ul style="list-style-type: none"> - Explore strategies for regulating emotions post difficulty adapting to academic study and teaching methods. - Students employ situation modification, attentional deployment, and strategy choice for emotional regulation. - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor highlights adapting to academic study, choosing effective emotion-regulation strategies, and introducing the group task. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of strategies based on student sharing. Summarizes the key learning points of the day. 	Session 4 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
5	Interpersonal interaction theory	<ul style="list-style-type: none"> - The instructor introduces interpersonal skills, related theories, and the reasons why interpersonal difficulties trigger negative emotions. 	<ul style="list-style-type: none"> - Students learn about interpersonal interactions - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor gives examples of interpersonal difficulties that trigger negative emotions, selects effective emotion regulation strategies, and presents group work. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of strategies based on student sharing. Summarizes the key learning points of the day. 	Session 5 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
6	Socialize with roommates/strangers	Examples of negative emotions triggered by students' interpersonal difficulties will be cited to teach students how to get along with others and regulate their emotions.	<ul style="list-style-type: none"> - Explore strategies for regulating emotions in the context of difficulties interacting with roommates or others. - Students use situation modification, attentional deployment, and strategy choice to regulate emotions. - Observers excel in summarizing and identifying group members' character strengths. 	<ul style="list-style-type: none"> - The instructor gives examples of interpersonal difficulties that trigger negative emotions, selects effective emotion regulation strategies, and presents group work. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of strategies based on student sharing. Summarizes the key learning points of the day. 	Session 6 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
7	University students' expression of friendships and love	Give examples of negative emotions triggered by students' romantic friendships, and teach students how to face relationship distress and how to regulate their emotions.	<ul style="list-style-type: none"> - Explore strategies for regulating emotions in a challenging romantic relationship. - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor gives examples of romantic obsessions that trigger negative emotions, selects effective emotion regulation strategies, and presents group work. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback on each group's performance and corrects the application of strategies based on student sharing. Summarizes the key learning points of the day. 	Session 7 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
8	Psychology of university students' social and sexual interactions	Examples are given to illustrate the negative emotions triggered by students' disturbances arising from sexual concepts or behaviors, and students are taught how to face the related disturbances and how to regulate their emotions.	<ul style="list-style-type: none"> - Students learn correct concepts of sexuality - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor gives examples of confusing sexual concepts and behaviors that trigger negative emotions, selects effective emotion regulation strategies, and presents group work. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback and corrects the application of strategies based on student sharing. Summarizes the learning points of the day. 	Session 8 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
9	Analyze your personality traits and understand common self-awareness biases	<ul style="list-style-type: none"> - Explain the concept of self-awareness. - Guide students to summarize their personality traits. - Summarize the types of self-awareness biases. 	<ul style="list-style-type: none"> - Students learn about examples of self-awareness bias and the negative emotions it causes - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor gives examples of self-awareness biases that tend to cause negative emotions, selects effective emotional regulation strategies, and presents group task. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback and corrects the application of strategies based on student sharing. <p>Summarizes the learning points of the day.</p>	Session 9 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
10	Discover personal strengths and build self-confidence	Give examples of self-awareness biases that trigger negative emotions, and teach students how to cope with negative emotions brought about by low self-esteem and self-importance, as well as how to regulate their emotions and build self-confidence	<ul style="list-style-type: none"> - Students learn about examples of self-awareness bias and the negative emotions it causes - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor gives examples of self-awareness biases that tend to cause negative emotions, selects effective emotional regulation strategies, and presents group tasks. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback and corrects the application of strategies based on student sharing. Summarizes the learning points of the day. 	Session 10 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
11	Put life and in death perspective, cherish life	Explain diverse life perspectives, cite deviations causing negative emotions, teach coping and emotion regulation in growing up, and emphasize life appreciation.	<ul style="list-style-type: none"> - Students learn about examples of deviant views of life and the negative emotions they cause - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples - Observers excel in summarizing and identifying group members' character strengths 	<ul style="list-style-type: none"> - The instructor gives examples of biases in the view of life that tend to lead to negative emotions, selects effective emotion regulation strategies, and presents group tasks. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback and corrects the application of strategies based on student sharing. <p>Summarizes the learning points of the day.</p>	Session 11 (2 Hours)

No	Content	Description	Self-emotional Regulation Ability	Learning Activities	No. of Session and Hours
12	Cope with life's unexpected misfortunes, stress, and frustration	Give examples of life's unexpected misfortunes, stress, and frustration that trigger negative emotions in students and teach students how to deal with negative emotions and how to regulate their emotions.	<ul style="list-style-type: none"> - Students understand the causes of life's unexpected misfortunes, stress, and frustration and the negative emotions associated with them. - Situation modification, attentional deployment, and strategy choice will be utilized to address emotional regulation needs in examples. - Observers excel in summarizing and identifying group members' character strengths. 	<ul style="list-style-type: none"> - The instructor gives examples of life's unexpected misfortunes, stress, and frustration that tend to cause negative emotions, and presents group task. - Formation of supportive learning groups and division of labor for the session. - Collaboration and identification of strengths. Sharers actively share the application of useful strategies and observers give positive feedback. - Reporters share the group's positive findings and express gratitude. - The instructor gives growth and progress feedback and corrects the application of strategies based on student sharing. <p>Summarizes the key learning points of the day.</p>	Session 12 (2 Hours)

2.8 Learning Materials

To enhance students' self-emotional regulation ability, it is necessary to use a variety of learning materials to enhance students' self-emotional regulation ability.

2.8.1 Learning tools for enhancing students' self-emotional regulation ability.

2.8.2 Lesson plans (12 sets): Different lesson plans will be prepared according to the topics to be taught and learning activities, steps and materials will be described in each lesson.

2.8.3 Videos will also be used. Videos of dialogues and situations will be used to allow students to watch and understand the situations so that they can better understand the tasks.

2.9 Timeframe

The entire duration used for instructional model implementation was 28 hours (4 hours per week).

2.10 Lesson Plans

Lesson Plan 1

Topic: Introduction of learning goals and learning approaches and basic psychology knowledge

Level: Freshman year

Duration: Session 1, 2 hours

1. Lesson Objectives

At the end of this lesson, students will be able to:

1.1 Understand the basic theories of mental health education and the importance of self-emotional regulation

1.2 Understand the components of self-emotional regulation ability.

2. Self-emotional Regulation Ability

2.1 Students will be able to understand the importance of self-emotional regulation ability for mental health

2.2 Students will be able to understand the components of self-emotional regulation ability.

2.3 Students will be able to use situation modification to regulate emotions.

3. Content

3.1 Understanding the meaning and standards of mental health

3.2 Understanding the importance of self-emotional regulation and the factors that influence it

3.3 Understanding the components of self-emotional regulation ability

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/ Activities	
	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor explains to students the basic theories of psychology.</p> <p>The instructor explains to students the meaning and standards of mental health.</p> <p>The instructor explains to students the importance of self-emotional regulation and the factors that influence it.</p>	<p>The students listened carefully to the instructor and answered the questions she asked.</p> <p>They study the cases and learn about the components of self-emotional regulation ability.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
	<p>Task: Students work in groups of five to complete an emotion identification task based on the case: when you are studying and your classmates are constantly making noise, what emotions do you feel at this time? How to use situation modification to regulate your emotions?</p>	

Learning Instruction	Learning Instruction/ Activities	
	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of strategies based on student sharing. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better utilize situation modification in their next lesson.

