A DEVELOPMENT OF THE LEARNING MODEL BASED ON POSITIVE PSYCHOLOGY APPROACH FOR ENHANCING COLLEGE STUDENTS'GROWTH MINDSET

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WANG JINGWEN

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WANG JINGWEN

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THE DISSERTATION TITLED

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BY

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This research explores the effectiveness of a learning model based on the positive psychology approach for enhancing college students' growth mindset. The research first defines the growth mindset and its six key components: belief in the malleability of abilities, persistence in challenges, openness to feedback, effort as a pathway to mastery, embracing challenges, adaptability and flexibility in learning. A 14-lesson learning model was designed to foster students' growth mindset. An empirical approach, combining pre-tests, post-tests, and follow-up assessments, was used to evaluate the model's impact. Results showed that students in the experimental group experienced significant improvements in their growth mindset, with sustained effects observed in follow-up assessments. The control group showed no significant change, supporting the hypotheses that the learning model effectively enhances and sustains a growth mindset.This study contributes to growth mindset and positive psychology research, offering practical teaching strategies to foster students' resilience and adaptability in academic and personal growth.

Keyword : Growth mindset, Learning model based on positive psychology approach, College students

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The completion of my PhD marks both an end and a new beginning. I will carry with me the lessons learned and continue to pursue academic excellence with passion and enthusiasm as I embark on the next chapter. Once again, my deepest gratitude to everyone who has supported me along the way!

WANG JINGWEN

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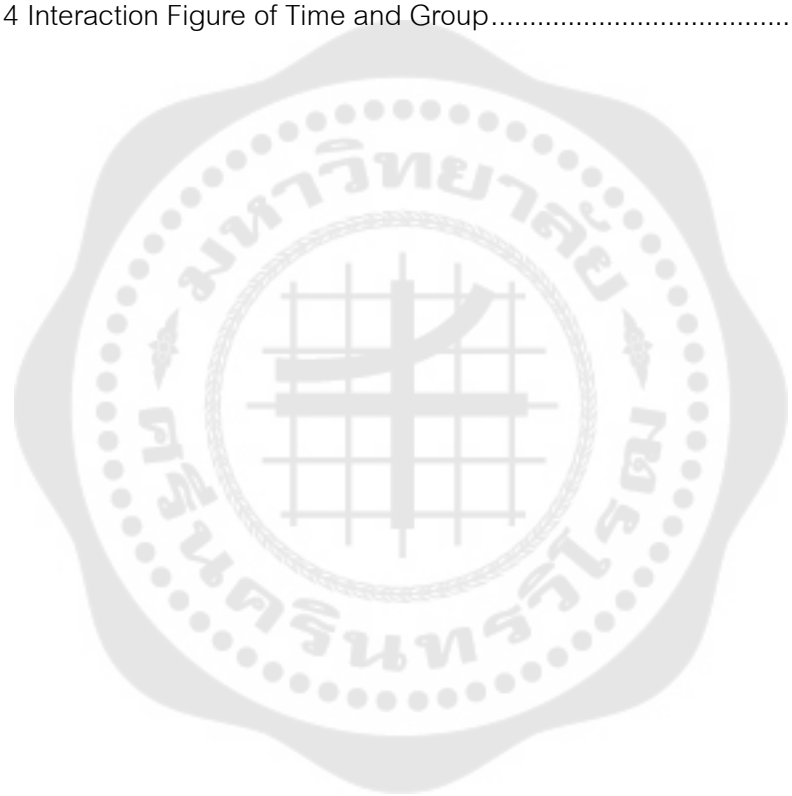

CHAPTER 1
INTRODUCTION

1.1 Statement of the Problem

The landscape of higher education is continually evolving, presenting a myriad of challenges and opportunities for student development. Central to this evolution is the concept of a growth mindset, which has become increasingly recognized as a critical determinant of student success (Smith & Johnson, 2021). According to Dweck (2006), a growth mindset is the conviction that intelligence and skills can be changed with effort and persistence. A fixed mindset, in which skills are seen as intrinsic and unalterable, stands in stark contrast to this mindset. The importance of a growth mindset in an academic context cannot be overstated. It affects how students perceive their abilities, confront challenges, and engage with their learning environment. Thus, this research aims to address the urgent need for an educational model that effectively nurtures a growth mindset among college students. Such an endeavor is not just a pedagogical shift but a necessary evolution in response to the dynamic demands of the 21st-century educational landscape.

The relevance of a growth mindset in higher education is rooted in its impact on students' learning approaches, resilience, and overall academic performance (Brown & Green, 2019). College students who adopt a growth mindset are more likely to be involved in their studies and see obstacles as chances to improve rather than as tests of their intelligence. This perspective is crucial in higher education, where students often encounter diverse and complex subjects. However, fostering a growth mindset in students is not an automatic process. Many enter higher education with preconceived notions about their abilities and intelligence, often influenced by prior educational experiences and societal norms. These notions can profoundly impact their academic journey, influencing how they approach learning, respond to failure, and engage with new concepts. Thus, there is a need for an educational approach that not only imparts knowledge but also actively cultivates a growth mindset, preparing students for the multifaceted challenges of both academic and professional life.

Positive psychology, a field that emphasizes human strengths and optimal functioning, offers valuable insights for educational settings (Seligman & Csikszentmihalyi, 2000). This psychological approach focuses on cultivating positive emotions, resilience, and a sense of well-being, which are essential components in the development of a growth mindset. In educational settings, the principles of positive psychology can be instrumental in creating an environment that encourages students to embrace their potential, learn from setbacks, and approach learning as a continuous journey. Williams (2018) highlights how positive psychology techniques, such as fostering resilience, gratitude, and optimism, can significantly enhance students' learning experiences. Despite its potential benefits, the integration of positive psychology in educational models, particularly in higher education, has not been fully realized. Traditional educational models often prioritize academic performance and knowledge acquisition, overlooking the psychological aspects that influence learning. This gap underscores the need for an educational model that not only transmits knowledge but also fosters psychological well-being and a growth mindset.

Current educational models in higher education often fall short in adequately integrating the principles of positive psychology to promote a growth mindset (Taylor, 2020). These models typically emphasize academic rigor and information retention, neglecting the crucial role of psychological factors in student development. This oversight is particularly evident in the lack of structured approaches to nurture resilience, adaptability, and a growth-oriented perspective. For instance, Davis & Clark (2017) note that traditional teaching methods often fail to address the individual differences in students' learning approaches and mindsets, leading to a one-size-fits-all educational experience. This gap in existing learning models highlights a significant opportunity: the development of an innovative approach that seamlessly blends positive psychology principles with pedagogical practices. Such an approach would not only cater to the intellectual needs of students but also to their psychological well-being, ultimately fostering a more holistic and effective learning environment.

The necessity for a new, innovative learning model in higher education is evident (Miller & Harris, 2022). This model should be one that intricately weaves the principles of positive psychology into the fabric of educational practices, thereby nurturing a growth mindset among college students. The potential impact of such a model is substantial. It could fundamentally alter how students perceive challenges and their own learning capabilities, leading to a more profound and enduring educational experience. The model would not only aim to improve academic outcomes but also to enhance students' psychological well-being, resilience, and adaptability. This holistic approach to education is crucial in preparing students for the complexities of modern life and professional environments, where adaptability and continuous learning are key. Moreover, such a model could serve as a catalyst for change in educational practices, shifting the focus from purely academic outcomes to a more comprehensive view of student development.

Today's college students face a diverse array of challenges that extend beyond the academic sphere. These challenges include navigating a rapidly changing job market, dealing with mental health issues, and developing effective personal development strategies (Wilson, 2021). These factors can significantly impede the development of a growth mindset and adversely affect students' overall educational experience. For instance, the pressure to excel academically often leads to stress and anxiety, which can hinder students' ability to embrace a growth mindset. Furthermore, students who lack effective personal development strategies may not be prepared to deal with the failures and setbacks that are a natural part of the learning process. An educational model that not only tackles these issues but also uses them as chances to foster a growth mindset is therefore desperately needed. A model like this would give students the skills and techniques they need to succeed when faced with challenges, encouraging resilience and a constructive approach to education and self-improvement.

The significance of this research lies in its potential to transform educational practices and positively impact student outcomes (Robinson & Lee, 2020). By developing and implementing a learning model based on positive psychology

principles, this study aims to offer a novel and impactful approach to enhance the growth mindset of college students. The success of this endeavor could lead to a paradigm shift in how education is delivered and perceived in higher education settings. The model's implementation could serve as a benchmark for educational institutions seeking to foster not only academic excellence but also psychological well-being and personal growth in students. Additionally, this research could fill a critical gap in the existing literature by providing empirical evidence on the effectiveness of positive psychology approaches in higher education. The findings could inform future educational policies and teaching methodologies, ultimately contributing to a more holistic and effective approach to student development.

The practical applications of this research are manifold and extend well beyond theoretical contributions (Patel & Gomez, 2021). The learning model, once developed and empirically validated, could offer actionable insights and strategies for educators, curriculum designers, and policymakers in higher education. It could inform the development of curricula and teaching methods that actively promote a growth mindset, thereby enhancing the overall quality and effectiveness of education. For instance, the model could include specific pedagogical techniques for integrating positive psychology practices into the classroom, such as resilience training, mindfulness exercises, and reflective practices. Additionally, the model could provide guidelines for creating a supportive and inclusive learning environment that encourages students to embrace challenges and view failures as learning opportunities. The implementation of such a model could lead to a more engaged and motivated student body, better prepared to tackle the challenges of the modern world. Furthermore, the findings of this research could be disseminated through academic journals, conferences, and workshops, thereby influencing the broader educational community and contributing to a shift in educational paradigms.

In conclusion, this research addresses a critical and unmet need in the field of educational psychology by proposing the development of a learning model that integrates positive psychology to enhance the growth mindset in college students

(Nguyen & Tran, 2022). This endeavor is not merely an academic exercise but a response to the evolving demands of higher education and the challenges faced by modern college students. The subsequent chapters will delve into the theoretical underpinnings of this model, the existing literature on growth mindset and positive psychology, and the methodology for developing and evaluating this innovative educational approach. The research sets the stage for a significant and timely contribution to the field of educational psychology, with the potential to impact educational practices and student development profoundly.

1.2 Research Questions

1) What is a college student's growth mindset and what are its components?

2) How can a positive psychology-based learning model for improving growth mindset be created?

3) How can the positive psychology-based learning model's efficacy in fostering college students' growth mindset be assessed?

1.3 Objectives of the Research

1) To research college students' definitions and elements of growth mindset.

2) To create a positive psychology-based learning model that will help college students cultivate a growth mindset.

3) To assess how well the positive psychology-based learning model works to improve college students' growth mindset.

1.4 Significance of the Research

1) Understanding Growth Mindset Levels Among College Students: Through this research, we can gain a deeper understanding of the current state of growth mindset among college students. This insight is crucial for identifying areas where students may need more support in developing a mindset conducive to lifelong learning and adaptability.

2) Development of a learning model based on positive psychology approach: The study provides a novel learning model that integrates principles of positive psychology approach with growth mindset theory. This model is specifically tailored to enhance the growth mindset among college students, addressing their unique academic and personal development needs.

3) Emphasis on Student-Centered Learning and Teamwork: The learning model emphasizes the active role of students in their learning process and the importance of collaborative learning. By focusing on these aspects, the model not only aims to improve students' growth mindset but also to enhance their collaborative and autonomous learning abilities.

4) Useful Tool for University Educators: The learning model serves as a valuable resource for university teachers. It provides them with innovative teaching strategies that align with the principles of growth mindset and positive psychology. By adopting this model, educators can facilitate more effective and engaging teaching, thereby enhancing students' learning efficiency and overall academic experience.

1.5 Scope of the Research

1.5.1 Identify the Population and Sample

Phase 1: To study the definition and components of Growth Mindset of college students. The researcher compiled the definition and elements of growth mindset through a review of the literature and interviews with five experts. In addition, the researcher asked 100 first-year Jiangxi Environmental Engineering Vocational College students with backgrounds similar to the experimental subjects to participate in a test run of the growth mindset questionnaire for college students.

Phase 2: To develop a learning model based on positive psychology approach for enhancing growth mindset of college students. After reviewing the literature, the researcher spoke with five experts to gain a deeper understanding of the learning model. The development of a positive psychology-based learning model to improve college students' growth mindsets benefited greatly from the insights this combined data offered. Over the course of six weeks, the suggested learning model

included 14 lessons, each lasting 90 minutes. Three IOC experts assessed the content to make sure the learning model worked. The course was improved in response to their input. The researcher tested the learning model on ten first-year college students with backgrounds similar to the final experimental subjects after the expert review. The final version of the learning model course was created after additional modifications were made in response to the try-out participants' feedback.

Phase 3: To evaluate the effectiveness of the learning model based on positive psychology approach for enhancing growth mindset of college students.

Population: There are a total of 784 students enrolled in the Accounting program at Jiangxi Environmental Engineering Vocational College, of which 261 are first-year students.

Sample: Forty first-year Jiangxi Environmental Engineering Vocational College accounting students made up the sample. Based on their lowest growth mindset questionnaire scores, these 40 students were chosen from among the program's 261 first-year students. In order to guarantee that the average scores of the two groups were comparable, the researcher split the students into an experimental group and a control group, each consisting of 20 students.

1.5.2 Variables

Independent Variable

Learning model based on positive psychology approach

Dependent Variable

Growth Mindset

1.6 Definition of Terms

1.6.1 Growth Mindset

A growth mindset is the conviction that skills can be developed via work and education. In their quest for mastery, people with a growth mindset look for challenges, welcome criticism, see setbacks as opportunities, and exhibit tenacity and resilience. The following six elements make up the majority of Chinese undergraduates' growth mindset:

Belief in the Malleability of Abilities refers to the knowledge that aptitudes, skills, and intelligence can be improved via work, education, and experience rather than being fixed. A fundamental component of the growth mindset, it highlights that human potential is not fixed and can develop with commitment, practice, and flexible approaches.

Persistence in the Face of Challenges refers to the continuous and determined effort to overcome obstacles, difficulties, or setbacks in the pursuit of goals or the acquisition of knowledge and skills. It embodies the resilience and tenacity required to keep moving forward despite encountering problems or failures.

Openness to Feedback and Learning from Criticism refers to the willingness to receive and use feedback for growth. It involves viewing feedback not as personal failure, but as valuable information for improvement, actively seeking and appreciating constructive criticism to enhance performance and strategies.

Effort as a Pathway to Mastery refers to the understanding and belief that consistent and dedicated effort is a fundamental driver in acquiring proficiency, expertise, or mastery in any skill or area of knowledge. This concept highlights that achievement and competence are largely the result of hard work, practice, and sustained endeavor, rather than solely dependent on innate talent or ability.

Embracing Challenges as Opportunities for Growth refers to the mindset of viewing difficulties, obstacles, and challenges not as hindrances or threats to success, but as valuable chances for learning, personal development, and skill enhancement. This perspective is rooted in the belief that overcoming challenging situations fosters resilience, creativity, problem-solving skills, and adaptability.

Adaptability and Flexibility in Learning refers to the capacity and willingness to adjust and modify one's approach to learning in response to new information, changing conditions, or unexpected challenges. This concept embodies the ability to remain open-minded, to experiment with different methods, and to change strategies when necessary to enhance understanding and effectiveness.

1.6.2 Learning Model Based on Positive Psychology Approach for Enhancing Students' Growth Mindset

The Learning Model Based on Positive Psychology Approach developed for this research refers to a structured program aimed at enhancing the growth mindset of college students by integrating positive psychology approach such as positive emotions, self-efficacy, resilience, and positive relationships. The model comprises 14 lessons, each lasting 90 minutes, conducted over a six-week period. This structured intervention helps students internalize a growth mindset by emphasizing their potential for development, resilience in the face of challenges, and the importance of positive psychological experiences.

The learning model consists of three key phases: Lead-In, Learning Activities, and Conclusion, each incorporating different elements of positive psychology to promote college students' growth mindset:

1) Lead-In: The introductory phase of each session is focused on creating a positive and supportive learning atmosphere, emphasizing the importance of positive emotions. The researcher sets the tone by introducing the theme of the lesson and establishing achievable goals, using motivational strategies that frame challenges as opportunities for growth. Activities such as icebreakers, guided visualization, and positive affirmations are incorporated to foster optimism, boost emotional well-being, and increase students' readiness to learn. This approach aims to enhance students' self-efficacy and build a psychologically safe environment where they feel supported to take risks and embrace challenges.

2) Learning Activities: The core phase of each session is built on experiential learning activities that actively incorporate positive psychology principles. The focus is on fostering resilience, self-efficacy, and social connections among students through various interactive methods such as role-playing, project-based analysis, and group discussions. These activities are designed to help students reflect on their progress, celebrate achievements, and build on their strengths. Positive reinforcement is continuously provided to acknowledge effort and perseverance,

promoting self-efficacy and reinforcing the belief that growth is possible through effort. By tackling tasks collaboratively, students develop positive relationships with their peers, strengthening social bonds and fostering a supportive learning community. Through these practices, students are encouraged to view setbacks as stepping stones for personal growth, thus enhancing their resilience and adaptability.

3) Conclusion: The final phase of each session involves structured reflection and feedback, which are integral to fostering a growth mindset through positive psychology. Students are guided to reflect on their learning experiences, identify areas of progress, and share challenges they overcame. These reflective practices are supported by gratitude exercises and positive affirmations, which create a positive learning narrative. Emphasizing what went well and recognizing the growth journey reinforces students' resilience and their belief in the malleability of abilities. The feedback gathered from students helps to further improve the learning environment and ensure their psychological needs are addressed throughout the intervention.

1.7 Research Hypotheses

The impact of the Positive Psychology-Based Learning Model on Improving Students' Growth Mindset is examined in this study. The following theories have been developed to direct the investigation and assess the intervention's efficacy.

Hypothesis1: During the follow-up period and from the pre-test to the post-test, college students in the experimental group who received the learning model intervention based on the positive psychology approach showed a significant improvement in their growth mindset.

Hypothesis2: During the pre-test, post-test, and follow-up period, college students in the experimental group who received the learning model intervention based on the positive psychology approach demonstrated a significantly improved growth mindset in comparison to the control group.

1.8 Conceptual framework

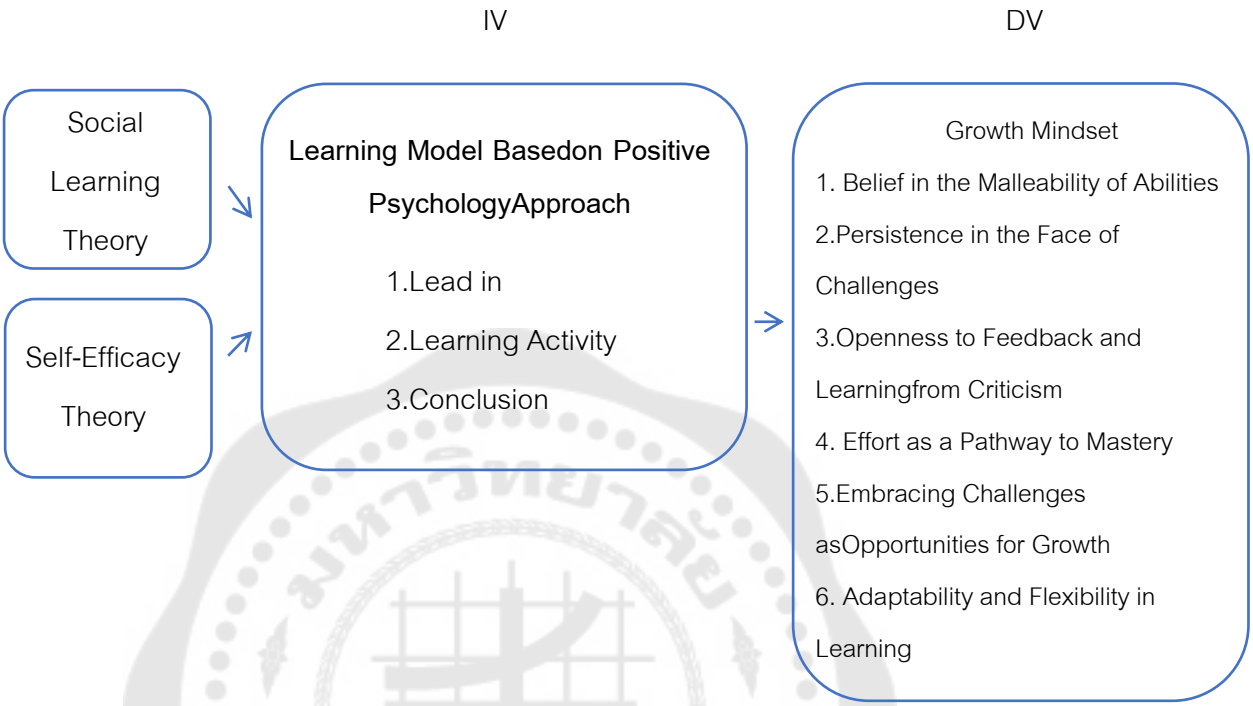

FIGURE 1 Conceptual Framework

In this study, the independent variable is the "Learning Model Based on Positive Psychology Approach," and the dependent variable is the "Growth Mindset." The learning model consists of three key phases: Lead In, Learning Activity, and Conclusion, each designed to target specific components of growth mindset. The model integrates core principles of positive emotions, self-efficacy, resilience, and positive relationships to foster six growth mindset components.

Lead-In: In the introductory phase, positive emotions are evoked through activities that set a supportive, engaging environment, helping students feel motivated and open to learning. This phase builds self-efficacy by establishing the belief that students can improve their abilities through effort, while creating a sense of belonging that encourages participation.

Learning Activity: During this core phase, the model incorporates active learning techniques, such as role-playing, group discussions, and scenario-based simulations. Self-efficacy is reinforced by engaging students in setting and tracking personal goals, reflecting on their progress, and gaining confidence through mastery experiences. Resilience is developed as students are guided to view challenges and setbacks as opportunities for learning and growth, rather than as failures. Activities that encourage openness to feedback help students embrace criticism constructively, contributing to continuous improvement and adaptability.

Conclusion: The final phase emphasizes positive relationships and reflection, where students share their experiences and achievements, reinforcing a sense of community and mutual support. This fosters positive emotions as students celebrate their growth and set future goals, consolidating the learning and ensuring that the growth mindset becomes a sustainable part of their outlook on learning.

By strategically embedding these positive psychology principles throughout the learning process, the model aims to cultivate a comprehensive growth mindset, where students not only develop cognitive skills but also emotional resilience, confidence in their abilities, and the capacity to thrive in challenging situations.

CHAPTER 2
LITERATURE REVIEW

This chapter consists of 5 parts: Growth Mindset, Positive psychology approach, Self- Determination Theory, Experiential Learning Theory and Definition of Learning Model.

2.1 The Research Foundation of Growth Mindset

2.1.1 Definition of Growth Mindset

2.1.2 Components of Growth Mindset

2.1.3 The Importance of Growth Mindset

2.1.4 Scales of Growth Mindset

2.1.5 Strategies to Promote Growth Mindset

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2.2 The Research Foundation of Positive psychology approach

2.2.1 Definition of Positive psychology

2.2.2 Components of Positive psychology

2.2.3 The Importance of Positive psychology

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2.2.5 Application of Positive Psychology in Educational Settings

2.3 Definition of Learning Model

2.1 The Research Foundation of Growth Mindset

2.1.1 Definition of Growth Mindset

Carol Dweck, a psychologist whose work has had a significant impact on our knowledge of human intelligence, motivation, and learning processes, popularized the idea of a growth mindset. The idea that skills and intelligence can be developed via commitment, effort, and hard work is known as a growth mindset (Dweck, 2006). This viewpoint stands in stark contrast to a fixed mindset, which views talent and intelligence as fixed and unalterable characteristics. Dweck's groundbreaking work demonstrated

the broad implications of mindset theory and set the stage for a great deal of research in the domains of organizational behavior, psychology, and education.

The growth mindset idea has its origins in past psychological theories about cognitive development and human potential. Both Vygotsky's (1978) Sociocultural Theory and Bandura's (1986) Social Learning Theory highlighted how internal cognitive processes and external influences interact to shape behavior and intelligence. Self-efficacy, which refers to people's confidence in their capacity to carry out tasks and accomplish goals, was first proposed by Bandura (Bandura, 1997). In contrast, Vygotsky's sociocultural theory placed a strong emphasis on how social interaction and cultural background shape cognitive capacities. Dweck's development of the growth mindset, which incorporates aspects of motivation, social learning, and cognitive flexibility, was made possible by these early frameworks.

The growth mindset has been thoroughly examined in the field of educational psychology in order to determine how it affects students' resilience, motivation, and achievement. Students who believed in the malleability of intelligence were more likely to embrace challenges and persevere in the face of academic setbacks, according to early research by Blackwell, Trzesniewski, and Dweck (2007). Yeager and Dweck's (2012) additional research revealed that students who had a growth mindset were more likely to succeed academically and to see effort as the key to mastery. These results highlight how crucial it is to promote a growth mindset in learning environments in order to facilitate both long-term academic and personal development.

Furthermore, it has been demonstrated that interventions aimed at fostering a growth mindset enhance academic performance, especially for students who struggle or perform below expectations. Fostering a growth mindset resulted in quantifiable improvements in academic outcomes, especially in difficult subjects like science and math, according to Paunesku et al. (2015), who conducted interventions aimed at at-risk students. This study demonstrates the usefulness of applying mindset theory in educational settings and gives teachers methods for improving student performance through focused psychological interventions.

Self-efficacy, resilience, and goal orientation are some of the other important psychological concepts that have connections to the growth mindset concept. According to Bandura (1997), self-efficacy is the conviction that one can carry out the actions required to achieve particular performance goals. Self-efficacy and growth mindset work in tandem because they both support perseverance in the face of adversity and the conviction that hard work eventually results in progress (Schunk & DiBenedetto, 2016). Moreover, growth mindset theory is closely related to the concept of resilience, or the capacity to bounce back from setbacks. According to research by Masten (2001) and others, people who have a growth mindset are better able to deal with hardship because they see setbacks as chances for personal development rather than as inevitable failures.

It's also important to think about the connection between goal orientation and growth mindset. According to Elliot and McGregor (2001), people who have a mastery-oriented goal approach—where learning and improvement are the main objectives—are more likely to develop a growth mindset. Performance-oriented goals, on the other hand, which place more of an emphasis on demonstrating aptitude or avoiding criticism, are more likely to fit into a fixed mindset. This distinction emphasizes how crucial it is to promote mastery goals in organizational and educational contexts in order to foster the growth mindset.

In conclusion, the concept of growth mindset has developed from a straightforward but groundbreaking idea to a sophisticated and multidimensional idea that touches on many different fields of psychological study. Its use in education has shown encouraging outcomes, especially in fostering academic success, motivation, and resilience. However, a number of variables, including individual differences and implementation, can affect how effective growth mindset interventions are. As growth mindset research advances, it provides educators, psychologists, and organizational leaders with important new insights into the dynamic nature of human intelligence and cognitive development.

2.1.2 Components of Growth Mindset

The concept of a growth mindset, as introduced by Carol Dweck, consists of several essential components that contribute to its development and manifestation in individuals. These components are foundational for understanding how a growth mindset functions and for applying this concept in educational, psychological, and personal development settings. Recognizing and fostering these elements can greatly benefit educators and psychologists aiming to cultivate resilience, motivation, and academic success in students.

1. Belief in the Malleability of Intelligence

The core tenet of the growth mindset is that intelligence is not a fixed and static attribute, but rather is malleable and can be developed via work and education. According to Dweck (2006), people who have a growth mindset change their focus from demonstrating their intelligence to developing it because they believe that intelligence is something that can be developed over time. This idea has been connected to increased academic success, motivation, and resilience and is essential for cultivating a lifelong learning attitude (Blackwell, Trzesniewski, & Dweck, 2007). Students who think that intelligence is malleable are more likely to stick with their studies and get better over time, according to research by Yeager and Dweck (2012).

2. Embracing Challenges

The propensity to accept challenges rather than run from them is one of the most noticeable traits of a growth mindset. Instead of viewing obstacles as a threat to their intelligence or sense of value, people who have a growth mindset view them as chances to develop and learn. Dweck, Walton, and Cohen's (2014) research showed that students who take on difficult assignments are more likely to succeed in the long run because they develop the ability to persevere in the face of difficulty. Many growth mindset interventions, which seek to assist students in reframing their perceptions of failure and challenge, center on this element (Paunesku et al., 2015). According to these interventions, students who embrace a growth mindset are more likely to stay motivated and make academic progress, particularly when faced with challenges.

3. Valuing Effort as a Pathway to Mastery

The conviction that effort is a necessary and efficient means of achieving mastery is another crucial element of a growth mindset. People with a growth mindset see effort as essential to learning and development, as opposed to those with a fixed mindset, who frequently see it as a sign of low ability. Because they view hard work as essential to success, Dweck (2006) contends that this viewpoint helps people stay motivated even in the face of adversity. According to research by Blackwell, Trzesniewski, and Dweck (2007), students who value effort are more likely to engage in sustained, focused learning, which leads to higher academic outcomes.

4. Learning from Criticism and Feedback

A growth mindset encourages people to use feedback as a tool for improvement and to be more open to constructive criticism. People with a growth mindset see feedback as a chance for personal development, in contrast to those with a fixed mindset who might take criticism personally. According to Dweck (2006), one of the most important aspects of academic and personal growth is the capacity to learn from criticism. Schunk and DiBenedetto (2016) added that people who welcome criticism are more likely to be resilient and adaptable because they are more concerned with ongoing development than with preserving their pride. This element is essential to education since it allows students to improve their abilities and tactics through constructive criticism.

5. Resilience and Overcoming Setbacks

Resilience, or the ability to bounce back from setbacks, is closely tied to the growth mindset. Individuals with a growth mindset tend to view failures as temporary and surmountable obstacles, rather than as reflections of their innate abilities. Masten (2001) emphasized the role of resilience in academic and personal development, noting that individuals with a growth mindset are more likely to persist through difficulties and emerge stronger. This resilience is not only crucial for academic success but also for long-term personal growth, as it fosters a mindset that sees failures as learning experiences.

6. Being Inspired by Others' Success

A less discussed but equally important component of a growth mindset is the tendency to feel inspired, rather than threatened, by others' success. Dweck (2006) highlighted that individuals with a growth mindset view the achievements of others as opportunities to learn, rather than as points of comparison that diminish their own abilities. Rattan, Savani, Chugh, and Dweck (2015) explored this aspect in educational and organizational settings, showing that when individuals are inspired by the success of their peers, they are more likely to adopt collaborative and supportive attitudes. This component is particularly important in group learning environments, where cooperation and collective growth are valued over individual competition.

In summary, the growth mindset is a multifaceted construct that encompasses several core beliefs: the malleability of intelligence, the importance of embracing challenges, the value of effort, the willingness to learn from criticism, the capacity for resilience, and the ability to feel inspired by others' success. Together, these components create a mindset that supports lifelong learning, personal development, and academic achievement. By understanding and nurturing these components, educators and psychologists can design more effective interventions to foster a growth mindset in students and individuals, leading to greater success in both personal and academic contexts.

2.1.3 The Importance of Growth Mindset

According to Carol Dweck (2006), the idea of a growth mindset is fundamental to educational psychology and has recently drawn a lot of attention from researchers. The foundation of a growth mindset is the conviction that aptitude and intelligence are not fixed characteristics but can be enhanced via work, education, and persistence. This idea is fundamental to educational theory and practice because it has a big impact on learning, academic achievement, and personal growth.

1. Impact on Academic Achievement

The beneficial effects of a growth mindset on academic performance are among its best-established advantages. According to studies by Dweck (2006) and Blackwell, Trzesniewski, and Dweck (2007), students who embrace a growth mindset

are more likely to interact with difficult content, persevere through obstacles, and eventually perform better academically. These students are more resilient in the face of failure and see effort as an essential component of learning. According to Yeager and Dweck (2012), students who have a growth mindset make more progress in subjects like science and math, where tenacity and problem-solving abilities are crucial. Boaler (2015) also emphasized how a growth mindset in mathematics instruction raises student engagement and achievement, especially in areas that are traditionally difficult.

2. Fostering Resilience and Persistence

Resilience and persistence are closely related to the growth mindset. People who have a growth mindset are more likely to see setbacks as chances to grow and learn rather than as a reflection of their inherent skills. According to Dweck, Walton, and Cohen (2014), this change in viewpoint is crucial for conquering obstacles in one's academic and personal life.Studies by Duckworth, Peterson, Matthews, and Kelly (2007) on the idea of grit further support the idea that a growth mindset enhances perseverance and passion for long-term goals. Resilience, or the capacity to bounce back from setbacks, is a key predictor of long-term success. Pupils with a growth mindset exhibit better psychological health and long-term success because they are less likely to give up when faced with challenges.

3. Personal Development and Well-Being

A growth mindset has a big impact on wellbeing and personal development in addition to academic results. People are more likely to take a proactive stance toward self-improvement and introspection if they think that there is room for growth. According to Claro, Paunesku, and Dweck (2016), people who have a growth mindset are more likely to participate in self-improvement activities and set learning-oriented goals. Higher levels of happiness and life satisfaction are associated with a positive attitude toward personal growth, which is fostered by this mindset. According to King (2012), people who have a growth mindset are better able to handle life's obstacles and uncertainties by concentrating on their own learning and development. As a result, they report feeling more content overall.

4. Professional Success and Leadership

The growth mindset also has profound implications in professional settings, where it has been associated with greater career success and effective leadership. Employees and leaders with a growth mindset are more adaptable to changing circumstances, open to feedback, and capable of complex problem-solving. Dweck (2014) noted that leaders with a growth mindset are more likely to foster a culture of innovation and continuous learning within their organizations. In addition, studies by Heslin, VandeWalle, and Latham (2005) demonstrated that employees who embrace a growth mindset are more engaged in continuous skill development, which is critical for success in today's rapidly evolving workplace. Growth-minded professionals are better equipped to navigate the demands of modern work environments, where adaptability, learning, and skill acquisition are key to maintaining competitiveness.

In conclusion, the importance of a growth mindset extends across various domains, including academic achievement, resilience, personal development, and professional success. By promoting a belief in the malleability of intelligence and abilities, the growth mindset encourages individuals to embrace challenges, learn from failures, and persist in the pursuit of their goals. Understanding and fostering a growth mindset can lead to significant improvements in educational practices, workplace environments, and personal development strategies. Ultimately, cultivating a growth mindset contributes not only to greater achievement but also to enhanced psychological well-being and life satisfaction.

2.1.4 Scales of Growth Mindset

The measurement of a growth mindset is a critical aspect of research in psychology and education, requiring reliable and valid assessment tools. These scales are essential for assessing the presence and intensity of growth mindset beliefs in individuals and for evaluating the effectiveness of interventions designed to cultivate a growth mindset. Over the years, researchers have developed several instruments to measure the growth mindset, each with unique contributions to the field of mindset theory.

1. Dweck’s Mindset Instrument

The scale created by Carol Dweck, the creator of the growth mindset concept, is one of the first instruments for assessing growth mindset. A questionnaire called Dweck's Mindset Instrument is used to gauge a person's opinions regarding the malleability of personal traits like talent and intelligence (Dweck, 2006). The scale makes a distinction between a growth mindset, which holds that intelligence can be developed, and a fixed mindset, which holds that intelligence is static. The impact of mindset beliefs on learning, academic achievement, and motivation has been extensively studied using this instrument, which has emerged as a key tool in growth mindset research (Blackwell, Trzesniewski, & Dweck, 2007).

In order to gauge respondents' opinions regarding whether intelligence is fixed or malleable, the instrument asks them to rate their agreement with a series of statements on a Likert scale. Dweck's Mindset Instrument is a popular tool in academic research and real-world interventions meant to help students develop growth mindset beliefs because of its straightforwardness and simplicity.

2. Growth Mindset Inventory (GMI)

The Growth Mindset Inventory (GMI), developed by Claro, Paunesku, and Dweck (2016), offers a more nuanced measurement of mindset beliefs. While Dweck's original scale focused primarily on intelligence, the GMI captures variations in growth mindset attitudes across different domains, including intelligence, personality traits, and moral character. This broader approach allows researchers to assess how individuals apply growth mindset principles to various aspects of their lives, not just academic performance.

The GMI has been validated across diverse populations and has proven effective in measuring the influence of a growth mindset on academic achievement, resilience, and personal development. Studies utilizing the GMI have shown that individuals who endorse growth mindset beliefs across multiple domains tend to perform better academically and demonstrate greater emotional resilience in the face of

challenges (Claro et al., 2016). The flexibility of this scale makes it a valuable tool for research that extends beyond the traditional academic focus of growth mindset theory.

3. Implicit Theories of Intelligence Scale

Dweck, Chiu, and Hong (1995) developed the Implicit Theories of Intelligence Scale to assess people's implicit views on what intelligence is. This scale distinguishes between two important theories: incremental theory, which maintains that intelligence is flexible and can increase with work and education, and entity theory, which maintains that intelligence is fixed and unalterable.

Research on how beliefs about intelligence affect behavior, motivation, and performance has made extensive use of the Implicit Theories of Intelligence Scale in both educational and psychological settings. Numerous studies have validated its validity and reliability, making it one of the most frequently cited scales in the field of mindset research. According to Hong, Chiu, Dweck, Lin, and Wan (1999), the scale has proven especially helpful in determining how students' perceptions of intelligence impact how they react to academic challenges and feedback.