5. Instructional Materials:

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and understanding of situation modification	Classroom observation record	-Students should understand the components of self-emotional regulation ability: situation modification, attentional deployment, and strategy choice. -Practice applying situation modification.

Lesson Plan 2

Topic: Psychological counseling for university students

Level: Freshman year

Duration: Session 2, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

- 1.1 Have a proper conception of psychological counseling.
- 1.2 Understand the meaning of attentional deployment.
- 1.3 Utilize attentional deployment to enhance self-emotional regulation.

2. Self-emotional Regulation Ability

- 2.1 Students understand that attentional deployment is effective for self-emotional regulation.
- 2.2 Students understand the timing of the application of attentional deployment.
- 2.3 Students use appropriate ways to deploy attention.
- 2.4 Students use attentional deployment to regulate self-negative emotions.

3. Content

Psychological counseling, attentional deployment

- 3.1 Applying psychological counseling correctly.
- 3.2 Using attentional deployment to regulate self-negative emotions.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor explains the basic concepts, functions, and routine processes of psychological counseling.</p> <p>The instructor explains the meaning and role of attention deployment.</p> <p>The instructor also explains the timing of the use of attentional deployment and the requirements for its application.</p> <p>The instructor shows a case study to the students.</p>	<p>The students listen carefully to the instructor and answer the questions she asks.</p> <p>They study case studies and learn the use of attentional deployment to regulate self-negative emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
	<p>Task: Students work in groups of five to reflect on emotional experiences and discuss based on the case study:</p> <ol style="list-style-type: none"> 1. How do I experience negative emotions when I have difficulty making friends at university? 2. How can I use attentional deployment to regulate self-emotion when I feel unhappy at university? 3. How can counseling help me? 	

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of attentional deployment based on student sharing. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better utilize attentional deployment in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and understanding of attentional deployment	Classroom observation record	-Students should understand the components of self-emotional regulation ability: situation modification, attentional deployment, and strategy choice. -Practice applying attentional deployment.

Lesson Plan 3

Topic: Adaptation to university life

Level: Freshman year

Duration: Session 1, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

1.1 Understand the challenges they may face when adapting to university life.

1.2 Choose positive strategies for regulating emotions.

2. Self-emotional Regulation Ability

2.1 Students understand that strategy choice is effective for self-emotional regulation.

2.2 Learn which strategies are positive and effective for regulating emotions.

2.3 Use strategy choice to regulate self-negative emotions.

3. Content

Adaptation to university life, strategy choice

3.1 Challenges in adapting to university life.

3.2 Using strategy choice to regulate self-emotion.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	The instructor uses cases to explain the challenges that students often face in adapting to university life.	The students listen carefully to the instructor and answer the questions she asks.

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
	<p>She emphasizes the key points to be taken care of by the students in adapting to the new environment.</p> <p>She explains the meaning and role of strategy choice.</p> <p>She also explains positive strategies and the requirements for applying strategy choice.</p>	<p>They analyze cases and learn the use of the use of strategy choice to regulate self-negative emotions.</p>
<p>Formation of supportive learning groups and division of labor (5 minutes)</p>	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
<p>Collaboration and identification of strengths (30 minutes)</p>	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
	<p>Task: Students work in groups of five to brainstorm and discuss the following case study: What positive strategies can I use to regulate self-emotion after I don't adapt to university life and develop negative emotions?</p>	

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application strategy choice practices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better utilize strategy choices in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and understanding of strategy choice	Classroom observation record	-Students should understand the components of self-emotional regulation ability: situation modification, attentional deployment, and strategy choice. -Practice applying strategy choice.

Lesson Plan 4

Topic: Adaptation to academic study and teaching methods

Level: Freshman year

Duration: Session 2, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

1.1 Understand the challenges they may face when adapting to academic study and teaching methods.

1.2 Use situation modification, attentional deployment, and strategy choice to regulate self-emotion.

2. Self-emotional Regulation Ability

2.1 Students use situation modification to regulate their self-emotions following difficulties in adapting to academic study and teaching methods.

2.2 Students use attentional deployment to regulate self-emotions after having difficulty adapting to academic study and teaching methods.

2.3 Students use strategy choice to regulate self-emotions in response to difficulties in adapting to academic study and teaching methods.

3. Content

Adaptation to academic study and teaching methods, self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Concept explanation and	The instructor uses cases to explain the challenges that	The students listen carefully to the instructor

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
task publication (35 minutes)	students often face in adapting to academic study and teaching methods. She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.	and answer the questions she asks. They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.
Formation of supportive learning groups and division of labor (5 minutes)	The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.	
Collaboration and identification of strengths (30 minutes)	The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group. She will observe students' performance during collaborative group learning and take notes.	Students divide up the work as required and work diligently to complete the task. They work together to create a collaborative, positive learning atmosphere.
	Task: Students work in groups of five and have a group discussion based on the case: How to apply situation modification, attentional deployment, and strategic choices to regulate self-emotion after I have developed negative emotion from not adapting to the university's teaching style and not having the appropriate method of learning.	
Sharing and gratitude	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
expression (30 minutes)		positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 5

Topic: Interpersonal interaction theory

Level: Freshman year

Duration: Session 1, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

- 1.1 Understand theories related to interpersonal interaction.
- 1.2 Apply interpersonal interaction skills.
- 1.3 Analyze the reasons why interpersonal difficulties trigger negative emotions.
- 1.4 Regulate self-emotions caused by difficulties in interpersonal interaction.

2. Self-emotional Regulation Ability

- 2.1 Students use situation modification to regulate their self-emotions due to interpersonal difficulties.
- 2.2 Students use attentional deployment to regulate self-emotions due to interpersonal difficulties.
- 2.3 Students use strategy choice to regulate self-emotions due to interpersonal difficulties.

3. Content

Interpersonal interaction, self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor explains the theories related to interpersonal interaction.</p> <p>She uses cases to explain the challenges that students often face when it comes to interpersonal interaction.</p> <p>She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.</p>	<p>The students listen carefully to the instructor and answer the questions she asks.</p> <p>They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
<p>Task: Working in groups of five, students will have a group discussion based on the case study:</p> <p>1. How can I use situation modification, attentional deployment, and strategic choices to regulate self-emotion after I have experienced negative emotions due to difficulties interacting with my family or friends.</p>		

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
	2.Students conduct a Round Table discussion on effective ways to enhance interpersonal expressions (words, expressions, actions, etc.).	
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 6

Topic: Socialize with roommates/ strangers

Level: Freshman year

Duration: Session 2, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

1.1 Analyze and summarize common problems of socializing with roommates/strangers for university students.

1.2 Regulate self-emotions caused by difficulties in socializing with roommates/strangers.

2. Self-emotional Regulation Ability

2.1 Students use situation modification to regulate self-emotions caused by difficulties in socializing with roommates/strangers.

2.2 Students use attentional deployment to regulate self-emotions caused by difficulties in socializing with roommates/strangers.

2.3 Students use strategy choice to regulate self-emotions caused by difficulties in socializing with roommates/strangers.

3. Content

Socialize with roommates/ strangers, self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor uses cases to explain the challenges students often face when socializing with roommates/strangers.</p> <p>She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.</p>	<p>The students listen carefully to the instructor and answer the questions she asks.</p> <p>They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
<p>Task: Students work in groups of five to role-play based on the case study: How can I use situation modification, attentional deployment, and strategic choices to regulate self-emotion after I have experienced negative emotions due to difficulties interacting with my roommate or others.</p>		

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 7

Topic: University students' expression of friendships and love

Level: Freshman year

Duration: Session 1, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

1.1 Analyze and summarize common problems university students have in dealing with friendships and love.

1.2 Regulate self-emotions arising from friendships and love.

2. Self-emotional Regulation Ability

2.1 Students use situation modification to regulate self-emotions arising from friendship and love.

2.2 Students use attentional deployment to regulate self-emotions arising from friendship and love.

2.3 Students use strategy choice to regulate self-emotions arising from friendship and love.

3. Content

University students' expression of friendships and love, self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor uses cases to explain the challenges students often face when they confuse love and friendship.</p> <p>She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.</p>	<p>The students listen carefully to the instructor and answer the questions she asks.</p> <p>They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
<p>Task: Students work in groups of five to present a scenario based on a case study: How can I use situational regulation, attentional deployment, and strategic choice to regulate self-emotion when I am disturbed by a breakup?</p>		

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 8

Topic: Psychology of university students' social and sexual interactions

Level: Freshman year

Duration: Session 2, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

1.1 Understand the challenges they may face as a result of feeling distressed about sex.

1.2 Using situation modification, attentional deployment, and strategy choice to regulate self-emotion.

2. Self-emotional Regulation Ability

2.1 Students use situation modification to regulate their self-emotions after becoming confused about sex.

2.2 Students use attentional deployment to regulate self-emotions after becoming confused about sex.

2.3 Students use strategy choice to regulate self-emotions after becoming confused about sex.

3. Content

Psychology of university students' social and sexual interactions, self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Concept explanation and	The instructor uses cases to explain the challenges students	The students listen carefully to the instructor

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
task publication (35 minutes)	often face when they are confused about sex. She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.	and answer the questions she asks. They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.
Formation of supportive learning groups and division of labor (5 minutes)	The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.	
Collaboration and identification of strengths (30 minutes)	The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group. She will observe students' performance during collaborative group learning and take notes.	Students divide up the work as required and work diligently to complete the task. They work together to create a collaborative, positive learning atmosphere.
	Task: Working in groups of five, students will conduct a Round Table discussion on proper sexuality. Students will have a group discussion based on the case study: How can I use situation modification, attentional deployment, and strategic choices to regulate self-emotion when I am disturbed by my sexuality and my partner's differences?	
Sharing and gratitude	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
expression (30 minutes)		regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 9

Topic: Analyze your personality traits and understand common self-awareness biases

Level: Freshman year

Duration: Session 1, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

- 1.1 Understand the concept of self-awareness.
- 1.2 Summarize their personality traits.
- 1.3 Regulate self-emotions caused by self-awareness bias.

2. Self-emotional Regulation Ability

- 2.1 Students use situation modification to regulate self-emotions caused by self-awareness bias.
- 2.2 Students use attentional deployment to regulate self-emotions caused by self-awareness bias.
- 2.3 Students use strategy choice to regulate self-emotions caused by self-awareness bias.

3. Content

The concept of self-awareness, summarize their personality traits, and self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor explains the concept of self-awareness, guides students to summarize their personality traits, and incorporates cases to illustrate self-awareness bias among university students. She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.</p>	<p>The students listen carefully to the instructor and answer the questions she asks. They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group. She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task. They work together to create a collaborative, positive learning atmosphere.</p>
<p>Task: In groups of five, students reflect on and share their personality traits and negative emotions associated with self-awareness bias and share examples of how they can use situational regulation, attentional deployment, and strategic choices to regulate their self-emotions when they are struggling because of self-awareness bias.</p>		

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 10

Topic: Discover personal strengths and build self-confidence

Level: Freshman year

Duration: Session 2, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

- 1.1 Realize the problems caused by low self-confidence.
- 1.2 Regulate self-emotions caused by low self-confidence.
- 1.3 Discover personal strengths.

2. Self-emotional Regulation Ability

- 2.1 Students use situation modification to regulate self-emotions due to low self-confidence.
- 2.2 Students use attentional deployment to regulate self-emotions due to low self-confidence.
- 2.3 Students use strategy choice to regulate self-emotions due to low self-confidence.

3. Content

Discover personal strengths and build self-confidence, and self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	<p>The instructor uses cases to explain the challenges students often face when they have low self-confidence.</p> <p>She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.</p>	<p>The students listen carefully to the instructor and answer the questions she asks.</p> <p>They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
<p>Task: Working in groups of five, students reflect and share self-awareness biases such as inferiority and conceit: How can I use situation modification, attentional deployment, and strategic choices to regulate self-emotion after I have become distressed by inferiority and self-denial?</p>		

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 11

Topic: Put life and death in perspective, cherish life

Level: Freshman year

Duration: Session 1, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

- 1.1 Understand the correct outlook on life and death.
- 1.2 Cherish life and treasure life.
- 1.3 Using situation modification, attentional deployment, and strategy choice to regulate self-emotion.

2. Self-emotional Regulation Ability

- 2.1 Students use situation modification to regulate self-emotions f after they have lost hope in life.
- 2.2 Students use attentional deployment to regulate self-emotions after they have lost hope in life.
- 2.3 Students use strategy choice to regulate self-emotions after they have lost hope in life.

3. Content

Put life and death in perspective, cherish life, and self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Concept explanation and task publication (35 minutes)	The instructor uses cases to explain the challenges students often face when they lose hope in life.	The students listen carefully to the instructor and answer the questions she asks.

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
	She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.	They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.
Formation of supportive learning groups and division of labor (5 minutes)	The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.	
Collaboration and identification of strengths (30 minutes)	The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group. She will observe students' performance during collaborative group learning and take notes.	Students divide up the work as required and work diligently to complete the task. They work together to create a collaborative, positive learning atmosphere.
	Task: Working in groups of five, students will conduct a Round Table discussion on the correct outlook on life and life values: How can I use situation modification, attentional deployment, and strategic choices to regulate self-emotion when I have lost hope for the future or when I have experienced a traumatic event?	
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.

Learning Instruction	Learning Instruction/Activities	
	Instructors' Activities	Students' Activities
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotion in their next lesson.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

Lesson Plan 12

Topic: Cope with life's unexpected misfortunes, stress and frustration

Level: Freshman year

Duration: Session 2, 2 hours

1. Lesson Objectives

At the end of this lesson, students should be able to:

- 1.1 Understand the psychological trauma of life's unexpected misfortunes.
- 1.2 Analyze and summarize sources of stress and frustration among university students.
- 1.3 Regulate self-emotions resulting from unexpected misfortunes, stress, and frustration.

2. Self-emotional Regulation Ability

- 2.1 Students use situation modification to regulate self-emotions due to stress.
- 2.2 Students use attentional deployment to regulate self-emotions due to stress.
- 2.3 Students use strategy choice to regulate self-emotions due to stress.

3. Content

Sources of stress, stress reduction techniques, self-emotional regulation.