4. Mindset Assessment Profile (MAP)

The Mindset Assessment Profile (MAP) is a more recent development in the field of mindset measurement tools. Designed to provide a comprehensive assessment of mindset beliefs, the MAP includes items that assess attitudes towards effort, challenges, and setbacks, in addition to beliefs about intelligence and talent (Rattan, Savani, Chugh, & Dweck, 2015). This holistic approach makes the MAP a valuable tool for understanding how mindset beliefs affect a wide range of behaviors, including academic performance, work-related challenges, and personal growth.

The MAP has been employed in various contexts, including organizational settings, where mindset beliefs can significantly impact employee performance, adaptability, and openness to feedback. Studies using the MAP have shown that individuals with a growth mindset are more likely to persist through challenges, engage in problem-solving, and seek out learning opportunities in both

educational and professional environments. Its broader scope and application make the MAP a versatile tool for research into growth mindset across different life domains.

In summary, various scales have been developed to measure the growth mindset, each contributing uniquely to our understanding and assessment of this psychological construct. Dweck's Mindset Instrument, the Growth Mindset Inventory (GMI), the Implicit Theories of Intelligence Scale, and the Mindset Assessment Profile (MAP) are all valuable tools that have advanced research on mindset beliefs and their implications in education, personal development, and organizational behavior. The continued refinement and validation of these tools are crucial for accurately measuring mindset beliefs and effectively applying growth mindset principles in practice.

2.1.5 Strategies to Promote Growth Mindset

The promotion of a growth mindset has gained increasing attention in educational, organizational, and personal development contexts. Developing strategies that effectively foster a growth mindset has become crucial for improving learning outcomes, enhancing performance, and supporting personal growth. These strategies vary widely, from teaching practices in schools to leadership approaches in professional settings. The following review examines some of the key strategies identified for promoting a growth mindset across different contexts.

1. Educational Strategies

In educational settings, various strategies have been recognized as effective for cultivating a growth mindset. Dweck (2006) emphasizes the importance of feedback and praise in shaping students' mindset. Specifically, praising effort, persistence, and strategies—rather than innate ability—encourages students to adopt a growth-oriented approach to learning. Studies by Mueller and Dweck (1998) showed that when students were praised for their hard work and perseverance, they were more likely to continue striving in the face of challenges, as opposed to students who were praised for their intelligence, who often became more risk-averse.

Another impactful intervention involves teaching students about the malleability of the brain and intelligence. Blackwell, Trzesniewski, and Dweck (2007)

demonstrated that when students learned that intelligence is not fixed but can be developed through effort and learning, they were more likely to adopt a growth mindset and perform better academically. This intervention focuses on educating students about neuroplasticity, helping them understand that their abilities can grow with time and effort.

Furthermore, fostering a classroom culture that values challenges and views mistakes as learning opportunities is critical for reinforcing a growth mindset. Boaler (2015) highlighted the importance of creating a classroom environment where students feel safe to take risks, make mistakes, and learn from those experiences. By normalizing struggle and failure as part of the learning process, educators can help students build resilience and develop a stronger growth mindset.

2. Organizational Strategies

In the workplace, promoting a growth mindset is linked to increased innovation, collaboration, and resilience among employees. A key strategy in organizational contexts is to provide employees with opportunities for learning and development. Research by Heslin, VandeWalle, and Latham (2005) showed that when employees are encouraged to engage in continuous learning, they are more likely to adopt a growth mindset. This can be facilitated by offering professional development opportunities, such as workshops, training sessions, and mentorship programs.

Encouraging risk-taking and learning from failure is another important strategy for cultivating a growth mindset in organizational settings. Companies that create environments where employees feel safe to experiment and learn from their mistakes tend to foster more innovative and adaptable teams. Dweck (2014) emphasized the role of leadership in modeling a growth mindset. Leaders who demonstrate a commitment to their own learning and openly acknowledge their mistakes create a culture where growth and learning are prioritized.

Promoting open feedback and discussion is also crucial for fostering a growth mindset in the workplace. Feedback that focuses on effort, strategies, and improvement can help employees shift their focus from proving their abilities to

developing them. Leaders should aim to recognize and reward growth-oriented behaviors, such as persistence, problem-solving, and collaborative learning, to reinforce the value of continuous improvement.

3. Personal Development Strategies

On a personal level, cultivating a growth mindset involves self-reflection, mindfulness practices, and challenging limiting beliefs. Dweck (2006) suggested that individuals can benefit from understanding their own mindset and working to identify and reframe fixed mindset beliefs. By recognizing thoughts such as "I can't do this" or "I'm not smart enough," individuals can begin to challenge these beliefs and replace them with growth-oriented perspectives, such as "I can improve with practice."

Setting learning goals rather than performance goals is another effective personal development strategy for promoting a growth mindset. Dweck (2006) explains that individuals who set learning goals focus on the process of improvement, rather than merely achieving a specific outcome. This shift in focus encourages a more positive attitude towards effort and learning, helping individuals to stay motivated even when progress is slow.

Engaging in reflective practices such as journaling and mindfulness can also promote a growth mindset. Claro, Paunesku, and Dweck (2016) found that individuals who engage in regular reflection are better able to become aware of their mindset and work towards fostering a more growth-oriented approach to challenges. Mindfulness practices, in particular, can help individuals stay present and focused during difficult tasks, reducing the tendency to become overwhelmed by negative self-talk and fixed mindset beliefs.

In conclusion, promoting a growth mindset requires a multifaceted approach that is tailored to the specific context—whether it be educational, organizational, or personal. The strategies discussed in this review highlight the importance of feedback, creating a supportive learning environment, fostering leadership behaviors that model growth-oriented thinking, and encouraging self-reflection. Implementing these strategies can lead to significant benefits, including

enhanced learning, increased resilience, and overall personal and professional growth. The continued exploration and refinement of these strategies will be key to their successful application in diverse contexts.

2.1.6 Research on the Enhancement of Growth Mindset

The concept of a growth mindset, which posits that abilities and intelligence can be developed through effort, learning, and persistence, has garnered significant attention in educational psychology and beyond. Research on enhancing a growth mindset has explored a wide range of interventions, with a focus on their impact on academic achievement, resilience, and behavioral change. The findings from these studies indicate that growth mindset interventions can effectively promote both cognitive and non-cognitive outcomes across various contexts.

1. School-Based Interventions

Interventions aimed at fostering a growth mindset have shown promising results in school settings. Dweck and her colleagues (2006) conducted growth mindset workshops in middle schools, where students were taught about brain plasticity and the role of effort in developing intelligence. The intervention resulted in notable improvements in mathematics grades, particularly among students who had previously struggled. This study underscored the importance of teaching students that intelligence is not a fixed trait and that their abilities can improve with persistence and effort.

Similarly, Blackwell, Trzesniewski, and Dweck (2007) conducted a study where students participated in sessions designed to encourage a growth mindset about intelligence. The intervention focused on reframing how students perceived challenges and failures, emphasizing the value of effort and learning from mistakes. The results showed significant academic improvement in students who received the intervention, particularly in subjects like mathematics, compared to a control group. These findings highlight the effectiveness of mindset interventions in enhancing students' academic performance.

2. Online and Digital Interventions

In recent years, online and digital interventions have emerged as effective tools for promoting a growth mindset, particularly due to their scalability and

accessibility. Paunesku et al. (2015) explored the impact of an online growth mindset intervention among high school students. The study demonstrated that even brief digital interventions—in this case, a short online module—could effectively promote a growth mindset and lead to improved academic performance, particularly among students who were at risk of dropping out or underperforming.

Good et al. (2012) examined the effects of an online growth mindset module in college students. The intervention included videos and interactive exercises aimed at teaching students about the malleability of intelligence and the benefits of effort. The results showed increased motivation and improved academic outcomes, especially among students who initially held a fixed mindset. These findings suggest that digital interventions can serve as powerful tools for fostering a growth mindset in educational settings, particularly when in-person interventions may not be feasible.

3. Workplace Interventions

Growth mindset interventions are not limited to educational contexts; they have also shown substantial benefits in corporate and organizational settings. Heslin and VandeWalle (2008) investigated the impact of growth mindset training programs in the workplace. These programs focused on promoting employee development, adaptability, and continuous learning. The results showed that employees who participated in growth mindset training demonstrated improved job performance and greater engagement, as they were more willing to take on challenges and learn from feedback.

In leadership development programs, Dweck (2014) analyzed the role of growth mindset in shaping effective leaders. The study found that leaders who adopted a growth mindset were more successful in managing teams, fostering innovation, and adapting to organizational changes. These leaders also created environments where employees felt encouraged to take risks and learn from failures, leading to improved organizational performance. This research highlights the value of integrating growth mindset principles into leadership training and organizational development strategies.

4. Psychological and Behavioral Outcomes

The psychological and behavioral effects of growth mindset interventions have also been widely studied. Yeager and Dweck (2012) explored how growth mindset training influences resilience and coping strategies in adolescents. Their findings indicated that students who participated in mindset training were better equipped to handle stress, setbacks, and academic challenges. These students demonstrated enhanced psychological well-being and were more likely to persist in the face of adversity, underscoring the broader psychological benefits of fostering a growth mindset.

Additionally, Claro, Paunesku, and Dweck (2016) conducted a study examining the long-term behavioral changes following growth mindset interventions. They found that individuals who received growth mindset training exhibited sustained improvements in goal-setting, persistence, and stress management. These behavioral changes were observed even months after the intervention, indicating that growth mindset interventions can have lasting positive effects on individuals' approach to personal and academic challenges.

In conclusion, research on interventions to enhance a growth mindset indicates that these initiatives can be highly effective across various settings, including schools, universities, and workplaces. The interventions lead to improved academic achievement, enhanced resilience, better psychological well-being, and increased workplace productivity. These findings underscore the significance of implementing growth mindset principles as part of educational, organizational, and personal development strategies. By fostering a growth mindset, individuals and organizations can cultivate greater persistence, adaptability, and success in both personal and professional contexts.

2.2 The Research Foundation of Positive psychology approach

2.2.1 Definition of Positive psychology

Positive psychology emerged in the late 1990s as a response to traditional psychology’s predominant focus on mental illness, dysfunction, and pathology. Rather

than concentrating on the treatment of negative aspects of human experience, positive psychology aims to shift the focus toward understanding and cultivating positive human experiences, such as strengths, well-being, and human potential. Pioneers of the field, Martin Seligman and Mihaly Csikszentmihalyi, are widely credited with formally establishing positive psychology, advocating for a more balanced approach to psychological research—one that includes both human weaknesses and human strengths.

Seligman and Csikszentmihalyi (2000) defined positive psychology as the scientific study of the factors that enable individuals and communities to thrive. This definition expanded traditional views of human functioning by incorporating the study of positive emotions, character strengths, and supportive institutions. Their foundational work emphasized the importance of moving beyond the narrow focus on mental illness toward a broader understanding of what makes life worth living.

Peterson (2006) further refined the definition of positive psychology, describing it as a branch of psychology concerned with promoting factors that lead to human flourishing. He highlighted how positive psychology differs from traditional models by focusing on happiness, well-being, and life satisfaction, rather than merely the absence of mental illness. Peterson's work, particularly in collaboration with Seligman, has been influential in developing frameworks for understanding and measuring character strengths.

Gable and Haidt (2005) contributed to the definition by emphasizing that positive psychology seeks to understand emotions, strengths, virtues, and institutions that foster a fulfilling life. They argued that positive emotions, such as joy and gratitude, play a crucial role in enhancing psychological resilience and promoting life satisfaction, positioning positive emotions as central to the field's understanding of human well-being.

Seligman's PERMA Model (2011) introduced a comprehensive, multidimensional approach to defining human flourishing. The PERMA model, which focuses on Positive Emotion, Engagement, Relationships, Meaning, and

Accomplishment, has become a key framework within positive psychology. Seligman argued that well-being is a multifaceted construct, and the PERMA model provides a robust structure for understanding the different elements that contribute to a fulfilling life. Each component of the PERMA model reflects an essential aspect of well-being that individuals must cultivate to achieve long-term satisfaction and happiness.

The roots of positive psychology can be traced back to humanistic psychology, particularly the work of Keyes and Haidt (2003), who discussed its foundation in humanistic theories of self-actualization and well-being. Humanistic psychology emphasized human potential, growth, and health, concepts that directly influenced the development of positive psychology. Keyes and Haidt pointed out that while humanistic psychology laid the groundwork, positive psychology distinguishes itself through its empirical research focus.

Snyder and Lopez (2002) explored the theoretical and philosophical origins of positive psychology, linking it to classical ideas of the "good life" and eudaimonia, a term from Aristotle referring to a life of virtue and purpose. They argued that positive psychology revives historical discussions about what it means to live well, grounding these ideas in modern empirical research. Their work highlighted positive psychology's philosophical depth, tracing its roots back to ethical and moral theories of human flourishing.

One of the key theoretical developments in positive psychology is Fredrickson's Broaden-and-Build Theory (2001), which posits that positive emotions broaden individuals' cognitive and behavioral repertoires, leading to the building of personal resources over time. Fredrickson's work has been particularly influential in defining how positive emotions, such as joy and curiosity, not only enhance immediate well-being but also contribute to long-term resilience and personal growth.

Another important contribution to the definition of positive psychology comes from Diener, Oishi, and Lucas (2003), who explored the global relevance of positive psychology by examining the concept of subjective well-being across cultures. Their research extended positive psychology's focus beyond Western contexts,

demonstrating that well-being is experienced and valued differently across cultures. This work underscored the importance of adopting a culturally inclusive approach to studying well-being, challenging earlier definitions that may have been overly focused on Western notions of happiness.

Despite the broad acceptance of positive psychology, critiques have emerged. For example, Held (2004) raised concerns about positive psychology's potential to downplay the negative aspects of human experience, advocating for a more nuanced and balanced approach. Held cautioned against an overly optimistic view of human functioning, arguing that suffering and adversity are integral parts of the human condition and should not be overlooked in the pursuit of well-being. Similarly, Lazarus (2003) warned of the dangers of oversimplifying emotions within positive psychology, highlighting the importance of acknowledging the complexity of emotional experiences.

Finally, contemporary developments have seen the integration of positive psychology with other psychological theories, such as Cognitive Behavioral Therapy (CBT) and mindfulness practices. This integration reflects an evolving understanding of well-being as multidimensional and dynamic. As Baer (2003) noted, mindfulness has been incorporated into positive psychology interventions to enhance present-moment awareness and emotional regulation, further expanding the scope of positive psychology.

In summary, the definition of positive psychology has evolved since its inception, reflecting a growing understanding of well-being as a multifaceted and culturally diverse construct. While initially rooted in the study of happiness and human strengths, positive psychology has expanded to incorporate a wide range of concepts, including positive emotions, character strengths, subjective well-being, and institutional support. Despite critiques, positive psychology continues to provide valuable insights into the factors that contribute to human flourishing, offering practical applications across various domains of life.

2.2.2 Components of Positive psychology

Positive psychology, since its establishment in the late 1990s, has redirected psychology's focus towards understanding and cultivating the positive aspects of human life, including well-being, happiness, and fulfillment. Martin Seligman, often regarded as the founder of this field, along with other influential figures, has identified several core components that form the foundation of positive psychology. These components encompass various facets of human flourishing and are essential to understanding how individuals can lead fulfilling and meaningful lives.

Positive Emotions

A critical component of positive psychology is the role of positive emotions, as they contribute to overall well-being and foster personal growth. Fredrickson's Broaden-and-Build Theory (2001) is a cornerstone in this area, positing that positive emotions, such as joy, gratitude, and love, broaden an individual's momentary thought-action repertoires. This broadening leads to the building of enduring personal resources—cognitive, psychological, and social—that can be drawn upon in times of need. Fredrickson's theory suggests that positive emotions do not merely represent transient feelings of happiness but play a fundamental role in long-term development and resilience.

Seligman's (2002) theory of Authentic Happiness further integrates positive emotions as one of the foundational elements of well-being. In his later work, the PERMA model (Seligman, 2011), positive emotions are explicitly identified as a key pillar of flourishing, underscoring their role in achieving authentic, sustainable happiness.

Engagement and Flow

Engagement, particularly through activities that induce a state of "flow," is another vital component of positive psychology. Csikszentmihalyi's concept of Flow (1990) describes a state of deep absorption in tasks where individuals lose awareness of time and external distractions. This state of flow, often experienced during activities that challenge one's skills just beyond their comfort zone, is associated with high levels of intrinsic motivation and satisfaction.

Within the PERMA model (Seligman, 2011), engagement is identified as one of the five essential elements of well-being. Seligman emphasizes that complete immersion in activities, where individuals experience deep focus and involvement, is crucial for overall life satisfaction. Engaging in meaningful and challenging activities not only promotes individual well-being but also fosters personal growth and mastery.

Relationships

Positive psychology also emphasizes the importance of relationships in human well-being. Baumeister and Leary (1995) argued that the need for interpersonal relationships is a fundamental human motivation, as belonging to social groups and maintaining positive social connections are critical for psychological health. They proposed that supportive and loving relationships contribute to a sense of belonging and provide a buffer against stress and adversity.

In the PERMA model (Seligman, 2011), relationships are considered one of the key contributors to flourishing. Seligman highlighted that positive relationships with family, friends, and community are essential for fostering love, care, and support, which, in turn, enhance individual well-being. Research has consistently shown that individuals with strong social networks are more likely to experience higher levels of happiness and resilience (Myers, 2000).

Meaning and Purpose

Meaning and purpose in life are crucial elements in positive psychology's framework for human flourishing. Viktor Frankl (1963), in his seminal work Man's Search for Meaning, emphasized that the search for meaning is a central human drive. Frankl's existential perspective suggests that finding meaning in life, especially during adversity, can provide individuals with a sense of purpose and fulfillment, acting as a source of motivation and resilience.

Seligman's PERMA model (2011) also incorporates meaning as a key component of well-being. Seligman defines meaning as the sense of belonging to and serving something larger than oneself, which contributes to a deeper sense of fulfillment. Studies have shown that individuals who perceive their lives as meaningful are more

likely to experience long-term well-being and life satisfaction (Heine, Proulx, & Vohs, 2006).

Accomplishment and Achievement

Accomplishment is another significant component of positive psychology. Seligman (2011) emphasized that setting and achieving meaningful goals is integral to well-being. Accomplishment is not merely about success in external metrics but includes a sense of mastery and personal development through perseverance and effort.

The concept of grit, as explored by Duckworth et al. (2007), aligns with this component by highlighting the role of perseverance and passion in long-term goal pursuit. Duckworth's research identified grit as a significant predictor of success, demonstrating that individuals who persist in their efforts to achieve goals, despite setbacks, are more likely to experience a sense of accomplishment and fulfillment. This focus on grit and perseverance resonates with the broader emphasis in positive psychology on growth, achievement, and personal development.