4. Learning Instruction/Activities

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Concept explanation and	The instructor uses case studies to explain the psychological trauma that will be brought about by	The students listen carefully to the

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
task publication (35 minutes)	<p>unexpected misfortunes in life, as well as the challenges that will be brought about by stress and frustration.</p> <p>She explains the integrated use of situation modification, attentional deployment, and strategy choice to regulate self-emotion.</p>	<p>instructor and answer the questions she asks.</p> <p>They analyze cases and learn the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.</p>
Formation of supportive learning groups and division of labor (5 minutes)	<p>The instructor groups the students into groups of about 5 students each. Each group member is assigned a specific role in the collaborative learning session, including group leader, recorder, sharer, observer, and reporter.</p>	
Collaboration and identification of strengths (30 minutes)	<p>The instructor instructs the students to divide the work for this round. In groups of five clarify the tasks for each person in the round and assign tasks to each group.</p> <p>She will observe students' performance during collaborative group learning and take notes.</p>	<p>Students divide up the work as required and work diligently to complete the task.</p> <p>They work together to create a collaborative, positive learning atmosphere.</p>
<p>Task: Working in groups of five, students reflect and share on sources of stress and frustration as well as negative emotions associated with stress and frustration: How can I use situation modification, attentional deployment, and strategic choices to regulate self-emotion when I am distressed by stressful situations or frustrated by setbacks?</p>		

Learning Instruction	Learning Instruction/Activities	
Stages	Instructors' Activities	Students' Activities
Sharing and gratitude expression (30 minutes)	The instructor listens to the students and takes notes.	Reporters share the group's self-emotional regulation practices and positive findings and express gratitude.
Growth and progress feedback (20 minutes)	The instructor summarizes the group's performance, gives growth and progress feedback, focuses on encouragement, and corrects the application of situation modification, attentional deployment, and strategic choices to regulate self-emotions. The instructor summarizes the key learning points of the day.	Students listen attentively so that they can better integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

5. Instructional Materials

5.1 Mental health education textbook for university students, cases related to the content to be taught

5.2 PowerPoint presentations with the content to be taught

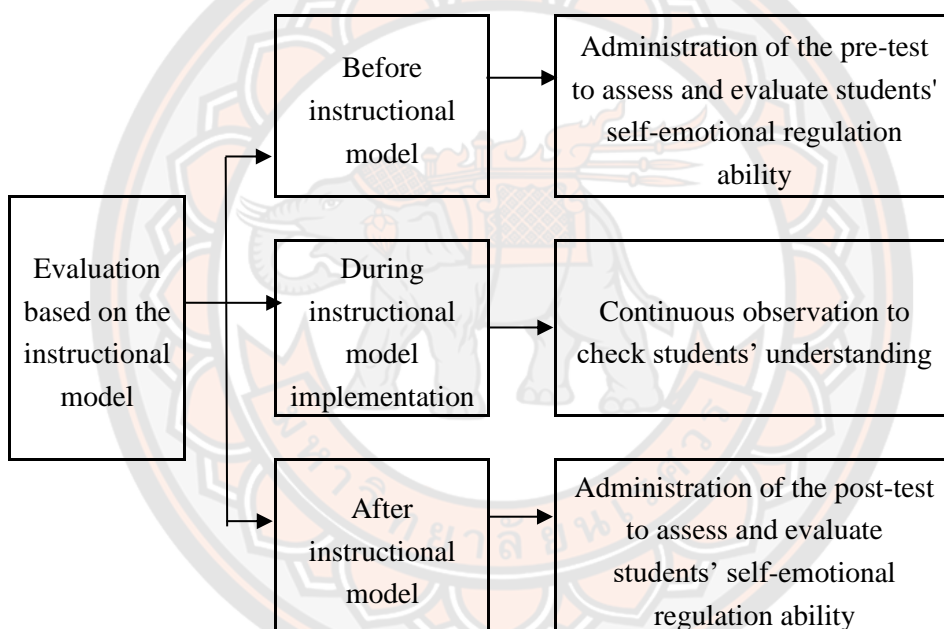
5.3 Projector and computer for viewing the relevant PowerPoint

6. Learning Assessment

Assessment	Assessment Tools	Learning Outcome
Assessing students' collaborative activities and integrated use of self-emotional regulation methods.	Classroom observation record	-Students need to be able to integrate the use of situation modification, attentional deployment, and strategic choices to regulate self-emotions.

2.11 Assessment of self-emotional regulation ability

This innovation aims to enhance students' self-emotional regulation ability. After learning using an instructional model based on positive psychology theory and collaborative learning approach, self-emotional regulation ability should be assessed in an authentic situation. Students' self-emotional regulation ability will be assessed based on The Situational Judgment Test. Real-life situations will be used to assess their ability. Students should be allowed to prepare and share on the given topic and a class reporting session should be set up for the students.



From the figure above, the evaluation of students' self-emotional regulation ability based on the positive psychology theory and collaborative instructional model is divided into three phases: before, during, and after the implementation of the instructional model.

Before the implementation of the instructional model, a pre-test is administered to assess students' self-emotional regulation ability. After the pre-test, their scores are recorded.

During the implementation of the instructional model, ongoing assessments are conducted to evaluate students' level of comprehension, and follow-ups are done to ensure that the set goals are met.

After the implementation of the instructional model, a post-test is administered to see if the students' self-emotional regulation ability has enhanced as a result of learning the instructional model. The post-test has the same questions as the pre-test to do a t-test analysis with the test results to compare the differences in the students' self-emotional regulation ability before and after learning the positive psychology theory and collaborative instructional model. When the scores on the post-test are higher than the scores on the pre-test, it will indicate an enhancement in the students' self-emotional regulation ability after learning with the instructional model.

Based on The Situational Judgment Tests (SJTs) Scoring method, this study uses both Theoretical Scoring (Bergman et al, 2006) and Expert-Based scoring (Bergman et al, 2006). Theory can be used to identify the best and worst options in the test. Experts are invited to check answers based on the responses of individuals with substantial knowledge about the topic.

In assessing the students' self-emotional regulation, the researcher designed ten situations in the questionnaire with three questions under each situation to assess the students' application of situation modification, attentional deployment, and strategy choice. All thirty questions were single choice. Students will select the best or worst option as required and will be awarded one point for satisfying the requirements. The rating scale will be referenced in the table below:

Rating Instructions for The Situational Judgment Test of Self-emotional Regulation Ability

	The best options	The worst options
Situation modification	Be able to use problem-focused coping well, and reduce the negative impact of the situation on emotions	Not coping, unable to reduce the negative impact of the situation on emotions
Attentional deployment	Be able to focus attention on the non-emotional aspects of a situation, or divert attention away from the immediate situation altogether, to effectively regulate negative emotions	Continuously focus attention on the person or event causing the negative emotions and fail to regulate the negative emotions
Strategy choice	Be able to choose positive regulation strategies that positively influence physiological, experiential, or behavioral responses to effectively regulate negative emotions	Chooses negative regulation strategies that have no influence on physiological, experiential, or behavioral responses and fail to regulate the negative emotions

One point will be awarded to the student who selects the best or worst option correctly as required by the question.

2.12 Evaluation criterion

The evaluation criterion will be divided into the following parts:

2.12.1 Conducting a comparison of students' self-emotional regulation between pre-test and post-test results utilizing a dependent t-test

2.12.2 Classroom Observation Records

The Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability (Pre-tests) (Post-tests)

In this study, the results of the pre-test and post-test will be compared using the dependent t-test, so the questions and answers of the pre-test and post-test will be the same. The test is based on The Situational Judgment Test, which consists of ten situations, the content of which is following the lesson plan. Each situation has three questions that correspond to components of self-emotional regulation ability: situation modification, attentional deployment, and strategy choice. The option in bold type in the answer is the correct option for the question. Students who choose the correct option will gain a point.

The Situational Judgment Test of Self-Emotional Regulation Ability

1. The freshman Xiao Xi is having a hard time adjusting to the new environment in the south, facing issues like the hot weather and unfamiliar food, feeling overwhelmed, and experiencing insomnia.

Q1: What do you think is the most effective of the following situational choices for him to regulate his suppressed emotions?

A: Take a leave of absence and go home for a while.

B: Maintain the current situation and gradually adapt.

C: Drop out of school and reapply to a school near his home.

D: Look for restaurants near the university that sell food from his hometown to change the taste.

Q2: What is the most effective way for him to deploy his attention and regulate his emotions?

A: Listen to his favorite upbeat music.

B: Join some groups and make new friends.

C: Play games on the computer to pass the time.

D: Remind himself that every freshman experiences this discomfort.

Q3: Which strategy do you believe is the most positively effective for him to regulate his emotions?

A: Call parents and confide in them.

B: Complain to friends about the situation.

C: Skip classes and catch up on sleep in the dorm.

D: Seek advice from senior fellow townsmen or instructors to gain some experience.

2. Li Tao recently had a misunderstanding with others in his work club, and he felt very aggrieved by it.

Q1: What do you think is the least effective of the following situation modification for him to regulate his feelings of injustice?

A: Go back to the dorm.

B: Join other clubs to make new friends.

C: Leave the argument scene and go to the library to calm down alone.

D: Temporarily stop participating in club activities to avoid meeting people he doesn't like.

Q2: What is the least effective way for him to deploy his attention and regulate his emotions?

A: Go to bed.

B: Participate in sports that he enjoys.

C: Feel the flow by writing or drawing.

D: Try to continue with the work in the club.

Q3: Which strategy do you believe is the most positively effective for him to regulate his emotions?

A: Share experiences with online friends.

B: Wait for the other person to initiate communication.

C: Report the situation to the club's responsible instructor to resolve their conflict.

D: Communicate calmly with the other party, eliminating misunderstandings.

3. Xiaolu failed in the recent class committee election. She felt very sad.

Q1. What do you think is the most effective of the following situation modification for her to regulate her sadness?

A: Go back to the dorm and read a book.

B: Stay in the classroom and remain silent.

C: Leave the classroom and take a walk around the campus.

D: Stay in the classroom and congratulate the successful candidates.

Q2: What is the most effective way for her to deploy her attention and regulate her emotions?

A: Stop thinking about the election.

B: Think about the reasons for failure.

C: Combine interests and hobbies and do her favorite things.

D: Think of something good that happened recently and relive the good feelings.

Q3: Which strategy do you believe is the least positively effective for her to regulate her emotions?

A: Go climbing.

B: Share her feelings with friends.

C: Write down her strengths and summarize others' successes.

D: Learn about the election of student representatives in the university and strive for new opportunities.

4. The results of the final exam came out and Jun failed two subjects. He called his mom and mentioned not passing the exams but was scolded by her and was in a bad mood.

Q1. What do you think is the least effective of the following situation modification for him to regulate his bitterness?

A: Hang up the phone.

B: Get outdoors and relax.

C: Go home but don't argue.

D: Go home and explain the reasons to his mom.

Q2: What is the most effective way for him to deploy his attention and regulate his emotions?

A: Watch short videos on the phone.

B: Go to the pet store to see his favorite animals.

C: Recall the questions he might have made mistakes on the test.

D: Attend a class reunion and talk about happy experiences.

Q3: Which strategy do you believe is the most positively effective for him to regulate his emotions?

A: Temporarily stop studying.

B: Share his feelings with his dad.

C: Consult the instructor and create a study plan.

D: Ask classmates who passed the exam for advice.

5. Zhao comes from a rural area and has a poor family background. From the first day of college, he has a feeling of being inferior to the other students, and he believes that his academic performance is average and his ability in all aspects is ordinary, and he is inferior in every aspect.

Q1. What do you think is the most effective of the following situation modification for him to regulate his low self-esteem?

A: Stay away from crowds and keep to himself.

B: Accept the current situation and gradually make changes.

C: Join growth groups that are helpful for academic studies.

D: Participate in social activities through extracurricular activities.

Q2: What is the most effective way for him to deploy his attention and regulate his emotions?

A: Develop hobbies.

B: Think about his flaws.

C: Set personal growth goals and make plans.

D: Watch inspirational movies like "Forrest Gump".

Q3: Which strategy do you believe is the most positively effective for him to regulate his emotions?

A: Do meditation to relax.

B: Accept the fact that he is inferior to his classmates.

C: Seek advice from senior students and strive for improvement.

D: Participate in volunteer activities and gain a sense of value while helping others.

6. Ming has been in love with her boyfriend for three years. Recently, her boyfriend suddenly broke up with her because he was in love with someone else. She could not accept this reality and was in a state of pain, disappointment, and helplessness, feeling that her life had lost all meaning and was even considering suicide.

Q1. What do you think is the least effective of the following situation modification for her to regulate her depression?

A: Block her ex-boyfriend and cease contact.

B: Find a quiet place to be alone, cry, and release emotions.

C: Look at photos of her when she was in love and reminisce.

D: Seek help from a doctor or a psychological counselling service. For severe depression, she needs medical help.

Q2: What is the least effective way for her to deploy her attention and regulate her emotions?

A: Learn a new instrument.

B: Watch movies featuring handsome actors.

C: Take a short trip with friends accompanying her.

D: Analysing why her boyfriend broke up with her.

Q3: Which strategy do you believe is the most positively effective for her to regulate her emotions?

A: Keep a diary.

B: To find her ex-boyfriend.

C: Develop the habit of exercise.

D: Participate in social activities to make new friends.

7. In the last two weeks, Xiao Wang found that her roommate Xiaofang took her things without her consent, said bad things about her behind her back, and refused to admit it when she was found out. Xiao Wang is now angry when she sees Xiaofang and can't restrain herself from wanting to hit Xiaofang.

Q1. What do you think is the most effective of the following situation modification for her to regulate her anger?

A: Propose to change dorms.

B: Go shopping with friends.

C: Reduce communication with Xiao Fang in the dorm.

D: Attend self-study sessions and return to the dorm close to the time of locking.

Q2: What is the most effective way for her to deploy her attention and regulate her emotions?

A: Screaming at the sky.

B: Focus on completing her tasks.

C: Go to a gym and hit a punch bag.

D: Gather evidence that she was vilified by Xiaofang.

Q3: Which strategy do you believe is the most positively effective for her to regulate her emotions?

A: Have their instructor mediate.

B: Breathe deeply when angry.

C: Expose Xiao Fang's actions to other classmates.

D: Try to have an open and honest conversation with Xiao Fang. In the conversation, expresses her feelings, emphasizes her boundaries, and demands respect.

8. Wen's family is very well off, and she usually speaks without paying attention to the feelings of her classmates. She is self-centered and tends to say things that others don't like to hear. Slowly her roommates began to alienate her, and she felt sorry when she realized she had no friends.

Q1. What do you think is the most effective of the following situation modification for her to regulate her feelings of regret?

A: Objectively evaluate her strengths and weaknesses.

B: Change her way of speaking and learn empathy.

C: Actively greet classmates in the classroom and dorm.

D: Reflect on her behavior alone and consider the harm she has caused to others.

Q2: What is the most effective way for her to deploy her attention and regulate her emotions?

A: Attend a party.

B: Participate in sports that require a partner.

C: Personally, organize and package some flowers as a gift.

D: Smell the scent of essential oils and meditate for relaxation.

Q3: Which strategy do you believe is the most positively effective for her to regulate her emotions?

A: Keep everything inside and bear it alone.

B: Do something useful for classmates to gradually close the distance.

C: Ask the instructor or class leader to mediate, and humbly accept others' opinions.

D: Sincerely apologize to classmates she has hurt, seeking understanding.