Character Strengths and Virtues

The identification and cultivation of character strengths is a foundational element of positive psychology. Peterson and Seligman (2004) developed a classification system of 24 character strengths, grouped into six broad virtues: wisdom, courage, humanity, justice, temperance, and transcendence. This framework provides a comprehensive understanding of the positive traits that contribute to human flourishing.

Research by Park, Peterson, and Seligman (2004) demonstrated the role of character strengths in enhancing life satisfaction and well-being. Individuals who regularly use their top character strengths in daily activities tend to report higher levels of happiness and fulfillment. This research has practical applications in both educational and clinical settings, where interventions designed to enhance the use of personal strengths have been shown to improve mental health outcomes (Seligman, Steen, Park, & Peterson, 2005).

Resilience and Coping

Resilience refers to the ability to bounce back from adversity, a key area of interest in positive psychology. Studies in this area have shown that resilient individuals can maintain their well-being in the face of challenges, using adaptive coping mechanisms to manage stress and recover from setbacks (Masten, 2001).

Coping mechanisms are strategies individuals use to manage difficult situations, and research within positive psychology has focused on identifying adaptive coping strategies that contribute to long-term psychological health. For example, Carver and Scheier (1994) emphasized that optimism and positive reappraisal are effective coping strategies that help individuals maintain a positive outlook even in the face of adversity. Resilience and coping are central to understanding how people sustain well-being over time, even in challenging circumstances.

In summary, the components of positive psychology—positive emotions, engagement, relationships, meaning, accomplishment, character strengths, resilience, and coping—collectively form the foundation of this field. These elements provide a comprehensive view of what constitutes a fulfilling life, guiding research and applications aimed at enhancing human well-being. As positive psychology continues to evolve, these components remain central to understanding the complexities of human experiences and the pursuit of a good life.

2.2.3 The Importance of Positive psychology

Positive psychology, as the scientific study of what makes life most worth living, represents a significant shift from traditional psychological paradigms that predominantly focused on pathology and mental illness. The pioneers of this field, such as Martin Seligman and Mihaly Csikszentmihalyi, have been instrumental in bringing positive psychology into the mainstream of psychological research, advocating for a focus on positive emotions, strengths, virtues, and the conditions that promote human flourishing. The importance of positive psychology can be observed in several key areas where it has had a profound impact, both theoretically and practically.

1. Enhancing Individual Well-Being

Seligman's PERMA Model (2011) has become one of the most recognized frameworks in positive psychology, emphasizing the importance of five core elements: Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment. Seligman's model illustrates how these elements contribute to individual well-being, offering a comprehensive approach to understanding how people achieve happiness and life satisfaction. Positive psychology's contribution in this area is not limited to theoretical development but has also informed practical interventions aimed at improving subjective well-being.

Research by Lyubomirsky, King, and Diener (2005) further supports the impact of positive emotions on overall life satisfaction. Their study demonstrated that individuals who experience frequent positive emotions tend to report higher levels of happiness and are more likely to engage in behaviors that enhance their well-being. These findings underscore the importance of cultivating positive emotions as a central tenet of positive psychology, reinforcing the idea that emotional experiences play a pivotal role in human flourishing.

2. Applications in Mental Health

Positive psychology has also made significant contributions to the field of mental health, complementing traditional approaches that focus on pathology by offering a strengths-based perspective. Seligman and Csikszentmihalyi (2000) emphasized that positive psychology does not seek to replace traditional mental health practices but to expand them by focusing on individuals' strengths and positive attributes, rather than solely addressing their deficits. This perspective has led to the development of interventions designed to promote resilience and well-being in addition to treating mental illness.

Fredrickson's (2001) Broaden-and-Build Theory has particular relevance for mental health, as it highlights how positive emotions can expand individuals' cognitive and behavioral repertoires, enabling them to build enduring personal resources. This theory has significant implications for coping with stress and trauma,

suggesting that individuals who experience positive emotions are better equipped to recover from adverse experiences and build resilience over time.

3. Impact on Educational Practices

Positive psychology has informed numerous educational strategies aimed at fostering a more supportive and growth-oriented learning environment. Dweck's Growth Mindset (2006), although originating in educational psychology, aligns with the principles of positive psychology by emphasizing the importance of effort, resilience, and learning from failure. Dweck's work has influenced how educators approach student development, encouraging a focus on promoting a mindset that sees challenges as opportunities for growth rather than as threats.

Additionally, Niemiec and Ryan (2009) explored the application of Self-Determination Theory (SDT) in educational settings, emphasizing the role of autonomy, competence, and relatedness in enhancing student motivation and engagement. Their work demonstrates how positive psychology principles can be integrated into educational practices to foster environments where students are intrinsically motivated and more likely to succeed both academically and personally.

4. Transforming Organizational Behavior

In the domain of organizational behavior, positive psychology has played a crucial role in promoting well-being and productivity within the workplace. Luthans, Youssef, and Avolio (2007) introduced the concept of Positive Organizational Behavior (POB), which focuses on the application of positive psychology principles, such as self-efficacy, hope, optimism, and resilience, to improve employee performance and workplace culture. Their research has shown that organizations that foster positive psychological states among employees tend to have higher levels of job satisfaction, engagement, and productivity.

Csikszentmihalyi's (1990) concept of Flow has also been widely applied in organizational settings. Flow, defined as a state of deep immersion and enjoyment in tasks, has been shown to enhance employee engagement and overall work performance. Organizations that create conditions conducive to flow are more likely to

have employees who are motivated, creative, and productive, making it a valuable concept in positive psychology's application to the workplace.

5. Promoting Resilience and Coping

One of the key contributions of positive psychology lies in its focus on resilience and the capacity to cope with adversity. Bonanno (2004) explored the concept of resilience and how individuals are able to maintain psychological well-being in the face of significant life challenges. His research demonstrated that resilience is not an extraordinary trait but rather a common psychological capacity that can be cultivated and strengthened through positive emotions and adaptive coping mechanisms.

Snyder's Hope Theory (2002) is another important contribution to the field, highlighting the role of hope and optimism in enhancing coping strategies. Hope, defined as the belief in one's ability to achieve goals and overcome obstacles, has been shown to be a key predictor of well-being, especially in individuals facing difficult circumstances. Snyder's research demonstrates that fostering hope and optimism through positive psychology interventions can significantly improve individuals' ability to cope with stress and adversity.

6. Expanding the Scope of Psychological Research

Positive psychology has also expanded the scope of psychological research by introducing Positive Psychology Interventions (PPIs), which are designed to enhance happiness and reduce depressive symptoms. Seligman et al. (2005) developed interventions such as gratitude exercises and acts of kindness that have been shown to increase well-being and decrease symptoms of depression. These interventions have been widely used in both clinical and non-clinical settings, offering practical tools for improving mental health.

Furthermore, positive psychology has demonstrated its applicability across cultures. Diener, Oishi, and Lucas (2003) conducted cross-cultural research on subjective well-being, extending the relevance of positive psychology beyond Western contexts. Their findings revealed that while the fundamental components of well-being may be universal, cultural variations influence how individuals experience and express

happiness. This research underscores the importance of considering cultural diversity when applying positive psychology principles globally.

In conclusion, the importance of positive psychology lies in its comprehensive approach to understanding and enhancing human experiences. By focusing on strengths, positive emotions, resilience, and virtues, positive psychology offers a balanced perspective on human behavior and well-being. Its influence extends across multiple domains, including mental health, education, organizational behavior, and psychological research, providing valuable insights and interventions aimed at improving life satisfaction and human flourishing.

2.2.4 Research on the Impact of Positive Psychology on Students' Growth Mindset

The concept of growth mindset, developed by Carol Dweck (2006), emphasizes the belief that intelligence and abilities can be developed through effort, learning, and perseverance. This idea contrasts with a fixed mindset, where individuals believe that intelligence is static and cannot be changed. The development of a growth mindset has profound implications for student motivation, learning strategies, and academic achievement.

At the same time, positive psychology, led by Martin Seligman (1998), focuses on human strengths, well-being, and optimal functioning. The principles of positive psychology—such as positive emotions, resilience, and character strengths—have been shown to promote a mindset that embraces challenges and persists in the face of obstacles. This section reviews how the core elements of positive psychology contribute to fostering a growth mindset, particularly in educational settings.

Dweck's Growth Mindset Theory (2006) laid the foundation for understanding how beliefs about intelligence impact student performance. According to Dweck, students with a growth mindset are more likely to embrace challenges, persevere through difficulties, and see effort as a pathway to mastery. This theory has had a significant influence on educational practices, leading to interventions that encourage students to adopt a growth-oriented approach to learning.

Seligman's PERMA Model (2011) offers a holistic framework for understanding well-being, which is directly relevant to fostering a growth mindset. The PERMA model's components—Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment—align with the characteristics of a growth mindset by emphasizing personal growth, resilience, and the importance of sustained effort in achieving meaningful goals. Studies such as those by Butler and Kern (2016) suggest that the integration of positive psychology and growth mindset interventions can enhance students' academic outcomes by encouraging a more adaptive approach to challenges.

Fredrickson's Broaden-and-Build Theory (2001) is particularly relevant to understanding the role of positive emotions in fostering a growth mindset. Fredrickson's theory posits that positive emotions broaden individuals' cognitive and behavioral repertoires, leading to the development of personal resources that can be drawn upon during challenging situations. In the context of education, positive emotions such as curiosity, optimism, and joy can expand students' willingness to engage with difficult material and persist in their efforts.

Research by King, Lyubomirsky, and Diener (2005) has shown a strong correlation between positive emotions and improved learning outcomes. Their studies indicate that students who frequently experience positive emotions are more likely to adopt a growth mindset, as these emotions enhance motivation, creativity, and perseverance—key factors in overcoming academic challenges.

Resilience, the ability to recover from setbacks, is a central theme in both positive psychology and growth mindset research. Masten and Reed (2002) highlighted resilience as a critical factor in educational settings, noting that resilient students are better equipped to handle academic adversity. Positive psychology's emphasis on building resilience aligns closely with growth mindset principles, as both frameworks advocate for persistence and adaptability in the face of challenges.

Yeager and Dweck's (2012) interventions demonstrated the effectiveness of resilience-building strategies in promoting a growth mindset among students. Their

research showed that when students were taught to view challenges as opportunities for growth rather than as threats, they developed greater resilience and were more likely to persist in their academic endeavors. This finding is supported by subsequent studies, such as those by Dweck and Cohen (2014), which further validated the role of resilience in fostering a growth-oriented approach to learning.

Peterson and Seligman's (2004) Character Strengths and Virtues Framework provides a comprehensive classification of the strengths that contribute to human flourishing. In the educational context, the identification and cultivation of character strengths such as perseverance, curiosity, and love of learning are closely linked to the development of a growth mindset. By encouraging students to recognize and apply their strengths, educators can foster greater engagement and a deeper commitment to learning.

Linkins et al. (2015) examined the application of character strengths in school settings, finding that students who regularly use their top strengths in academic tasks are more likely to develop a growth mindset. Their research suggests that character strengths provide a foundation for students to build confidence, resilience, and a positive approach to challenges—qualities essential for academic achievement.

Positive psychology has been widely applied in educational settings through various positive education programs. Rusk and Waters (2013) investigated the implementation of positive psychology interventions in schools, noting that these programs significantly enhanced students' academic motivation, well-being, and growth mindset. By promoting a focus on positive emotions, resilience, and character strengths, positive education initiatives have been shown to improve both academic and psychological outcomes.

The concept of grit, as explored by Duckworth et al. (2007), aligns closely with growth mindset principles and positive psychology. Grit, defined as perseverance and passion for long-term goals, is a significant predictor of academic success. Duckworth's research demonstrated that students with higher levels of grit were more likely to embrace challenges, persevere in the face of failure, and ultimately achieve

higher academic outcomes. This emphasis on persistence and long-term effort is a core aspect of both positive psychology and growth mindset frameworks.

In conclusion, the integration of positive psychology principles into educational settings has shown a significant impact on promoting growth mindsets among students. By emphasizing positive emotions, resilience, and character strengths, positive psychology provides a valuable framework for nurturing adaptive and optimistic attitudes towards learning and intelligence. Future research should aim to broaden these findings across diverse cultural contexts and examine the long-term effects of positive psychology interventions on students' growth mindsets.

2.2.5 Application of Positive Psychology in Educational Settings

Positive psychology, with its focus on human strengths, well-being, and flourishing, has been increasingly applied in educational settings to foster both academic success and overall student development. The integration of positive psychology principles into teaching methods, curriculum design, and student well-being programs has shown promising results in promoting resilience, emotional regulation, and a growth mindset among students. This section reviews the various ways in which positive psychology has been applied in education and its implications for improving student outcomes.

1. Teaching and Curriculum Design

Seligman's PERMA Model (2011) has been widely incorporated into educational settings to design curricula that promote not only academic achievement but also well-being. The PERMA model, which focuses on Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment, has been used by schools to create learning environments that prioritize both emotional and intellectual growth. Kern et al. (2015) demonstrated that schools that adopted the PERMA framework saw improvements in student engagement and overall well-being, indicating the effectiveness of a well-being-focused curriculum.

In addition, the emphasis on character strengths, as outlined by Peterson and Seligman (2004), has led to the integration of moral and character

education into school curricula. By focusing on virtues such as perseverance, kindness, and teamwork, educators can help students develop qualities that support both personal and academic growth. Linkins et al. (2015) found that students who were encouraged to use their character strengths in academic settings exhibited greater motivation and a stronger sense of purpose in their studies.

2. Enhancing Student Well-Being

Positive psychology-based educational programs have been developed to improve student well-being and mental health. Seligman et al. (2009) introduced the concept of Positive Education, which integrates positive psychology principles into the educational process to teach students resilience, mindfulness, and emotional intelligence. These programs aim to reduce the incidence of mental health issues such as anxiety and depression while simultaneously improving academic performance.

Research by Suldo et al. (2011) demonstrated a strong correlation between student well-being and academic achievement, suggesting that interventions aimed at improving psychological well-being can also enhance academic outcomes. Their study found that students who participated in positive psychology programs showed higher levels of life satisfaction and performed better academically, underscoring the importance of addressing well-being in educational settings.

3. Fostering a Growth Mindset

The concept of growth mindset, developed by Carol Dweck (2006), aligns closely with the principles of positive psychology, as both emphasize effort, resilience, and the ability to learn from failure. Positive psychology interventions have been used to cultivate a growth mindset in students by encouraging them to view challenges as opportunities for learning rather than as insurmountable obstacles.

Mindfulness and self-compassion, integral components of positive psychology, are increasingly being incorporated into schools to help students cope with stress and academic pressure. Neff (2003) highlighted the role of self-compassion in fostering emotional resilience, suggesting that students who practice self-compassion are better able to manage the emotional challenges associated with learning. Similarly,

Shapiro et al. (2008) found that mindfulness practices helped students stay focused and reduce anxiety, thereby supporting the development of a growth mindset.

4. Resilience and Coping Skills

Positive psychology interventions in schools also focus on building resilience and teaching effective coping strategies. Ginsburg and Jablow (2011) emphasized the importance of resilience in student development, noting that resilient students are better equipped to handle stress, setbacks, and adversity. Resilience-building programs, such as those based on positive psychology, have been shown to improve students' ability to bounce back from challenges and maintain a positive outlook on their academic journey.

Additionally, Gross and Thompson (2007) examined the role of emotional regulation in educational settings, highlighting how coping strategies based on positive psychology principles can help students manage their emotions and reactions to stress. Their research suggested that students who were taught emotional regulation skills through positive psychology interventions were more likely to engage in adaptive coping behaviors, which in turn supported better academic and psychological outcomes.

5. Teacher Training and Development

The well-being of teachers is also a critical factor in the successful application of positive psychology in education. Rusk and Waters (2013) emphasized that teacher well-being is essential for creating a supportive and positive classroom environment. When teachers experience higher levels of well-being, they are more likely to foster positive relationships with their students, use constructive teaching strategies, and model resilience and positivity.

Professional development programs that focus on incorporating positive psychology principles into teaching methods have been shown to benefit both teachers and students. Greenberg et al. (2003) developed training programs aimed at improving teachers' emotional well-being and teaching efficacy through positive psychology practices. These programs not only enhance teachers' ability to manage classroom

stress but also equip them with the tools to promote resilience and positive emotions among their students.

6. Challenges and Future Research Directions

Despite the promising results of positive psychology applications in educational settings, there are still challenges that need to be addressed. One of the key concerns is ensuring that these interventions are inclusive and culturally sensitive. Positive psychology principles may not always resonate equally across different cultural contexts, and there is a growing need to adapt these interventions to better meet the needs of diverse student populations. Diener et al. (2003) emphasized the importance of considering cultural variations in well-being and happiness, suggesting that interventions need to be tailored to reflect the values and experiences of different cultural groups.

Additionally, there is a need for more longitudinal research to assess the long-term impact of positive psychology interventions in schools. While many studies have demonstrated short-term benefits, the sustained effects of these interventions on academic performance, well-being, and personal development over time remain unclear. Future research should focus on conducting long-term studies that track the impact of positive psychology programs throughout a student's academic career.

In conclusion, the application of positive psychology in educational settings has shown significant potential for enhancing student well-being, academic performance, and personal development. By focusing on strengths, resilience, positive emotions, and character strengths, positive psychology provides a comprehensive approach to education that extends beyond traditional academic achievement. However, continued research and innovation are necessary to ensure that these interventions are effective, inclusive, and capable of producing long-lasting positive outcomes for students and educators alike.

2.3 Definition of Learning Model

Learning models serve as conceptual frameworks that describe how individuals acquire, process, and retain knowledge and skills. These models provide a

structured approach to understanding learning processes and form the foundation for developing effective teaching methods, curriculum design, and educational research. Over time, various learning models have been proposed, each reflecting different theoretical foundations, ranging from behaviorism to constructivism and modern cognitive approaches.

Behaviorist Learning Models

Behaviorist models, emerging in the early 20th century, focus on observable behavior changes in response to external stimuli. Pavlov's (1927) classical conditioning model illustrates how learning occurs through the association between a neutral stimulus and a naturally occurring response. Skinner's (1957) operant conditioning model later expanded on this, emphasizing reinforcement and punishment as critical components in shaping behavior. These behaviorist principles heavily influenced early educational practices, where repetition, reinforcement, and conditioning were key to behavior modification and classroom management. Although these models have been critiqued for neglecting the internal cognitive processes involved in learning, they laid the groundwork for instructional design and behavior management strategies in educational settings.

Behaviorist learning models focus primarily on how specific stimuli can generate predictable behavioral responses. As a result, they emphasize external factors, such as reinforcement and punishment, that shape learning behaviors (Schunk, 2012). Although behaviorist theories provide clear frameworks for behavioral modification and control in educational environments, they have been criticized for oversimplifying the learning process by neglecting cognitive and emotional aspects of learning.

Cognitive Learning Models

Cognitive learning models, in contrast to behaviorism, emphasize internal mental processes, such as thinking, memory, and problem-solving. Information Processing Theory (Atkinson & Shiffrin, 1968) compares the human mind to a computer, where learning is conceptualized as the encoding, storage, and retrieval of information.

This model highlights the active role of learners in processing information, organizing it into meaningful categories, and storing it for later retrieval. Cognitive theories have significantly influenced educational content structuring, advocating for methods that facilitate information processing, retention, and retrieval in learners.

Bandura's (1977) Social Learning Theory further extended cognitive models by emphasizing the importance of observational learning. Bandura argued that individuals learn not only through direct experience but also by observing the behavior of others and its consequences. This theory highlights the role of social and environmental influences in learning, particularly the process of imitation and modeling. Social Learning Theory has contributed to the development of collaborative learning environments, where students learn from both their teachers and peers.

Cognitive models broadened the understanding of learning by focusing on mental processes, including memory, perception, and attention. These models introduced the idea that learning involves active information processing and construction of knowledge rather than mere passive responses to stimuli (Bruner, 1966). They also set the foundation for instructional strategies that support critical thinking, problem-solving, and knowledge transfer.

Constructivist Learning Models

The constructivist perspective, influenced by Piaget (1952) and Vygotsky (1978), posits that learners actively construct knowledge by engaging with their environment and integrating new information into their existing cognitive frameworks. Piaget's Theory of Cognitive Development highlights that learning is a developmental process where individuals progress through different stages, each characterized by increasingly complex thought processes. Piaget's work has influenced discovery learning strategies that encourage students to explore, experiment, and construct their own understanding of the world around them.

Vygotsky's Sociocultural Theory emphasizes the social and cultural context of learning, introducing the concept of the Zone of Proximal Development (ZPD). The ZPD refers to the difference between what learners can do independently and what they

can achieve with guidance from a more knowledgeable individual, such as a teacher or peer. Vygotsky's theory has significantly shaped collaborative and cooperative learning practices in classrooms, promoting social interaction as a critical element of cognitive development.

Constructivist models view learning as an active process of constructing knowledge through experience. Rather than receiving information passively, learners are seen as actively engaging with and modifying their cognitive structures in response to new experiences (Piaget, 1952). This approach encourages educational methods that emphasize hands-on learning, discovery, and collaboration.

Contemporary and Integrative Learning Models

With the rise of technology and the internet, new learning models have emerged to address the evolving nature of knowledge acquisition. Connectivism (Siemens, 2005), for example, posits that learning occurs through networks and connections, emphasizing the importance of accessing and navigating information in digital environments. In this model, knowledge is distributed across various nodes, and learning involves the ability to find, assess, and utilize information in an interconnected world. Connectivism reflects the increasing role of technology in shaping how individuals learn and interact with information in the 21st century.

Another influential framework in education is Bloom's Taxonomy (1956), which categorizes learning objectives into a hierarchical structure, ranging from basic knowledge acquisition to higher-order thinking skills. Although not a learning model in the traditional sense, Bloom's Taxonomy has been instrumental in curriculum design and assessment, guiding educators in developing lessons that progress from foundational knowledge to more complex cognitive tasks.

In addition, Gardner's (1983) Theory of Multiple Intelligences challenges the traditional view of intelligence by proposing that individuals possess a variety of intelligences, including linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist intelligences. Gardner's theory encourages educators to adopt diverse instructional strategies that cater to different

learning preferences, recognizing that students have unique strengths and modes of learning.

Finally, Kolb's (1984) Experiential Learning Theory emphasizes learning as a continuous process involving concrete experience, reflective observation, abstract conceptualization, and active experimentation. This model is widely applied in adult education, professional training, and skill development, where practical, hands-on learning is essential for effective knowledge transfer and personal development.

Learning models provide varied and nuanced perspectives on how individuals acquire, process, and retain knowledge. From behaviorist approaches focused on external stimuli to cognitive and constructivist models that highlight internal processes and active engagement, these frameworks reflect the diversity of learning theories over time. As technology continues to reshape the learning landscape, contemporary models like connectivism offer new insights into how knowledge is constructed in a networked, digital world. Understanding and applying these models in educational practice enables educators and instructional designers to create more effective, engaging, and personalized learning experiences, ultimately improving outcomes for learners across diverse settings.

CHAPTER 3
RESEARCH METHODOLOGY

The topic of this research is A Development of the Learning Model based on Positive Psychology Approach for Enhancing Growth Mindset of College students. The target population is college students and the research objectives are:

1) To study the definition and components of growth mindset of college students.

2) To develop the learning model based on positive psychology approach for enhancing growth mindset of college students.

3) To evaluate the effectiveness of the learning model based on positive psychology approach for enhancing growth mindset of college students.

In order to achieve these research objectives, the researcher divided the research process into three phases:

Phase 1: Studying the definition, and component of growth mindset of college students. The researcher would explore the definition and components of growth mindset among college students and develop Growth Mindset Questionnaire in this phase.

Phase 2: Developing a learning model based on positive psychology approach for enhancing growth mindset of college students. The researcher developed the learning model with 14 lessons in 6 weeks.

Phase 3: Evaluating the effectiveness of the learning model based on positive psychology approach for enhancing growth mindset of college students. The researcher used multiple method to analyze collected data and evaluate the effectiveness of the learning model in this research.

Phase 1: Studying the definition, and component of growth mindset of college students.

The researcher combined comprehensive qualitative and quantitative method to collect the necessary information and data and study the definition and component of growth mindset among college students through literature review and semi-structured

interviews. Then, the researcher developed Growth Mindset Questionnaire as the measurement of this research in this phase.

3.1.1 Development of Semi-structured Interview Questionnaire

In order to organize interviews and study the definition and composition of college students' growth mindset, the researcher has done the following six steps:

1) After reviewing the literature and research on growth mindset, the researcher initially obtained the definition and components of growth mindset for college students, as well as the guidelines for compiling semi-structured interview questionnaires.

2) Explain the purpose and framework of the interview. All the contents of the interview are designed with semi-open questions, mainly including 3 aspects: the definition and components of the growth mindset of college students; the clear and suggestive guidelines to develop learning model for enhancing growth mindset among college students; and the guide to developing research measurement instruments to evaluate the growth mindset of college students.

3) Develop semi-open questions: The researchers design and develop semi-open questions for interviews, and ensure that they are consistent with the objectives, and each interviewed expert can easily understand and answer the questions.

4) The researcher interviewed five experts according to the designed semi-structured interview questionnaire, and recorded the interview with the consent of the interviewee. The researcher interviewed five experts face to face.

When selecting interviewees, researchers set standards for experts, such as 1) academic achievements in the fields of pedagogy, psychology and educational psychology; 2) More than 3 years of relevant work or teaching experience in schools or colleges of pedagogy, psychology and educational psychology, the interviewee needs to have professional knowledge in pedagogy, psychology and educational psychology.

TABLE 1 Information of Experts Interviewed

Name	Title	Specialty
Expert A	Professor	Psychology
Expert B	Lecturer	Counseling Psychology
Expert C	Associate Professor	Guidance Psychology
Expert D	Associate Professor	Counseling Psychology
Expert E	Instructor	Applied Psychology

5) The researcher uses content analysis method to analyze the interview data of experts; The appendix C summarizes the important reply and interview materials.

6) Revision and feedback: Based on the interview results, the researcher obtained the necessary information about the definition and composition of college students' growth mindset, and obtained the guidelines to build a learning model and developing the measurement instruments for college students' growth mindset.

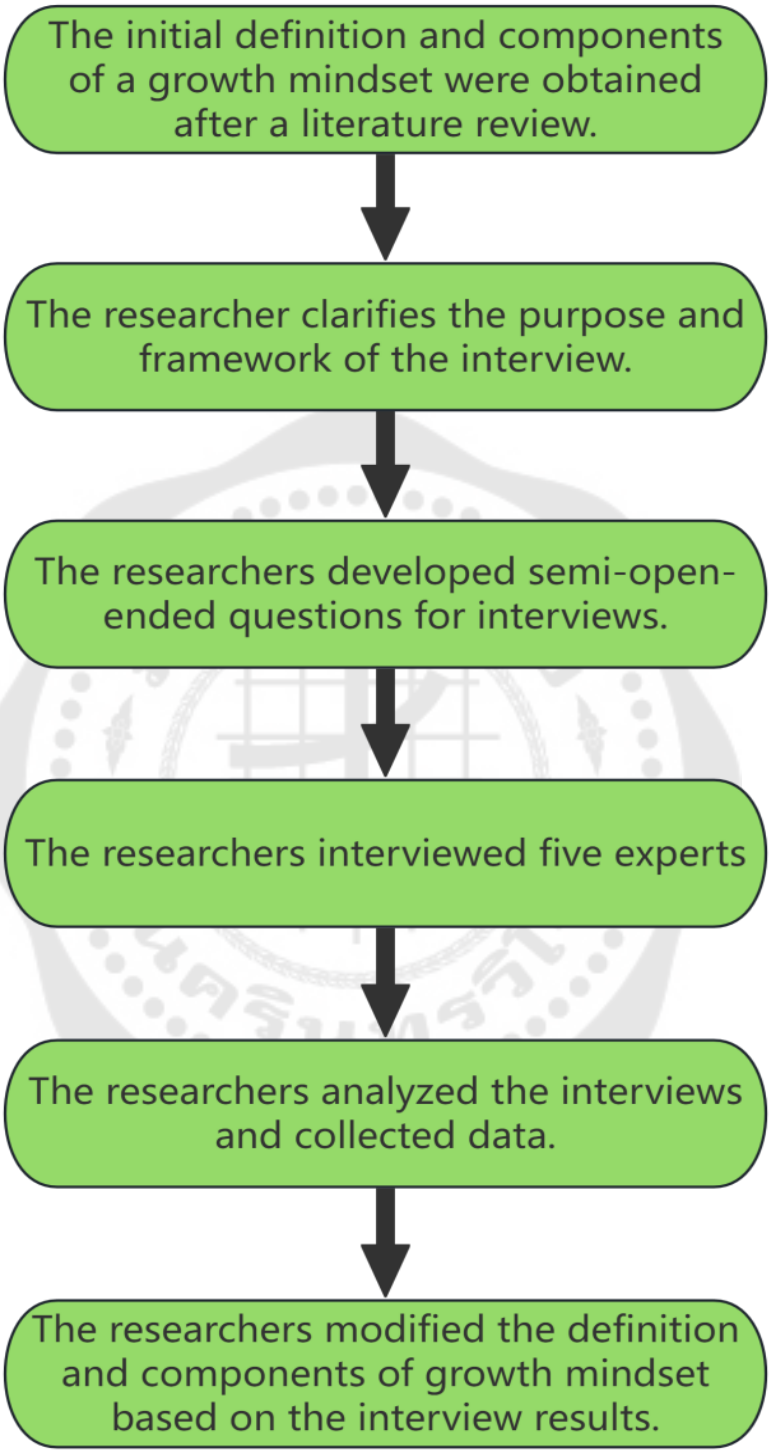

FIGURE 2 Steps to Develop a Semi-structured Interview

3.1.2 Development of growth mindset Questionnaire for College Students

The phase 2 of the research is to develop a growth mindset questionnaire, aiming at measuring and collecting data on the growth mindset level of college students. College students' growth mindset aims to evaluate students' "belief in the malleability of abilities" "persistence in the face of challenges", "openness to feedback and learning from criticism", "effort as a pathway to mastery", "embracing challenges as opportunities for growth" and "Adaptability and flexibility in learning", the steps are as follows:

1) The synthesis of several key theoretical frameworks and existing research instruments in the field of education and positive psychology. At the same time, after reviewing relevant literature and studying growth mindset, the researcher combined the interview results with five experts. The researcher summarized the growth mindset into six components. Namely "belief in the malleability of abilities" "persistence in the face of challenges", "openness to feedback and learning from criticism", "effort as a pathway to mastery", "embracing challenges as opportunities for growth".

2) The researcher designed the growth mindset questionnaire with 60 questions, each of which consists of 10 items. The entire questionnaire uses a five-point Likert scale, ranging from “Strongly Disagree, disagree, Neutral, agree, to Strongly Agree”, and they are scored as 1, 2, 3, 4 and 5 respectively. The higher the score, the stronger the growth mindset of undergraduates. Participants need to choose the scenario that suits them best.

3) The researcher handed the growth mindset questionnaire to three specialists in Item Objective Consistency (IOC), so as to evaluate the validity of the growth mindset questionnaire. These 3 experts are responsible for evaluating the applicability of the question to each component definition, the accuracy of the content and the appropriate use of language. In addition, they evaluated the empirical validity of each element, also known as content validity. According to experts’ assessment, the consistency index (IOC) of each question is 1.0. The appendix G shows that the reliability coefficient ® of all the items in the growth mindset questionnaire exceeds 1.0,

which indicates that there is a high degree of internal consistency among the questions. Then, the researcher modified the items of the questionnaire according to the feedback from experts, thus improving the questionnaire.

TABLE 2 IOC Expert Information for Growth Mindset Questionnaire

Name	Title
Kanchit Saenubol	Instructor
Monthira Charupheng	Associate Professor
Thammachot Aeamtussana	Instructor

4)The researcher selected 100 first-year college students with similar backgrounds as samples and conducted the growth mindset questionnaire survey, and obtained the **α** value (0.947) and the reliability value of each item (see Appendix F). Appendix F gives the reliability analysis of the growth mindset questionnaire for college students. Each reliability coefficient is within the allowable range of psychological and educational evaluation instruments. The overall reliability of the growth mindset questionnaire is 0.947, which is considered to be quite excellent. The good reliability of the questionnaire shows that the project evaluation of college students' growth mindset is consistent. Therefore, the questionnaire can be regarded as a reliable instrument to determine the growth mindset level of college students.

The early test results were used to revise the questionnaire, and the final version had 60 questions, including all six components of growth mindset. The final questionnaire will be used in the third phase of the study to measure the growth mindset level of first-year majoring in accounting in the business school of Jiangxi Environmental Engineering Vocational College, and collect their data to reflect their current growth mindset level. The growth mindset questionnaire consists of six parts. They are " belief in the malleability of abilities, persistence in the face of challenges, openness to feedback and learning from criticism, effort as a pathway to mastery, embracing challenges as opportunities for growth and adaptability and flexibility in learning”.

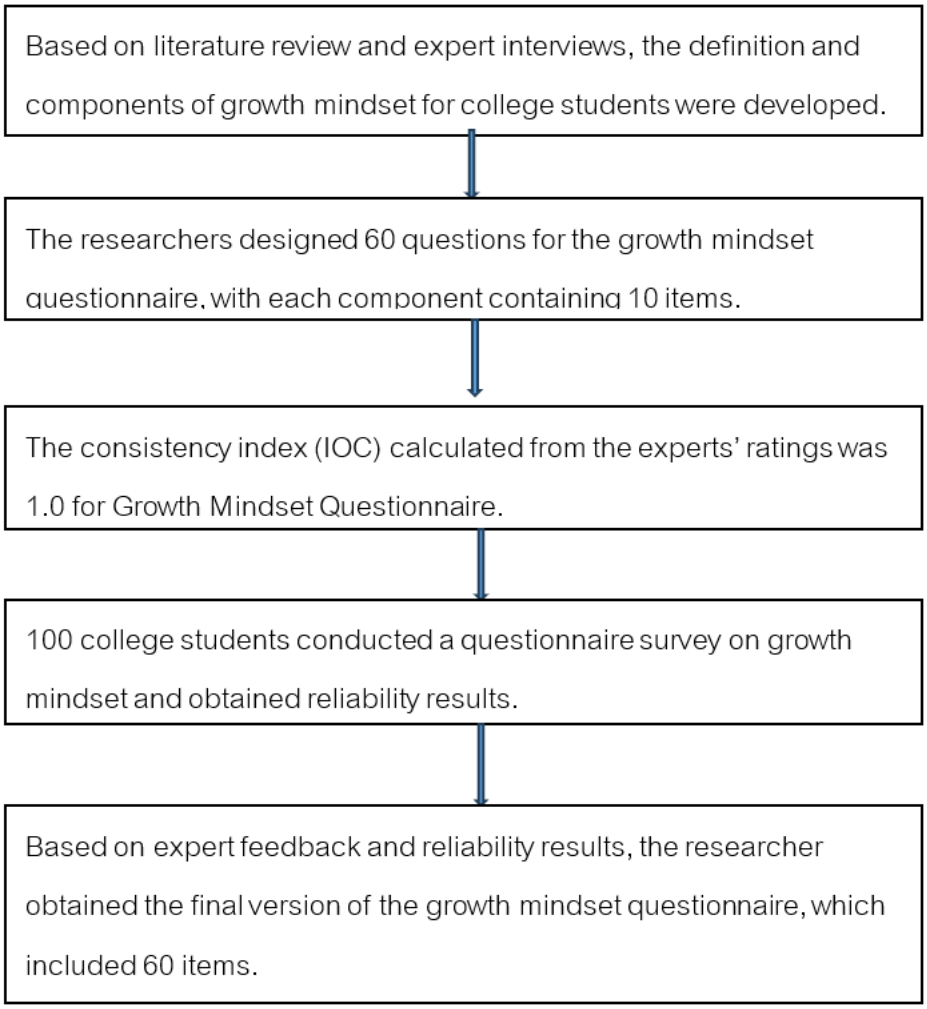

FIGURE 3 Steps to Develop growth mindset Questionnaire

TABLE 3 Example of Growth Mindset Questionnaire

The following is a sample of the growth mindset questionnaire for college students:

Please select the option that suits your personal situation and tick √ (1 = strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree).

Items	1	2	3	4	5
1.I believe that intelligence can be developed like a muscle.					
2.No matter where I start, I can always improve my abilities through effort.					
3.I think of my brain as something that can grow and change.					
4.Learning new things can significantly increase my intelligence.					
5.I am confident that I can develop skills that I currently struggle with.					
6.I view my abilities as expandable and not fixed.					
7.Challenges help me grow my abilities.					
8.I can become talented in areas I am not naturally good at.					
9.My potential to learn and grow is not limited.					

The growth mindset questionnaire for college students in this study adopts the five-point Likert scale, and the scoring criteria are based on the following ranges:

- 1.00-1.80: Moderate Low
- 1.81-2.60: Low
- 2.61-3.40: Mild
- 3.41-4.20: High

- 4.21-5.00: Moderate High

Phase 2: Developing a learning model based on positive psychology approach for enhancing the growth mindset of college students.

The phase 2 of the research aims at developing learning model based on positive psychology approach to improve the growth mindset of college students. Specific projects include:

1) Literature review: By systematically analyzing and synthesizing the existing academic literature and research results, the theoretical and conceptual information about growth mindset is obtained. As the starting point of research, literature review is helpful to understand the definition and scope of growth mindset and its development in the fields of education and psychology. In the literature review research, researchers will collect many related documents about growth mindset, including academic journal articles, books, research reports and other related publications. Through systematic screening, analysis and summary of these documents, researcher can identify different scholars' views and definitions of growth mindset theory and concepts, as well as the application of these theories in practical education and social environment.