9. Zheng is a fourth-year university student who has frequently hit a wall in his search for a job. Before a new job fair is held, he feels anxious and thinks he will have a hard time finding a job. Insomnia and irregular eating patterns have occurred.

Q1: What do you think is the most effective of the following situation modification for her to regulate her anxiety?

A: Not changing the status quo.

B: Do not participate in the next job fair.

C: Gather information and prepare before attending the job fair.

D: Arrive early at the job fair venue to familiarize herself with the environment.

Q2: What is the most effective way for her to deploy her attention and regulate her emotions?

A: Cut the job fair talk.

B: Lie down and do nothing for a couple of days.

C: Actively engage in learning to improve herself.

D: Practice diaphragmatic breathing and meditate to relax.

Q3: Which strategy do you believe is the most positively effective for her to regulate her emotions?

A: Do career planning.

B: Adjust the diet and sleep.

C: Maintain the current situation.

D: Seek advice from graduates on how to prepare for job fairs.

10. Xing is having a hard time preparing her graduation thesis. She encounters difficulties in data collection, and she doesn't want to communicate with her advisor or get help from her classmates. She feels worthless and has no hope of graduating.

Q1: What do you think is the most effective of the following situation modification for her to regulate frustration?

A: Maintain the current situation.

B: Spend more time on the thesis writing.

C: Seek help from a counselor or psychiatrist.

D: Break the communication barrier and re-establish contact with instructors and classmates.

Q2: What is the most effective way for her to deploy her attention and regulate her emotions?

A: Do nothing.

B: Read a book or draw.

C: Query information from the Internet.

D: Take a break from writing the paper and relax.

Q3: Which strategy do you believe is the most positively effective for her to regulate her emotions?

A: Apply for a delayed graduation.

B: Have the instructor intervene to help herself.

C: Ask classmates for dinner, and ask for information about writing a paper.

D: Contact the supervisor truthfully, solicit the supervisor's advice, and modify the research method to obtain data.

**Item Objective Congruent (IOC) for the Situational Judgment Multiple
Choice Test of Self-emotional Regulation Ability**

Item Objective Congruent (IOC) for the Situational Judgment Multiple Choice Test of Self-emotional Regulation Ability								
Evaluated Items		Expert					IOC	Inter preta tion
		1	2	3	4	5		
1. The freshman Xiao Xi is having a hard time adjusting to the new environment in the south, facing issues like the hot weather and unfamiliar food, feeling overwhelmed, and experiencing insomnia.								
Q1	What do you think is the most effective of the following situational choices for him to regulate his suppressed emotions? A: Take a leave of absence and go home for a while. B: Maintain the current situation and gradually adapt. C: Drop out of school and reapply to a school near his home. D: Look for restaurants near the university that sell food from his hometown to change the taste.	1	1	1	0	1	0.8	Good
Q2	What is the most effective way for him to deploy his attention and regulate his emotions? A: Listen to his favorite upbeat music. B: Join some groups and make new friends. C: Play games on the computer to pass the time. D: Remind himself that every freshman experiences this discomfort.	1	1	1	0	1	0.8	Good
Q3	Which strategy do you believe is the most positively effective for him to regulate his emotions? A: Call parents and confide in them. B: Complain to friends about the situation. C: Skip classes and catch up on sleep in the dorm. D: Seek advice from senior fellow townsmen or instructors to gain some experience.	1	1	1	0	1	0.8	Good

Evaluated Items		Expert					IOC	Interpretation
		1	2	3	4	5		
2. Li Tao recently had a misunderstanding with others in his work club, and he felt very aggrieved by it.								
Q1	<p>What do you think is the least effective of the following situation modification for him to regulate his feelings of injustice?</p> <p>A: Go back to the dorm.</p> <p>B: Join other clubs to make new friends.</p> <p>C: Leave the argument scene and go to the library to calm down alone.</p> <p>D: Temporarily stop participating in club activities to avoid meeting people he doesn't like.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the least effective way for him to deploy his attention and regulate his emotions?</p> <p>A: Go to bed.</p> <p>B: Participate in sports that he enjoys.</p> <p>C: Feel the flow by writing or drawing.</p> <p>D: Try to continue with the work in the club.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for him to regulate his emotions?</p> <p>A: Share experiences with online friends.</p> <p>B: Wait for the other person to initiate communication.</p> <p>C: Report the situation to the club's responsible instructor to resolve their conflict.</p> <p>D: Communicate calmly with the other party, eliminating misunderstandings.</p>	1	1	1	0	1	0.8	Good
3. Xiaolu failed in the recent class committee election. She felt very sad.								
Q1	<p>What do you think is the most effective of the following situation modification for her to regulate her sadness?</p> <p>A: Go back to the dorm and read a book.</p> <p>B: Stay in the classroom and remain silent.</p> <p>C: Leave the classroom and take a walk around the campus.</p> <p>D: Stay in the classroom and congratulate the successful candidates.</p>	1	1	1	0	1	0.8	Good

Evaluated Items		Expert					IOC	Interpretation
		1	2	3	4	5		
Q2	<p>What is the most effective way for her to deploy her attention and regulate her emotions?</p> <p>A: Stop thinking about the election.</p> <p>B: Think about the reasons for failure.</p> <p>C: Combine interests and hobbies and do her favourite things.</p> <p>D: Think of something good that happened recently and relive the good feelings.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the least positively effective for her to regulate her emotions?</p> <p>A: Go climbing.</p> <p>B: Share her feelings with friends.</p> <p>C: Write down her strengths and summarize others' successes.</p> <p>D: Learn about the election of student representatives in the university and strive for new opportunities.</p>	1	1	1	0	1	0.8	Good
<p>4. The results of the final exam came out and Jun failed two subjects. He called his mom and mentioned not passing the exams but was scolded by her and was in a bad mood.</p>								
Q1	<p>What do you think is the least effective of the following situation modification for him to regulate his bitterness?</p> <p>A: Hang up the phone.</p> <p>B: Get outdoors and relax.</p> <p>C: Go home but don't argue.</p> <p>D: Go home and explain the reasons to his mom.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the most effective way for him to deploy his attention and regulate his emotions?</p> <p>A: Watch short videos on the phone.</p> <p>B: Go to the pet store to see his favoured animals.</p> <p>C: Recall the questions he might have made mistakes on the test.</p> <p>D: Attend a class reunion and talk about happy experiences.</p>	1	1	1	0	1	0.8	Good

Evaluated Items		Expert					IOC	Interpretation
		1	2	3	4	5		
Q3	<p>Which strategy do you believe is the most positively effective for him to regulate his emotions?</p> <p>A: Temporarily stop studying.</p> <p>B: Share his feelings with his dad.</p> <p>C: Consult the instructor and create a study plan.</p> <p>D: Ask classmates who passed the exam for advice.</p>	1	1	1	0	1	0.8	Good
<p>5. Zhao comes from a rural area and has a poor family background. From the first day of college, he has a feeling of being inferior to the other students, and he believes that his academic performance is average and his ability in all aspects is ordinary, and he is inferior in every aspect.</p>								
Q1	<p>What do you think is the most effective of the following situation modification for him to regulate his low self-esteem?</p> <p>A: Stay away from crowds and keep to himself.</p> <p>B: Accept the current situation and gradually make changes.</p> <p>C: Join growth groups that are helpful for academic studies.</p> <p>D: Participate in social activities through extracurricular activities.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the most effective way for him to deploy his attention and regulate his emotions?</p> <p>A: Develop hobbies.</p> <p>B: Think about his flaws.</p> <p>C: Set personal growth goals and make plans.</p> <p>D: Watch inspirational movies like "Forrest Gump".</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for him to regulate his emotions?</p> <p>A: Do meditation to relax.</p> <p>B: Accept the fact that he is inferior to his classmates.</p> <p>C: Seek advice from senior students and strive for improvement.</p> <p>D: Participate in volunteer activities and gain a sense of value while helping others.</p>	1	1	1	0	1	0.8	Good