2) Designing learning model based on positive psychology approach for enhancing growth mindset of college students: The researcher designed a learning model of 14 lesson plans, aiming at improving the growth mindset of college students. Each lesson plan lasting 90 minutes is built around three main steps: lead in, learning activity process and conclusion. The learning model centers on students' participation and collaborative learning. The activity is aimed at the six components of growth mindset: belief in the malleability of abilities, persistence in the face of challenges, openness to feedback and learning from criticism, effort as a pathway to mastery, embracing challenges as opportunities for growth, adaptability and flexibility in learning.

3) Expert evaluation: The learning model were submitted to 3 IOC experts for evaluation. Experts (whose qualifications are detailed in Appendix G) reviewed the learning model to ensure that it met the research requirements. The consistency score of

the assessment is 0.66, which shows that it is reasonable and consistent with the expected learning goal. According to the feedback from experts, the learning model has been further improved.

TABLE 4 Information of IOC Experts for Learning Model

Name	Title	Specialty
Kanchit Saenubol	Instructor	Psychology
Monthira Charupheng	Associate Professor	Educational Psychology
Sittiporn Kramnnon	Instructor	Applied Psychology

4) Learning model based on positive psychology approach Try-out: 10 students were randomly selected from the experimental group to participate in the two days try-out phase, each time for 90 minutes. This stage includes the implementation of part of the learning model to observe students' reaction and acceptance of the activities. The insights from the try-out stage are used to make additional adjustments to the learning model to improve its effectiveness.

5) Revision and improvement: According to the suggestions and feedback of IOC experts and the results of the try-out, the researcher revised the learning model and questionnaire to promote the effectiveness of the growth mindset for college students.

Phase 3: Evaluating the effectiveness of learning model based on positive psychology approach for enhancing growth mindset of college students.

3.3.1 Research design

Because of the particularity of experimental objects and processes, irrelevant variables cannot be completely controlled. Therefore, this research adopts "quasi-experimental method" and adopts the learning model based on positive psychology approach in the experimental group. By comparing the pre and post test results, it is verified whether the learning model based on positive psychology approach can effectively improve the growth mindset of accounting undergraduate students.

TABLE 5 The Control-Group Pretest-Posttest Design

Groups	Pre-Test	Experiment	Post-Test	Follow up
E R	T1	X	T2	T3
C R	T1	_	T2	T3

The meanings of the symbols are as follows:

E Experimental Group

C Control Group

R Random Allocation

T1 Pre-Test

T2 Post-Test

T3 Follow-up test (1 month later)

X Experiment

_ No Experiment

All participants would take the pre-test, post-test and follow-up test for the research. The researcher would collect and analyze all the data to see whether there are differences between experimental group and control group on growth mindset.

3.3.2 Identification of Population and Sample

Population

There are a total of 784 students enrolled in the Accounting program at Jiangxi Environmental Engineering Vocational College, of which 261 are first-year students. At this phase, the participating teacher are researcher, and the formal questionnaire is used to conduct a pre-test for 261 students. 261 questionnaires are

distributed and 261 are recovered, of which 248 are valid, with an effective recovery rate of 95.02%.

Sample

The sample of this research is taken from the research population. All the people (a total of 261 students) participated in the pre-test of this research. After sorting all the results of the pretest from high to low, the researcher selected 40 participants as the research samples, and they scored the lowest in the pretest. The researcher divided 40 samples into experimental group and control group, with 20 people in each group. The principle of grouping is to ensure that there is no significant difference in growth mindset between the experimental group and the control group.

3.3.3 Research procedure

The whole research is divided into four stages:

(1) Pre-test stage: The researcher invited the first-year students enrolled in the Accounting program at Jiangxi Environmental Engineering Vocational College as the target subjects, and conducted the growth mindset survey of college students as a pre-test. 261 college students took part in the pre-test to evaluate their growth mindset level. According to the pre-test results, 40 samples with the lowest scores in the questionnaire were selected into the experimental stage.

(2) Experimental stage: The researcher divided 40 samples into experimental group and control group. The researcher taught 20 subjects in the experimental group through the learning model. The learning model lasts for 6 weeks, with a total of 14 times. Participants in the control group did not do any experiments during the research.

(3) Post-test period: After the end of the experimental period, all participants accepted the Growth Mindset Questionnaire again as a post-test to evaluate their growth mindset level. Especially in the experimental group, researcher need to know whether their growth mindset level has improved after the experimental period.

(4) Follow-up test stage: One month later, the researcher conducted a Growth Mindset Questionnaire in experimental group and the control group to collect

follow-up data. The reason of this process is to discover the stability and persistence of the learning model for enhance the growth mindset of college students.

3.3.4 Data analysis

The researcher collected enough data in 3 stages, including quantitative and qualitative data. In order to prove the effectiveness of the learning model based on positive psychology approach in improving college students' growth mindset and test the research hypothesis, the researcher would analyze the research data in multiple methods.

(1) The researcher would use content analysis method to analyze the data collected from interviews and other qualitative data collected from research, such as feedbacks and reflections from experts and research participants.

(2) The researcher would use reliability test and IOC test to verify the consistency and reliability of Growth Mindset Questionnaire and the Learning Model based on Positive Psychology Approach among college students.

(3) The researcher would use GLM Repeated ANOVA method to analyze the data collected in the third stage, so as to comprehensively prove the effectiveness of the learning model based on positive psychology approach for enhancing growth mindset of college students.

CHAPTER 4
RESEARCH RESULTS

The research objectives of "A Development of the learning model based on positive psychology approach for Enhancing College Students' Growth Mindset" is as follows: 1) to study the definition and components of growth mindset, 2) to develop a learning model based on positive psychology approach to enhance students' growth mindset, 3) to evaluate the effectiveness of the learning model based on positive psychology approach to enhance the growth mindset of college students.

During the whole research, the researcher adopted many methods to analysis collected data to achieve the objective pf this research. Symbols and letters used in data analysis as follows:

IOC	Consistency project index
N	Number of individuals in the sample
M	The mean
t	The statistical value (t-test)
P	P-Value
D.	The standard deviation
X^2/df	Chi-square freedom ratio
MS	The Mean Square
η^2	The eta-squared

For this research, the researcher plans to conduct data analysis through the following 3 phases as follows:

Phase 1: Studying the definition and components of college student's growth mindset.

Phase 2: Developing the learning model based on positive psychology approach for enhancing growth mindset.

Phase 3: Evaluating the effectiveness of the learning models based on positive psychology approach for enhancing growth mindset of college students.

Phase 1: Studying the definition and components of college student's growth mindset.

Through literature review on the definition of growth mindset, and interviews with five experts on the definition and components of growth mindset, the following definitions and components are obtained:

4.1.1 The Definition of Growth Mindset

After reviewing many literatures, it is found that the unanimous view on the definition of growth mindset was put forward by Carol Dweck. A growth mindset refers to the belief that specificity and intelligence can be developed through dedication and hard work. Some scholars also put forward their own views on the definition of growth mindset, for example:

Liu Zhijian (2018) pointed out that growth mindset is a psychological feature that individuals can keep an open and flexible mind when facing problems and challenges, and constantly try new methods and strategies to achieve personal growth and progress.

In educational psychology, the growth mindset has been extensively studied to understand its impact on student motivation, achievement, and resilience (Blackwell, Trzesniewski, & Dweck, 2007).

Researchers have found that students who adopt a growth mindset are more likely to embrace challenges, persist in the face of setbacks, and view effort as a pathway to mastery (Yeager & Dweck, 2012).

Zhang Wei (2020) believes that growth mindset is a positive cognitive way, which enables individuals to remain optimistic and confident in the face of difficulties and challenges and believe that they have the ability and potential to solve problems.

Chen Haiyan (2022) pointed out that growth mindset refers to the psychological tendency that individuals can actively adapt and actively respond to changes and uncertain ties, and learn from them to continuously improve their abilities and qualities.

In addition, the researchers interviewed the experts with rich teaching experience in the field of educational psychology. Through the interviews, it is not difficult to find that the interviewed experts agree that the definition of growth mentality is as follows: the belief that a person's ability and intelligence can develop and improve with time input, hard work, study and resilience. The main contents are shown as follows:

“In your opinion, what is the definition of growth mindset for college students?”

“As far as I know, college students' growth mindset origins from the whole implicit intelligence theory. specifically, college students think that their abilities can be changed during their growth, and learn from criticism, persevere and grow constantly. I think this kind of thinking can be analyzed from four aspects: learning self-efficacy, psychological toughness, achievement motivation and perseverance. “(Expert 1)

"Growth mindset, put forward by Dweck, refers to an individual's basic belief in intelligence or ability, which believes that intelligence or ability is not fixed, but can be continuously improved and changed through experience and learning. At the same time, college students' growth mindset has a positive impact on individual learning, life and career, and can better stimulate individual potential.”(Expert 2)

Through the above literature review and expert interviews, we can summarize the definition of growth mindset as follows: Growth mindset refers to the belief that abilities can grow through effort and learning. Individuals with a growth mindset seek challenges, embrace feedback, view failures as opportunities, and show persistence and resilience in their pursuit of mastery.

4.1.2 The Components of Growth Mindset

After the researchers' research on the previous literature, it is concluded that there are six components of growth mindset, which are as follows: Belief in the Malleability of Intelligence, Embracing Challenges, Valuing Effort as a Pathway to Mastery, Learning from Criticism and Feedback, Resilience and Overcoming Setbacks, Being Inspired by Others' Success. (Dweck,2006)

In addition, similar or different opinions are put forward on its components through other documents, as follows:

Zhenhong Wang (2014) believes that growth mindset includes the acceptance of failure and the ability to learn from it. He emphasized that in the face of setbacks and failures, individuals should keep a positive attitude, learn from them, and constantly adjust and improve their action strategies.

Studies indicate that students who exhibit a growth mindset are more likely to embrace challenging academic tasks and view them as opportunities to learn and grow, rather than as threats to their intelligence or self-esteem (Dweck, Walton, & Cohen, 2014).Also Dweck (2006) also mentioned in its study: individuals with a growth mindset tend to be more receptive to constructive criticism and are better equipped to use it for their improvement.

Lin Chongde (2016) proposed that growth mindset is reflected in the positive cognition and evaluation of self and others. He believes that individuals should have the qualities of self-confidence, self-esteem and self-love, and at the same time respect others and appreciate their advantages and achievements, so as to establish positive interpersonal relationships and growth environment.

Liu Rude (2019) emphasized that growth mindset includes adaptability to change and innovative spirit. He believes that in the rapidly changing social environment, individuals should have the ability to adapt to new situations and solve new problems, and at the same time be brave in innovation and try new things, so as to realize personal growth and development.

After interviewing 5 experts with teaching experience, it can be found that they agree with the six mental abilities mentioned in the above literature.

“According to the literature review, growth mindset has six core components (Belief in the Malleability of Abilities, Persistence in the Face of Challenges, Openness to Feedback and Learning from Criticism, Effort as a Pathway to Mastery, Embracing Challenges as Opportunities for Growth, Adaptability and Flexibility in

Learning). Do you think growth mindset with these six components is suitable for Chinese college students?"

"I believe that these six components are appropriate and relevant to the context of Chinese students."(Expert 3)

"The six core components you mentioned are suitable for Chinese college students. However, it's important to consider the cultural context and educational environment in China."(Expert 4)

"In addition to the six components mentioned above, do you think there are other components that reflect the growth mindset of college students in China context? What are they?"

"I think the six components proposed by the researchers cover everything. I have some additional suggestions as follows: What I would like to add beyond what the researchers have studied is listening to and learning from criticism. Furthermore, in personal development, when considering the development of a growth mindset, researchers need to take into account dimensions related to thinking, beliefs, and behaviors".(Expert 3)

"There may be some considerations aspects such as nourish mental well-being to cope with stress from high pressure with academic performance, promote emotional intelligence in Chinese society, and encourage students to develop digital literacy."(Expert 4)

"In response to if there are additional components, what should the behaviors guided by those components you mentioned look like?"

"In my opinion, I believe that the starting point for someone to have a growth mind set is that the individual must have a positive self-concept, believing in their own worth and ability to overcome obstacles or solve problems on their own, and accepting the reality of what happens. Therefore, behaviors that indicate a person has a growth mindset include being constantly engaged in learning and being adaptable to change under various circumstances."(Expert 3)

“Seeking and utilizing stress management. Communicating, learn active listening and empathizing with peers. Actively learning and updating technologies.”(Expert 4)

Through the above literature review and expert interviews, the components of growth mindset can be summarized as follows: (1)belief in the malleability of abilities, (2)persistence in the face of challenges, (3)openness to feedback and learning from criticism, (4)effort as a pathway to mastery, (5)embracing challenges as opportunities for growth, (6)adaptability and flexibility in learning.

4.1.3 Reliability Test of Growth Mindset Questionnaire for College Students

Appendix X presents the reliability analysis for the growth mindset questionnaire administered to college students. In research, reliability refers to the consistency and stability of a measurement tool over time, playing a critical role in confirming the accuracy and dependability of the data collected. For this study, Cronbach's alpha coefficient was used to assess the internal consistency of the growth mindset survey, which measures the extent to which all the items in the questionnaire reliably measure the same underlying construct.

As shown in the appendix, each item of the questionnaire achieves a reliability coefficient (r) exceeding 0.5, reflecting a moderate to high level of internal consistency. Specifically, the individual reliability coefficients range from 0.537 to 0.841, all of which fall within the acceptable range for psychological and educational measurement instruments. These values confirm that the items are reliably related to one another and contribute meaningfully to the overall construct being measured.

The total reliability coefficient for the entire growth mindset questionnaire is 0.961, a value that is deemed excellent by conventional standards in psychometrics. This high level of reliability indicates that the items consistently assess the growth mindset abilities of college students across various contexts and scenarios. Consequently, the questionnaire can be considered a highly reliable tool for evaluating growth mindset in this population, offering confidence in the robustness of the research findings.

Phase 2: Developing a Learning Model based on Positive Psychology Approach for Enhancing Growth Mindset of College students.

Researchers systematically developed a learning model based on the positive psychology approach aimed at enhancing the growth mindset of college students. This model consists of a 14-session course designed to integrate principles from positive psychology with growth mindset components. The model development includes two main aspects: first, the theoretical concept and principles guiding the creation of the learning model; and second, the design and implementation of specific learning activities. These elements together form a comprehensive framework for promoting cognitive and behavioral changes in students, ultimately enhancing their growth mindset.

4.2.1 The Concept and Principles of the Learning Model Based on the Positive Psychology Approach.

In developing a learning model based on the positive psychology approach, the first step involves clarifying the definition and components of the growth mindset among college students. Through an extensive review of relevant literature and interviews with experts in psychology and education, the researcher identified six key components of the growth mindset: (1) belief in the malleability of abilities, (2) persistence in the face of challenges, (3) openness to feedback and learning from criticism, (4) effort as a pathway to mastery, (5)embracing challenges as opportunities for growth, and (6)adaptability and flexibility in learning.

In the initial stage of the research, five experts were interviewed to explore methods to strengthen the learning model based on the positive psychology approach. The experts provided valuable insights into developing a structured approach that incorporates three critical stages: introduction, learning activity process, and summary. This aligns with Bonwell & Eison's (1991) theory on active learning, which emphasizes the importance of engaging students through interactive and experiential activities.

Experts suggested that students should be actively involved in the learning process through various activities such as group discussions, case studies, and teamwork. These activities should be based on self-determination theory and

experiential learning theory and utilize a student-centered approach. Additionally, the design of learning activities should incorporate psychological principles to enhance student participation, engagement, and intrinsic motivation.

Through this model, students not only gain cognitive understanding but also develop emotional resilience, social awareness, and adaptability. The theoretical foundation of self-determination and experiential learning provides the framework to facilitate a deep and reflective learning experience, which is essential in fostering a growth mindset.

4.2.2 Developing the Learning Model Based on Positive Psychology Approach for Enhancing the Growth Mindset of College Students.

The learning model based on positive psychology is designed to provide a series of structured learning activities that foster the development of a growth mindset. These activities are carefully designed based on extensive literature review, expert input, and student-centered teaching principles. The model provides a comprehensive learning experience divided into three stages: lead in, learning activity, and conclusion. Each stage offers students the opportunity to engage with the content and develop their growth mindset through experiential learning and reflective practice.

1.Goals of the Learning Model Based on Positive Psychology Approach

The primary goal of the learning model is to improve the growth mindset of college students. The model consists of 14 teaching plans, each combining student-centered learning principles with psychological techniques to maximize learning outcomes. The model focuses on cultivating an environment where students are encouraged to view their abilities as malleable, embrace challenges, and persist despite setbacks.

2.Structure of Learning Activities

Each learning session follows a structured format divided into three distinct phases:

1)Lead in Phase: In this phase, the instructor introduces the theme or concept of the lesson, stimulating student interest and setting clear learning goals. This

phase is critical in helping students understand the importance of the activity and its connection to their personal and academic growth.

2)Learning Activity Phase: During the learning process, students actively engage in a range of interactive activities such as role-playing, group discussions, and case studies. These activities encourage students to reflect on their experiences and apply their learning to real-world situations, fostering a deeper understanding of growth mindset principles.

3)Conclusion Phase: In the final phase of each session, students summarize their learning, reflecting on the concepts and strategies discussed in the lesson. This stage helps to consolidate knowledge and ensures that students leave the session with a clear understanding of the material and its application to their personal development.

3.Learning Materials and Resources

To support the growth mindset development, learning materials used in the model include reflective journals, worksheets, case study handouts, and presentation slides. These materials are designed to align with the six components of the growth mindset and are adapted to each phase of the learning session to enhance engagement and facilitate practical application of the concepts.

4.Time Structure and Course Plan

The entire course plan includes 14 sessions, each lasting 90 minutes over a 6-week period. Each session is strategically designed to ensure that students have ample time for interaction, reflection, and application of growth mindset strategies. By following this structured schedule, students progressively build on their understanding of growth mindset concepts and develop practical skills for lifelong learning and resilience.

5.Principles of Research-Based Learning Activities

The learning model is grounded in the following key principles to ensure effective student engagement and skill development:

Role-Playing Opportunities: Providing students with opportunities to role-play in real-world scenarios to apply the knowledge they have learned in a controlled environment.

Promoting Higher-Order Thinking: Encouraging students to engage in higher-order thinking processes such as analysis, problem-solving, and evaluation.

Fostering Mutual Understanding and Sharing: Creating opportunities for students to engage in discussions, share ideas, and learn from one another in a collaborative environment.

Stimulating Active Participation: Designing activities that actively engage students and foster a sense of responsibility for their learning outcomes.

Using Positive Reinforcement: Incorporating positive reinforcement strategies to celebrate student successes and motivate continued effort and growth.

6.The Role of the Researcher in Learning Activities

The role of the researcher in implementing the learning model is multifaceted. Key roles include:

Designing and Preparing Activities: Ensuring that each activity is carefully designed with clear goals and structured to promote student engagement and learning outcomes.

Creating a Positive Learning Atmosphere: Establishing a safe and supportive environment where students feel comfortable participating and expressing their thoughts.

Providing Guidance and Support: Offering timely feedback and support during the learning activities to guide students through challenges and ensure they are achieving their learning goals.

7.The Role of Students in Learning Activities

Students play a central role in the learning process and are encouraged to take ownership of their learning experience. The following are the key roles students assume during the activities:

Active Participant: Engaging fully in all learning activities with enthusiasm and a willingness to learn.

Collaborator: Working effectively with peers in group discussions and projects, contributing ideas and supporting others in the learning process.

Reflector: Reflecting on personal learning experiences and applying the knowledge gained to future situations, both academically and personally.

8. Evaluation and Effectiveness of the Learning Model

The effectiveness of the learning model is evaluated based on student engagement, application of growth mindset principles, and reflective writing or group discussions. By observing student participation and reflecting on their learning experiences, researchers can assess the extent to which students have internalized the growth mindset concepts.

The design of this learning model not only enables students to grasp theoretical concepts but also empowers them to apply these concepts in real-world scenarios, leading to tangible cognitive and behavioral changes. By integrating the principles of positive psychology, the learning model provides a holistic framework for personal and intellectual development, equipping students with the resilience and adaptability required for academic success and beyond.

9.The Key Points of Each Lesson

The purpose of this study is to improve college students' growth mindset using a learning model based on positive psychology approach that consists of 14 lessons, a comprehensive description of which may be found in Appendix H. To promote a thorough increase in growth mindset, the main ideas will be fully integrated into each learning plan.

Lesson 1 Orientation

The first session introduces students to the course and its overarching themes, focusing on the importance of developing a growth mindset through the lens of positive psychology. The session serves as an introduction to the key concepts and principles that will guide students throughout the 14 lessons. The instructor will use a variety of methods, such as PowerPoint presentations, interactive

discussions, and ice-breaking activities, to build a supportive and open learning environment.

Students will learn about the distinction between a fixed and a growth mindset, with a particular emphasis on how positive psychology principles can support the development of a growth-oriented mindset. The interactive activities, such as group discussions and personal reflection exercises, will prompt students to assess their current mindset and begin setting personal goals for growth. By the end of this lesson, students will be familiar with the course structure, have an understanding of the core concepts, and be encouraged to engage in self-reflective practices throughout the course to track their growth.

Lesson 2 Believe in the Malleability of Abilities (1)

This session delves into the concept that abilities, intelligence, and talents are not fixed traits but can be developed and expanded through effort, learning, and perseverance. Students will be introduced to foundational theories from growth mindset research, such as Carol Dweck's work on the malleability of abilities. Using engaging activities like self-assessments and small group discussions, students will reflect on their past experiences and how their beliefs about their own abilities have shaped their actions and learning outcomes.

Role-playing exercises and personal journaling will guide students to explore how shifting their mindset from fixed to growth can impact their success in both academic and personal settings. The session will also introduce case studies of individuals who have demonstrated significant personal growth through persistent effort, helping students to draw connections between their mindset and potential outcomes.

Lesson 3 Believe in the Malleability of Abilities (2)

Building on the foundational understanding from the previous session, students will now deepen their engagement with the concept of malleability through more advanced activities and discussions. Group projects and case studies will challenge students to apply their understanding of growth mindset principles to real-world situations. For example, students might analyze the story of a famous figure who

overcame significant obstacles through perseverance and effort, linking these examples to their own personal experiences.

This session will also introduce students to strategies for reinforcing a growth mindset, such as setting incremental goals, using feedback to fuel progress, and practicing self-compassion during challenging times. By the end of this lesson, students will have practical tools to enhance their belief in the malleability of their abilities and will feel more confident in applying these strategies in their academic and personal lives.

Lesson 4 Persistence in the face of challenges (Part 1)

This session focuses on the critical role that persistence plays in overcoming challenges. Students will explore the concept of resilience and how maintaining effort in the face of difficulties is essential for achieving long-term success. Through group discussions and reflective exercises, students will identify personal challenges they have faced and examine how their responses to these challenges have either hindered or supported their growth.

Case studies of individuals who have demonstrated extraordinary persistence—such as athletes, entrepreneurs, or historical figures—will serve as models for students to draw inspiration from. The session will conclude with students developing personal action plans for how they can enhance their persistence and resilience when faced with academic or personal obstacles.

Lesson 5 Persistence in the face of challenges (Part 2)

This follow-up session delves deeper into the application of persistence by encouraging students to reflect on more complex, real-world scenarios. Through interactive activities, such as group simulations and problem-solving tasks, students will practice maintaining effort and focus even when faced with significant setbacks.

The session will highlight how adopting a growth mindset can change the way students approach failures and setbacks, viewing them as opportunities for learning rather than reasons to give up. Students will engage in group discussions

where they share personal experiences of persistence and brainstorm strategies for staying motivated. By the end of this lesson, students will be equipped with practical strategies to persevere through challenges, such as setting long-term goals, breaking tasks into manageable steps, and fostering a positive attitude toward effort.

Lesson 6 Openness to Feedback and Learning from Criticism (Part 1)

This session introduces students to the idea that feedback—whether positive or negative—can be a powerful tool for growth if received with an open mindset. The lesson begins with discussions on the nature of feedback and why many individuals, particularly those with fixed mindsets, may struggle to accept or act on criticism. Through role-playing exercises, students will simulate real-life feedback scenarios, practicing how to listen, process, and respond constructively to criticism.

Using personal reflection activities, students will identify instances in which they have received feedback and reflect on how they responded. By exploring the emotional and cognitive barriers to accepting feedback, the lesson will provide strategies for turning feedback into an opportunity for improvement. This session emphasizes the importance of viewing feedback as a pathway to mastery rather than a judgment on fixed abilities.

Lesson 7 Openness to Feedback and Learning from Criticism (Part 2)

In this continuation of the previous session, students will deepen their ability to seek, receive, and apply constructive criticism. Through group feedback exchanges, students will have the opportunity to both give and receive feedback in a controlled environment. This practical exercise will help students develop the skills needed to appreciate and utilize feedback, fostering a culture of continuous improvement.

The session will also introduce methods for emotionally regulating one's response to criticism and for identifying actionable steps based on feedback. Students will reflect on their personal growth experiences and consider how a more open approach to feedback can positively impact their learning and development. By

the end of the session, students will feel more comfortable with the feedback process and more confident in applying it to their personal growth journey.

Lesson 8 Effort as a Pathway to Mastery (Part 1)

This session introduces students to the concept that consistent effort is the most significant factor in achieving mastery in any field. The lesson will draw on research from positive psychology and growth mindset theory to highlight the importance of sustained effort over time. Through interactive exercises such as goal-setting workshops and time-management planning, students will begin developing personalized plans for maintaining effort toward their long-term goals.

The session also focuses on overcoming barriers to sustained effort, such as procrastination or fear of failure. By the end of the session, students will have a clearer understanding of how sustained effort leads to mastery and will have concrete strategies for maintaining motivation and focus over time.

Lesson 9 Effort as a Pathway to Mastery (Part 2)

Building on the concept introduced in the previous session, students will explore how to stay motivated and committed to their goals even when progress seems slow or when faced with setbacks. Group activities, such as project-based learning tasks and reflective discussions, will encourage students to practice persistence and effort in real-time situations.

This session will also explore the role of positive reinforcement, self-compassion, and accountability in maintaining effort. Students will leave with an individualized plan that incorporates strategies for sustaining effort in their academic pursuits, hobbies, or personal growth goals. Reflecting on real-life examples of effort leading to success, students will gain a deeper appreciation for the role of effort in achieving mastery.

Lesson 10 Embracing Challenges as Opportunities for Growth (Part 1)

This session reframes challenges as opportunities for growth and personal development. Students will engage in reflective exercises that encourage them to view past challenges through a growth mindset lens, identifying the ways in which they grew or learned from difficult experiences. Using interactive activities such as case

studies and role-playing, students will explore how adopting a positive attitude toward challenges can foster resilience, creativity, and adaptability.

The session emphasizes the importance of reframing difficulties as essential parts of the learning process. By the end of the lesson, students will have developed a stronger sense of how challenges can fuel their personal growth and academic success.

Lesson 11 Embracing Challenges as Opportunities for Growth (Part 2)

In this continuation, students will apply the concepts of reframing and overcoming challenges through more complex activities and discussions. Group projects and problem-solving simulations will challenge students to view difficult tasks as opportunities to test their skills and push their boundaries. Reflective journaling will allow students to assess their current approach to challenges and develop strategies for embracing difficulties as part of their learning journey.

Through these activities, students will gain practical skills for turning obstacles into growth opportunities, fostering a sense of confidence and capability. By the end of the session, students will have developed a toolkit of strategies for approaching challenges with a growth mindset.

Lesson 12 Adaptability and Flexibility in Learning (Part 1)

This session introduces the concept of adaptability and flexibility as essential skills in learning and personal growth. Through simulations and role-playing activities, students will explore how being open to change and adjusting their strategies can enhance their learning process. The session emphasizes the importance of staying flexible in the face of new information or unexpected challenges.

Students will engage in group discussions about times they had to adapt to new circumstances and reflect on how flexibility helped them succeed. By the end of the session, students will understand the value of adaptability and will have developed strategies for staying open-minded and responsive in their academic and personal lives.

Lesson 13 Adaptability and Flexibility in Learning (Part 2)

This session builds on the previous lesson by encouraging students to apply adaptability and flexibility to more complex learning scenarios. Through group projects and reflective discussions, students will practice adjusting their learning strategies in response to new challenges and information. The session will also highlight the importance of lifelong learning and the need to remain flexible and adaptable in an ever-changing world.

By the end of the session, students will feel more confident in their ability to adapt to new situations and will have developed strategies for integrating flexibility into their learning and personal growth.

Lesson 14 Summary and Reflection

The final session provides students with the opportunity to reflect on the key concepts and skills they have learned throughout the course. Through group discussions, personal reflections, and a final self-assessment, students will consolidate their understanding of the growth mindset and positive psychology principles. The session will also encourage students to set future goals for continuing their personal growth journey beyond the course.

By the end of the session, students will have a comprehensive understanding of how to apply the growth mindset to their academic, personal, and professional lives. The course concludes with a celebratory activity, recognizing students' efforts and progress over the 14 sessions.

TABLE 6 The Learning Model Plan Based on the Positive Psychology Approach for Enhancing College Students' Growth Mindset

Times	Learning Activity	Objective	Technique
1	Orientation	1.To familiarize students with the course structure and goals. 2.To introduce the concept of growth mindset and its importance. 3.To create a positive and engaging classroom environment. 4.To build a foundation for future lessons by establishing a supportive learning community.	Course Overview Introduction Ice-breaking Activity Group Discussion Q&A Session
2	Belief in the Malleability of Abilities (Part 1)	1.To understand the concept of the malleability of abilities. 2.To recognize the potential for growth through effort and persistence. 3.To explore strategies for developing and enhancing abilities.	Group Discussion and Sharing Role-Playing
3	Belief in the Malleability of Abilities (Part 2)	1.To deepen the understanding of the malleability of abilities. 2. To apply strategies for developing and enhancing abilities. 3. To reflect on personal growth experiences and set future goals.	Group Discussion and Sharing Situation Simulation Activity

TABLE 6 (CONTINUE)

Times	Learning Activity	Objective	Technique
4	Persistence in the Face of Challenges (Part 1)	1.To understand the concept of persistence in the face of challenges. 2.To recognize the importance of resilience and tenacity. 3.To explore strategies for developing persistence.	Group Discussion and Sharing Resilience-Building Exercises
5	Persistence in the Face of Challenges (Part 2)	1.To deepen the understanding of persistence. 2.To apply advanced strategies for maintaining effort and overcoming setbacks. 3.To reflect on personal experiences of persistence and set future goals.	Group Discussion and Sharing Persistence Simulation Activity
6	Openness to Feedback and Learning from Criticism (Part 1)	1.To understand the concept of openness to feedback and learning from criticism. 2.To recognize the value of constructive feedback for personal growth. 3.To explore strategies for effectively receiving and using feedback.	Group Discussion and Sharing Role-Playing Activity Interactive Quiz

TABLE 6 (CONTINUE)

Times	Learning Activity	Objective	Technique
7	Openness to Feedback and Learning from Criticism (Part 2)	1.To deepen the understanding of openness to feedback. 2.To apply advanced strategies for seeking and using feedback. 3.To reflect on personal experiences with feedback and set future goals.	Group Discussion Feedback Simulation Activity Self-Assessment and Goal Setting
8	Effort as a Pathway to Mastery (Part 1)	1.To understand the concept of effort as a pathway to mastery. 2.To recognize the importance of consistent and dedicated effort in achieving mastery. 3.To explore strategies for maintaining motivation and commitment to effort.	Group Discussion and Sharing Effort-Tracking Worksheet Activity Interactive Game
9	Effort as a Pathway to Mastery (Part 2)	1. To deepen the understanding of effort as a pathway to mastery. 2.To apply advanced strategies for sustaining effort and overcoming challenges. 3.To reflect on personal experiences with sustained effort and set future goals.	Group Discussion Case Study Effort Simulation Activity Mindfulness and Visualization Exercise

TABLE 6 (CONTINUE)

Times	Learning Activity	Objective	Technique
10	Embracing Challenges as Opportunities for Growth (Part 1)	1.To understand the concept of embracing challenges as opportunities for growth. 2.To recognize the benefits of viewing challenges positively. 3.To explore strategies for reframing challenges and developing resilience.	Group Discussion and Sharing Challenge-Reframing Exercise Interactive Role-Playing
11	Embracing Challenges as Opportunities for Growth (Part 2)	1.To deepen the understanding of embracing challenges as opportunities for growth. 2.To apply advanced strategies for maintaining a positive mindset in the face of challenges. 3.To reflect on personal experiences with challenges and set future goals.	Group Discussion and Case Study Analysis Challenge Simulation Activity Creative Expression Exercise
12	Adaptability and Flexibility in Learning (Part 1)	1.To understand the concept of adaptability and flexibility in learning. 2.To recognize the importance of adjusting learning strategies in response to new information and challenges. 3.To explore strategies for enhancing adaptability and flexibility.	Group Discussion and Sharing Adaptability Exercise Interactive Problem-Solving

TABLE 6 (CONTINUE)

Times	Learning Activity	Objective	Technique
13	Adaptability and Flexibility in Learning (Part 2)	1.To deepen the understanding of adaptability and flexibility in learning. 2.To apply advanced strategies for modifying learning approaches. 3.To reflect on personal experiences with adaptable learning and set future goals.	Group Discussion and Peer Teaching Learning Flexibility Simulation Creative Reflection Activity
14	Summary and Reflection	1.To review and consolidate key concepts from the course. 2.To reflect on personal growth and development throughout the course. 3.To set future goals for continued growth and application of a growth mindset.	Review of Key Concepts Personal Reflection Activity Group Sharing and Discussion Goal-Setting Activity

Phase 3: Evaluating the Effectiveness of the Learning Model based on Positive Psychology Approach for Enhancing College Students' Growth Mindset.

4.3.1 Data Analysis Results of Experimental Group

In order to evaluate the effect of learning model based on positive psychology approach on improving college students' growth mindset, researcher put forward two hypotheses:

Hypothesis 1 : The growth mindset of college students in the experimental group who received the intervention of the learning model based on the positive

psychology approach significantly improved from pre-test to post-test and during the follow-up period.

Hypothesis 2: The growth mindset of college students in the experimental group who received the intervention of the learning model based on the positive psychology approach significantly improved than the control group during pre-test, post-test, and follow-up period.

A pretest was conducted for accounting students in the Jiangxi Environmental Engineering Vocational College.130 questionnaires were distributed, and 116 questionnaires were collected. There were 100 valid questionnaires and the effective recovery rate was 76.92%. It is predicted that the questionnaire has good reliability and validity, and it can be implemented formally. Then, before the course was taught, a pre-test was conducted for the first-year students majoring in accounting in the Jiangxi Environmental Engineering Vocational College, and 261 questionnaires were distributed, of which 248 were valid and the effective recovery rate was 95.02%. After completing the pre-test, 40 students with the lowest scores were selected according to the crossover principle. In order to ensure comparability, researcher divided these students into experimental group and control group with 20 students in each group, ensuring that the average scores of the two groups were close. The course was taught to the 40 students, and after the whole course was taught, a questionnaire survey was conducted to the 40 students again to obtain the post-test data. At the same time, one month after the students completed the course, 40 students need to be followed up to guide them to take the questionnaire test again, and compare the mastery of knowledge and the development of their own growth mindset between the two groups after completing the course for one month. And interview the students again to find out the degree of students' recognition of the course.

The researcher used the method of one-way repeated measurement ANOVA to compare the growth mindset level of college students in the experimental group before the experiment, after the experiment and follow up.

TABLE 7 Evaluation scores of the experimental group (n = 20)

Experimental stage	M	SD	Evaluate
Pre-test	2.82	0.041	Moderately low
Post-test	3.21	0.033	Moderately high
Follow-up	3.16	0.012	Moderately high

According to the results of variance analysis shown in Table 3 , it can be observed that the growth mindset academic performance of college students in the experimental group has changed significantly after the pre-test. Before the test, the growth mindset learning of the experimental group (M=2.821, SD=0.041) was at a medium low level. However, after the test, the score increased significantly (M=3.21, SD=0.033), reaching a medium high level. Subsequent follow-up survey shows that the score remains stable (M=3.16, SD=0.012), and it is still at the middle and high level. This shows that the experiment has a positive and lasting impact on the growth mindset learning of college students.

Analysis of variance of students' scoring results of each component in the experimental group at different time points (pre-test and post-test).

TABLE 8 Pre-test, Post-test and Follow-up Test were conducted in the experimental group (n = 20).

Experimental stage		Pre-test	Post-test	Follow-up
	M	2.82	3.21	3.16
Pre-test	2.82	-	0.412*	0.551**
Post-test	3.21		-	0.535**
Follow-up	3.16			-

*p<.05, **p<.01

As can be seen from Table 4-4, there are significant differences in the paired comparison test results of the average growth mindset scores of college students in the experimental group after the pre-test. In the pre-test, the average growth mindset score of students was 2.82, and in the post-test, it increased to 3.21. This difference is statistically significant ($p<0.05$), indicating that the students' self-test scores have been significantly improved. This shows that experimental intervention has effectively improved students' growth mindset. In addition, the results of paired comparison test show that the average difference between the pre-test and post-test scores is 0.412. This further proves that the post-test students' autonomous learning ability has been significantly improved. The correlation among pre-test, post-test and Follow-up stages shows a significant relationship. Specifically, the correlation coefficients of pre-test, post-test and follow-up are 0.412($p<0.05$), 0.615 ($P < 0.01$) and 0.535 ($P < 0.01$). These results show that there is a consistent relationship between the experimental measurements with the passage of time.