Evaluated Items	Expert					IOC	Interpretation	
	1	2	3	4	5			
<p>6. Ming has been in love with her boyfriend for three years. Recently, her boyfriend suddenly broke up with her because he was in love with someone else. She could not accept this reality and was in a state of pain, disappointment, and helplessness, feeling that her life had lost all meaning and was even considering suicide.</p>								
Q1	<p>What do you think is the least effective of the following situation modification for her to regulate her depression?</p> <p>A: Block her ex-boyfriend and cease contact.</p> <p>B: Find a quiet place to be alone, cry, and release emotions.</p> <p>C: Look at photos of her when she was in love and reminisce.</p> <p>D: Seek help from a doctor or a psychological counselling service. For severe depression, she needs medical help.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the least effective way for her to deploy her attention and regulate her emotions?</p> <p>A: Learn a new instrument.</p> <p>B: Watch movies featuring handsome actors.</p> <p>C: Take a short trip with friends accompanying her.</p> <p>D: Analysing why her boyfriend broke up with her.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for her to regulate her emotions?</p> <p>A: Keep a diary.</p> <p>B: To find her ex-boyfriend.</p> <p>C: Develop the habit of exercise.</p> <p>D: Participate in social activities to make new friends.</p>	1	1	1	0	1	0.8	Good

Evaluated Items	Expert					IOC	Interpretation	
	1	2	3	4	5			
<p>7. In the last two weeks, Xiao Wang found that her roommate Xiaofang took her things without her consent, said bad things about her behind her back, and refused to admit it when she was found out. Xiao Wang is now angry when she sees Xiaofang and can't restrain herself from wanting to hit Xiaofang.</p>								
Q1	<p>What do you think is the most effective of the following situation modification for her to regulate her anger?</p> <p>A: Propose to change dorms.</p> <p>B: Go shopping with friends.</p> <p>C: Reduce communication with Xiao Fang in the dorm.</p> <p>D: Attend self-study sessions and return to the dorm close to the time of locking.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the most effective way for her to deploy her attention and regulate her emotions?</p> <p>A: Screaming at the sky.</p> <p>B: Focus on completing her tasks.</p> <p>C: Go to a gym and hit a punch bag.</p> <p>D: Gather evidence that she was vilified by Xiaofang.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for her to regulate her emotions?</p> <p>A: Have their instructor mediate.</p> <p>B: Breathe deeply when angry.</p> <p>C: Expose Xiao Fang's actions to other classmates.</p> <p>D: Try to have an open and honest conversation with Xiao Fang. In the conversation, expresses her feelings, emphasizes her boundaries, and demands respect.</p>	1	1	1	0	1	0.8	Good

Evaluated Items	Expert					IOC	Interpretation	
	1	2	3	4	5			
<p>8. Wen's family is very well off, and she usually speaks without paying attention to the feelings of her classmates. She is self-centered and tends to say things that others don't like to hear. Slowly her roommates began to alienate her, and she felt sorry when she realized she had no friends.</p>								
Q1	<p>What do you think is the most effective of the following situation modification for her to regulate her feelings of regret?</p> <p>A: Objectively evaluate her strengths and weaknesses.</p> <p>B: Change her way of speaking and learn empathy.</p> <p>C: Actively greet classmates in the classroom and dorm.</p> <p>D: Reflect on her behaviour alone and consider the harm she has caused to others.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the most effective way for her to deploy her attention and regulate her emotions?</p> <p>A: Attend a party.</p> <p>B: Participate in sports that require a partner.</p> <p>C: Personally, organize and package some flowers as a gift.</p> <p>D: Smell the scent of essential oils and meditate for relaxation.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for her to regulate her emotions?</p> <p>A: Keep everything inside and bear it alone.</p> <p>B: Do something useful for classmates to gradually close the distance.</p> <p>C: Ask the instructor or class leader to mediate, and humbly accept others' opinions.</p> <p>D: Sincerely apologize to classmates she has hurt, seeking understanding.</p>	1	1	1	0	1	0.8	Good

Evaluated Items	Expert					IOC	Interpretation	
	1	2	3	4	5			
<p>9. Zheng is a fourth-year university student who has frequently hit a wall in his search for a job. Before a new job fair is held, he feels anxious and thinks he will have a hard time finding a job. Insomnia and irregular eating patterns have occurred.</p>								
Q1	<p>What do you think is the most effective of the following situation modification for her to regulate her anxiety?</p> <p>A: Not changing the status quo.</p> <p>B: Do not participate in the next job fair.</p> <p>C: Gather information and prepare before attending the job fair.</p> <p>D: Arrive early at the job fair venue to familiarize herself with the environment.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the most effective way for her to deploy her attention and regulate her emotions?</p> <p>A: Cut the job fair talk.</p> <p>B: Lie down and do nothing for a couple of days.</p> <p>C: Actively engage in learning to improve herself.</p> <p>D: Practice diaphragmatic breathing and meditate to relax.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for her to regulate her emotions?</p> <p>A: Do career planning.</p> <p>B: Adjust the diet and sleep.</p> <p>C: Maintain the current situation.</p> <p>D: Seek advice from graduates on how to prepare for job fairs.</p>	1	1	1	0	1	0.8	Good

Evaluated Items		Expert					IOC	Interpretation
		1	2	3	4	5		
<p>10. Xing is having a hard time preparing her graduation thesis. She encounters difficulties in data collection, and she doesn't want to communicate with her advisor or get help from her classmates. She feels worthless and has no hope of graduating.</p>								
Q1	<p>What do you think is the most effective of the following situation modification for her to regulate frustration?</p> <p>A: Maintain the current situation.</p> <p>B: Spend more time on the thesis writing.</p> <p>C: Seek help from a counselor or psychiatrist.</p> <p>D: Break the communication barrier and re-establish contact with instructors and classmates.</p>	1	1	1	0	1	0.8	Good
Q2	<p>What is the most effective way for her to deploy her attention and regulate her emotions?</p> <p>A: Do nothing.</p> <p>B: Read a book or draw.</p> <p>C: Query information from the Internet.</p> <p>D: Take a break from writing the paper and relax.</p>	1	1	1	0	1	0.8	Good
Q3	<p>Which strategy do you believe is the most positively effective for her to regulate her emotions?</p> <p>A: Apply for a delayed graduation.</p> <p>B: Have the instructor intervene to help herself.</p> <p>C: Ask classmates for dinner and ask for information about writing a paper.</p> <p>D: Contact the supervisor truthfully, solicit the supervisor's advice, and modify the research method to obtain data.</p>		1	1	0	1	0.8	Good

Students' Satisfaction Questionnaire

The objective of this questionnaire is to seek out the level of students' satisfaction with the instructional model. The instructor will ask students to answer each statement by checking the box below:

1= Not at all satisfied, 2= Less satisfied, 3= Fairly satisfied, 4= Satisfied, 5= Highly satisfied

No.	Evaluated Items	Level of satisfaction				
		5	4	3	2	1
C						
1	The learning process is clear, fun, and easy to understand.					
2	The learning process allows me to learn in the classroom with my group members and the instructor.					
3	The learning process allows me to participate actively in the classroom.					
B. Learning content						
4	The learning content matches my needs and is interesting.					
5	I can apply what I've learned from the content in real-life situations.					
6	The learning content is presented clearly and understandably.					
C Learning activities						
7	The learning activities were innovative and fun, and I enjoyed having them in my classroom.					
8	Learning activities are at the appropriate level of difficulty. They are within the student's reach.					
9	Learning activities involved each student in practicing, collaborating, and actively supporting each other.					
10	Learning activities allowed each student to receive positive feedback from group members and the instructor.					
D. Learning atmosphere						
11	A positive classroom atmosphere enabled us to carry out our learning activities successfully.					

No.	Evaluated Items	Level of satisfaction				
		5	4	3	2	1
12	The positive and safe learning atmosphere allows us to speak freely in class.					
E. Instructional materials						
13	The instructional materials were easy to use and enhanced our self-emotional regulation ability.					
14	Instructional materials are combined with practical applications to help us translate our theoretical knowledge into practical skills.					
F. The role of the instructor						
15	The instructor provided us with guidance and assistance for the successful implementation of our learning activities.					
16	The instructor can create a positive and inclusive learning atmosphere in the classroom.					
G. Evaluation						
17	Different tasks used to evaluate self-emotional regulation ability were effective.					
18	The evaluation process provided us with the opportunity to practice regulating our emotions.					
H. Self-emotional regulation ability development						
19	My self-emotional regulation ability has been enhanced through learning with this instructional model.					
20	I learned new positive strategies for self-emotional regulation while working with my group members.					

Item Objective Congruence (IOC) for students' Satisfaction Questionnaire

No.	Evaluated Items	Expert					IOC	Interpretation
		1	2	3	4	5		
A. Learning process								
1	The learning process is clear, fun, and easy to understand.	1	1	1	1	1	1.00	Good
2	The learning process allows me to learn in the classroom with my group members and the instructor.	1	1	1	1	1	1.00	Good
3	The learning process allows me to participate actively in the classroom.	1	1	1	1	1	1.00	Good
B. Learning content								
4	The learning content matches my needs and is interesting.	1	1	1	1	1	1.00	Good
5	I can apply what I've learned from the content in real-life situations.	1	1	1	1	1	1.00	Good
6	The learning content is presented clearly and understandably.	1	1	1	1	1	1.00	Good
C. Learning activities								
7	The learning activities were innovative and fun, and I enjoyed having them in my classroom.	1	1	1	1	1	1.00	Good
8	Learning activities are at the appropriate level of difficulty. They are within the student's reach.	1	1	1	1	1	1.00	Good

No.	Evaluated Items	Expert					IOC	Interpretation
		1	2	3	4	5		
9	Learning activities involved each student in practicing, collaborating, and actively supporting each other.	1	1	1	1	1	1.00	Good
10	Learning activities allowed each student to receive positive feedback from group members and the instructor.	1	1	1	1	1	1.00	Good
D. Learning Atmosphere								
11	A positive classroom atmosphere enabled us to carry out our learning activities successfully.	1	1	1	1	1	1.00	Good
12	The positive and safe learning atmosphere allows us to speak freely in class.	1	1	1	1	1	1.00	Good
E. Instructional materials								
13	The instructional materials were easy to use and enhanced our self-emotional regulation ability.	1	1	1	1	1	1.00	Good
14	Instructional materials are combined with practical applications to help us translate our theoretical knowledge into practical skills.	1	1	1	1	1	1.00	Good
F. The role of the instructor								
15	The instructor provided us with guidance and assistance for the successful implementation of our learning activities.	1	1	1	1	1	1.00	Good
16	The instructor can create a positive and inclusive learning atmosphere in the classroom.	1	1	1	1	1	1.00	Good

No.	Evaluated Items	Expert					IOC	Interpretation
		1	2	3	4	5		
G. Evaluation								
17	Different tasks used to evaluate self-emotional regulation ability were effective.	1	1	1	1	1	1.00	Good
18	The evaluation process provided us with the opportunity to practice regulating our emotions.	1	1	1	1	1	1.00	Good
H. Self-emotional regulation ability development								
19	My self-emotional regulation ability has been enhanced through learning with this instructional model.	1	1	1	1	1	1.00	Good
20	I learned new positive strategies for self-emotional regulation while working with my group members.	1	1	1	1	1	1.00	Good

Pre-test Score				
Students' number	Rubrics			
	Situation modification (10)	Attentional deployment (10)	Strategy choice (10)	Total (30)
1	3	4	5	12
2	3	3	6	12
3	4	2	7	13
4	4	3	5	12
5	4	3	6	13
6	6	2	5	13
7	3	4	4	11
8	6	5	5	16
9	4	4	4	12
10	3	3	5	11
11	4	2	4	10
12	4	4	1	9
13	2	5	1	8
14	4	5	3	12
15	3	4	4	11
16	4	3	6	13
17	1	4	3	8
18	2	1	4	7
19	6	2	1	9
20	3	3	5	11

Students' number	Rubrics			
	Situation modification (10)	Attentional deployment (10)	Strategy choice (10)	Total (30)
21	2	2	3	7
22	2	3	2	7
23	2	3	5	10
24	2	3	2	7
25	3	3	3	9
26	3	2	1	6
27	7	7	8	22
28	3	2	1	6
29	3	4	1	8
30	4	3	4	11
31	2	1	3	6
32	5	5	7	17
33	2	2	3	7
34	4	3	6	13
35	4	2	5	11
36	7	7	7	21
37	8	5	3	16
38	7	3	6	16
39	3	6	7	16
40	3	3	4	10

Post-test Score				
Students' number	Rubrics			
	Situation modification (10)	Attentional deployment (10)	Strategy choice (10)	Total (30)
1	5	8	8	21
2	6	6	10	22
3	8	5	10	23
4	9	6	8	23
5	6	6	10	22
6	9	4	9	22
7	6	6	8	20
8	9	8	10	27
9	8	7	7	22
10	6	6	8	20
11	7	5	8	20
12	7	7	6	20
13	5	9	6	20
14	7	8	6	21
15	6	7	7	20
16	7	6	10	23
17	5	6	7	18
18	5	4	7	16
19	9	5	6	20
20	6	6	10	22

Students' number	Rubrics			
	Situation modification (10)	Attentional deployment (10)	Strategy choice (10)	Total (30)
21	5	6	7	18
22	5	6	7	18
23	5	6	8	19
24	5	6	7	18
25	6	7	7	20
26	6	9	7	22
27	10	10	10	30
28	7	6	7	20
29	6	7	7	20
30	8	5	9	22
31	5	5	7	17
32	9	9	9	27
33	5	6	7	18
34	9	8	9	26
35	8	8	9	25
36	10	10	10	30
37	9	9	7	25
38	9	8	10	27
39	7	8	10	25
40	6	7	8	21

Combined pre-test and post-test

Students' Number	Total pre-test	Total post-test
1	12	21
2	12	22
3	13	23
4	12	23
5	13	22
6	13	22
7	11	20
8	16	27
9	12	22
10	11	20
11	10	20
12	9	20
13	8	20
14	12	21
15	11	20
16	13	23
17	8	18
18	7	16
19	9	20
20	11	22

Students' Number	Total pre-test	Total post-test
21	7	18
22	7	18
23	10	19
24	7	18
25	9	20
26	6	22
27	22	30
28	6	20
29	8	20
30	11	22
31	6	17
32	17	27
33	7	18
34	13	26
35	11	25
36	21	30
37	16	25
38	16	27
39	16	25
40	10	21