TABLE 9 Analysis of variance of the scores of the students in the experimental group at different time points (n = 20)

Experimental stage	M	SD	Evaluate
Belief in the Malleability of Abilities			
Pre-test	1.84	0.331	Low
Post-test	3.45	0.325	Moderately high
Follow-up	3.22	0.158	Moderately high
Persistence in the face of challenges			
Pre-test	1.99	0.224	Moderately low
Post-test	3.46	0.121	Moderately high
Follow-up	3.51	0.261	Moderately high
Openness to feedback and learning from criticism			
Pre-test	2.98	0.135	Moderately low
Post-test	3.59	0.212	Moderately high
Follow-up	3.64	0.257	Moderately high
Effort as a Pathway to Mastery			
Pre-test	1.57	0.223	Low
Post-test	3.28	0.104	Moderately high
Follow-up	3.36	0.225	Moderately high
Embracing Challenges as Opportunities for Growth			
Pre-test	2.89	0.314	Moderately low
Post-test	3.45	0.339	Moderately high
Follow-up	3.28	0.248	Moderately high
Adaptability and flexibility in learning			
Pre-test	2.96	0.157	Moderately low
Post-test	3.22	0.249	Moderately high
Follow-up	3.41	0.323	Moderately high

According to Table 9, we observed the changes of students' scores after the pre-test. In the aspect of belief in the malleability of abilities, the pre-test score is 1.84 (M=1.84, SD=0.331), indicating that it is at a low level, and the post-test score is increased to 3.45 (M=3.45, SD=0.325), reaching the middle and high level. Regarding to persistence in the face of challenges, the pre-test score was 1.99 (M=1.99, SD=0.224), indicating the middle-low level, and the post-test score was raised to 3.46 (M=3.46, SD=0.121), reaching the middle-high level. Regarding to openness to feedback and learning from criticism, the pre-test score was 2.98 (M=2.98, SD=0.135), indicating a low level, and the post-test score was raised to 3.59 (M=3.59, SD0.212), reaching a high level. Regarding to effort as a pathway to mastery, the score in the pre-test was 1.57 (M=1.57, SD=0.223), indicating a low level, and the post-test was raised to 3.28 (M=3.13, SD=0.104), reaching the middle and high level. Regarding to embracing challenges as opportunities for growth, the score in the pre-test was 2.89 (M=2.89, SD=0.314), indicating the middle and low level, and the post-test was raised to 3.45 (M=3.13, SD=0.339), reaching the middle and high level. Regarding to adaptability and flexibility in learning, the pre-test score was 2.96 (M=2.96, SD=0.157), indicating a low level, and the post-test score was raised to 3.22 (M=3.22, SD=0.249), reaching a high level.

These results show that the experiment can improve students' belief in the malleability of abilities, persistence in the face of challenges, openness to feedback and learning from criticism, effort as a pathway to mastery, embracing challenges as opportunities for growth, adaptability and flexibility in learning have a significant positive impact.

TABLE 10 Intervention Effects on growth mindset

Dimension	Experimental stage	M	SD	Variance ratio	P value
Belief in the Malleability of Abilities	Pre-test	1.84	0.331	58.366***	0.001
	Post-test	3.45	0.325		
	Follow-up	3.22	0.158		
	Total value	3.48	0.125		
Persistence in the face of challenges	Pre-test	1.99	0.224	49.261***	0.001
	Post-test	3.46	0.121		
	Follow-up	3.51	0.261		
	Total value	2.459	0.314		
Openness to feedback and learning from criticism	Pre-test	2.98	0.135	51.345***	0.001
	Post-test	3.59	0.212		
	Follow-up	3.64	0.257		
	Total value	2.845	0.227		
Effort as a pathway to mastery	Pre-test	1.57	0.223	46.228***	0.001
	Post-test	3.28	0.104		
	Follow-up	3.36	0.225		
	Total value	2.471	0.320		
Embracing challenges as opportunities for growth	Pre-test	2.89	0.314	51.212***	0.001
	Post-test	3.45	0.339		
	Follow-up	3.28	0.248		
	Total value	2.258	0.311		
Adaptability and flexibility in learning	Pre-test	2.96	0.157	54.128***	0.001
	Post-test	3.22	0.249		
	Follow-up	3.41	0.323		
	Total value	3.114	0.229		

***p< 0.001

This study presents the results of repeated measurement variance analysis of six variables: belief in the malleability of abilities, persistence in the face of challenges, openness to feedback and learning from criticism, effort as a pathway to mastery, embracing challenges as opportunities for growth, adaptability and flexibility in learning. From pre-test to post-test and Follow-up, all variables have been significantly improved, P value < 0.001. Growth mindset after-the-fact analysis confirmed that all paired comparisons among pre-test, post-test and Follow-up stages were statistically significant ($p < 0.001$), indicating that post-test and Follow-up stages were significantly improved compared with the pre-test, and the post-test stage was higher than the Follow-up stage. Specifically, the post-test and Follow-up scores are significantly higher than the pre-test scores, and the Follow-up scores are generally maintained at the post-test level. These findings show that the intervention is effective in improving the level of growth mindset, and the lasting effect is observed with the passage of time.

TABLE 11 Mauchly Sphericity Test Results of Intra-subject Effects

Measure	Mauchly's w	Approx. Chi-square	Df	P-value	Greenhouse-geisser	Huynh-feldt	Lower-bound
Time	0.914	2.915	2	0.225	0.942	1.000	0.500

Note: df = degrees of freedom.

According to Table 11, Mauchly's W value of 0.914 is used as a statistical measurement to evaluate the sphericity hypothesis, and whether the covariance matrix of the measurement is equal to identity matrix. The results show that the significance (P value) related to Mauchly's W is greater than the selected significance level, which is set at 0.05, indicating that there is not enough evidence to reject the spherical hypothesis. This means that the data is reliable when repeated measurement variance analysis is carried out.

The pre-test, post-test and follow-up of the experimental group and the control group, the results of variance analysis of college students' test scores were as follows

TABLE 12 Growth Mindset Scale for College Students (n = 40)

Experimental stage	Group	M	Sd	Evaluate
Belief in the Malleability of Abilities				
Pre-test	Experimental group	1.84	0.331	Low
	Control group	1.42	0.221	Low
Post-test	Experimental group	3.45	0.325	Moderately high
	Control group	1.49	0.228	Low
Follow-up	Experimental group	3.22	0.158	Moderately high
	Control group	1.57	0.364	Low
Persistence in the face of challenges				
Pre-test	Experimental group	1.99	0.224	Moderately low
	Control group	1.36	0.125	Low
Post-test	Experimental group	3.46	0.121	Moderately high
	Control group	2.27	0.334	Moderately low
Follow-up	Experimental group	3.31	0.261	Moderately high
	Control group	2.12	0.153	Moderately low
Openness to feedback and learning from criticism				
Pre-test	Experimental group	2.98	0.135	Moderately low
	Control group	1.66	0.224	Low
Post-test	Experimental group	3.59	0.212	Moderately high
	Control group	2.23	0.125	Moderately low
Follow-up	Experimental group	3.64	0.257	Moderately high
	Control group	2.25	0.139	Moderately low

TABLE 12 (CONTINUE)

Experimental stage	Group	M	Sd	Evaluate
Effort as a pathway to mastery				
Pre-test	Experimental group	1.57	0.223	Low
	Control group	1.87	0.144	Low
Post-test	Experimental group	3.28	0.104	Moderately high
	Control group	1.93	0.125	Low
Follow-up	Experimental group	3.36	0.225	Moderately high
	Control group	1.87	0.226	Low
Embracing challenges as opportunities for growth				
Pre-test	Experimental group	2.89	0.314	Moderately low
	Control group	1.52	0.315	Low
Post-test	Experimental group	3.45	0.339	Moderately high
	Control group	1.94	0.224	Low
Follow-up	Experimental group	3.28	0.248	Moderately high
	Control group	1.85	0.121	Low
Adaptability and flexibility in learning				
Pre-test	Experimental group	2.96	0.157	Moderately low
	Control group	1.98	0.121	Low
Post-test	Experimental group	3.22	0.249	Moderately high
	Control group	2.25	0.149	Moderately low
Follow-up	Experimental group	3.41	0.323	Moderately high
	Control group	2.12	0.105	Moderately low

In belief in the malleability of abilities, the experimental group scored lower in the pretest (M=1.84, SD=0.331) and the control group scored lower (M=1.42, SD=0.221). After the experiment, the results of the experimental group were significantly improved to the middle and high level (M=3.45, SD=0.325), while the results of the

control group remained almost unchanged (M=1.49, SD=0.228). In the Follow-up stage, the score of the experimental group decreased slightly but remained at a moderately high level (M=3.22, SD=0.158), while the score of the control group increased slightly (M=1.57, SD=0.364).

Regarding persistence in the face of challenges, the experimental group scored lower in the pre-test (M=1.99, SD=0.224) and the control group scored lower (M=1.36, SD=0.125). After the experiment, the results of the experimental group were significantly improved to the middle and high level (M=3.46, SD=0.121), while the results of the control group were improved (M=2.27, SD=0.334). In the follow-up stage, the score of the experimental group decreased slightly but remained at a moderately high level (M=3.31, SD=0.261), while the score of the control group decreased slightly (M=2.12, SD=0.153).

Regarding openness to feedback and learning from criticism, the pre-test scores of the experimental group were moderately low (M=2.98, SD=0.135), while the control group scored low (M=1.66, SD=0.224). After the experiment, the results of the experimental group were significantly improved to the middle and high level (M=3.59, SD=0.212), while the results of the control group were improved (M=2.23, SD=0.125). In the Follow-up stage, the score of the experimental group was slightly improved, and remained at a medium-high level (M=3.64, SD=0.257), while the score of the control group was also improved (M=2.25, SD=0.139).

Regarding effort as a pathway to mastery, the scores of the experimental group in the pretest were low (M=1.57, SD=0.223), and the scores of the control group were also low (M=1.87, SD=0.144). After the experiment, the results of the experimental group were significantly improved to the middle and high level (M=3.28, SD=0.104), while the results of the control group remained almost unchanged (M=1.93, SD=0.125). In the Follow-up stage, the score of the experimental group increased slightly, and remained at a medium-high level (M=3.36, SD=0.225), while the score of the control group decreased slightly (M=1.87, SD=0.226).

Regarding embracing challenges as opportunities for growth, the pre-test scores of the experimental group were low (M=2.89, SD=0.314), and the scores of the control group were also low (M=1.52, SD0.315). After the experiment, the results of the experimental group were significantly improved to the middle and high level (M=3.45, SD=0.339), while the results of the control group remained almost unchanged (M=1.94, SD=0.224). In the Follow-up stage, the score of the experimental group decreased slightly but remained at a moderately high level (M=3.28, SD=0.248), while the score of the control group decreased slightly (M=1.85, SD=0.121).

Regarding adaptability and flexibility in learning, the pre-test scores of the experimental group are low (M=2.96, SD=0.157), and the scores of the control group are also low (M=1.98, SD=0.121). After the experiment, the results of the experimental group were significantly improved to the medium-high level (M=3.22, SD=0.249), while the results of the control group were improved (M=2.25, SD=0.149). In the Follow-up stage, the score of the experimental group was improved, and remained at a medium-high level (M=3.41, SD=0.323), while the score of the control group decreased slightly (M=2.12, SD=0.105).

The above table can be simplified to obtain a more intuitive change and comparison of the following three groups of data.

TABLE 13 Average value and SD of growth mindset learning in experimental group and control group

Group	N	M	Sd	Evaluate
Pre-test				
Experimental group	20	2.82	0.041	Moderately low
Control group	20	1.45	0.025	Moderately low
Post-test				
Experimental group	20	3.21	0.033	Moderately High
Control group	20	2.04	0.018	Moderately low
Follow-up				
Experimental group	20	3.16	0.012	Moderately High
Control group	20	2.33	0.125	Moderately low

Table 13 shows the average and SD of the growth mindset of the experimental group, the control group and the follow-up group at the pre-test, post-test and follow-up test stages, and the meaning of these results.

In the pre-test stage, the average values of the experimental group and the control group were 2.82 and 1.45 respectively, and the SD was 0.041 and 0.025 respectively. The level of both groups is classified as moderately low. In the post-test stage, the average value of the experimental group increased significantly to 3.21, and the SD was 0.033, indicating that the level was medium and high. In contrast, the average value of the control group only increased slightly to 2.04, and the SD was 0.018, which remained at a moderately low level. In the follow-up, the average value of the experimental group was 3.16, and the SD was 0.012, which continued to reflect the medium-high level. At the same time, the average value of the control group is 2.33, and the SD is 0.125, which is still at the middle and low level.

Overall, these data show that the experimental group that received the intervention showed significant improvement in aspects, and this improvement was

sustained in the follow-up tests. In contrast, the level of the control group changed little, and remained at a low level throughout the testing stage.

4.3.2 Repeated Measurement Results of Mixed design

TABLE 14 Within-Subjects Effects Analysis

Measure: Growth mindset							
Source		III sum of squares	Df	Ms	F	P	Partial η^2
Time	Hypothesized sphericity assumed	8.665	2	4.436	585.319	0.001	0.951
Time * group	Hypothesized sphericity assumed	8.347	2	4.131	574.226	0.001	0.925
Error (time)	Hypothesized sphericity assumed	0.512	74	0.005			

***p< 0.001

η 2 - effect size

The influence of "time" on the measurement (presumably students' performance) is highly significant ($p < 0.001$), with a large influence ($2 = 0.951$). This shows that there are significant differences in the measured values at different time points. The interaction between "time" and "group" is also very significant ($p < 0.001$), with a larger effect ($2 = 0.925$). This shows that the influence of time on the measurement is significantly different according to the group to which the subjects belong.

In a word, time and the interaction between time and groups have great influence on the measures considered, and significant differences are observed at different time points and between different groups.

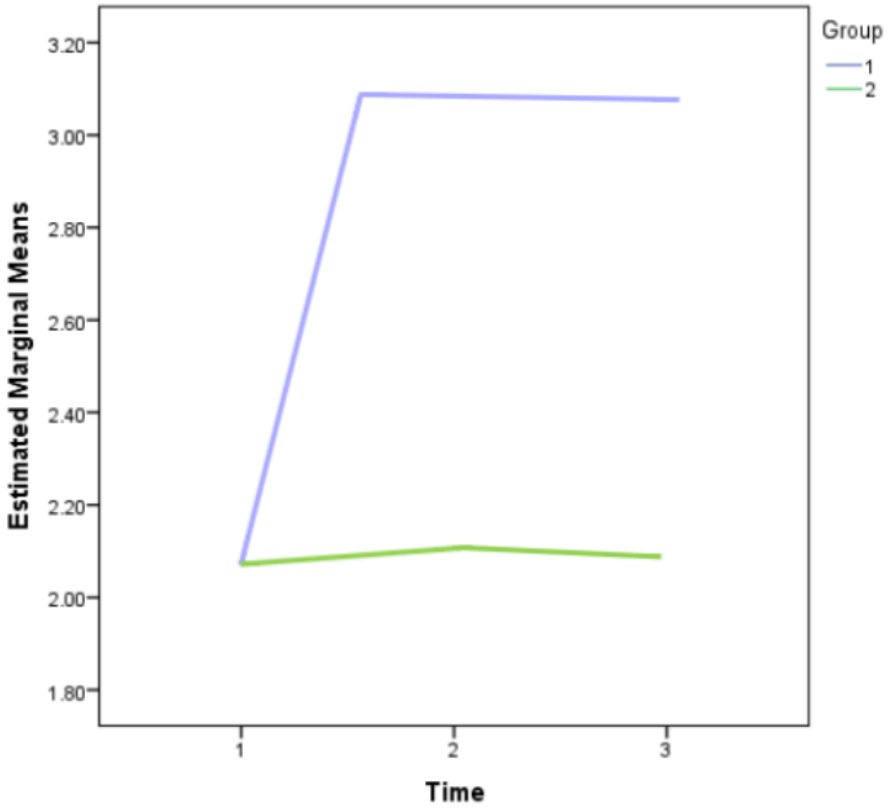

FIGURE 4 Interaction Figure of Time and Group

Group 1 = experimental group

Group 2 = control group

Time 1 = Pre-test

Time 2 = Post-test

Time 3 = Follow-up

TABLE 15 Inter-subject Effect Analysis

Measure: Growth mindset						
Source	III sum of squares	Df	Ms	F	P	Partial η^2
Intercept	641.235	1	641.235	40338.195	0.001	0.995
	17.338	1	17.338	1022.471	0.001	0.972
Error	0.715	37	0.025			

***p< 0.001 ; η^2 Effect size

Intercept and grouping factors have significant statistical effects on dependent variables (student performance). Intercept explains almost all variance (= 0.995), and grouping factor also explains a large part of variance (= 0.972).

These results show that group factors have a great influence on students' grades.

TABLE 16 Paired Comparison 1

Measure: Growth mindset					
(i) group	(j) group	Mean difference (i-j)	Standard error	P	95% confidence interval for difference
Experimental group	Control group	0.749*	0.015	0.001	[0.712, 0.849]
Control group	Experimental group	-0.749*	0.015	0.001	[-0.849, -0.712]

***p< 0.001

The average difference between the experimental group and the control group is 0.7949, the standard error is 0.015 and the significance level is 0.001. The 95% confidence interval is [0.712,0.849].

The average difference between the control group and the experimental group is -0.7949, the standard error is 0.015 and the significance level is 0.001. 95% confidence intervals are [-0.849, -0.712].

Based on these results, we can draw the following conclusions: the growth mindset level of the experimental group and the control group is significantly different because their mean value is significantly different, and the P value is less than the set significant level (usually 0.05). Specifically, the average growth mindset level of the experimental group is higher than that of the control group, and the difference is statistically significant. In a word, based on these results, we can draw a conclusion that the group members significantly affect the growth mindset ability, and the experimental group shows significantly higher growth mindset level than the control group.

TABLE 17 Paired Comparison 2

Measure: Growth mindset					
(i) time	(j) time	Mean difference (i-j)	Standard error	Significance	95% confidence interval for difference
1	2	-0.565*	0.029	0.001	[-0.612, -0.538]
	3	-0.544*	0.022	0.001	[-0.602, -0.524]
2	1	0.565*	0.029	0.001	[0.538, 0.612]
	3	0.041	0.018	0.159	[-0.024, 0.057]
3	1	0.544*	0.022	0.001	[0.524, 0.602]
	2	-0.041	0.018	0.159	[-0.057, 0.024]

***p< 0.001

The 95% confidence interval is [-0.612, -0.538], the significance level is 0.001, and the average difference between the pre-test and post-test is -0.565. This demonstrates that the pre-test growth mindset ability is substantially lower than the post-test one. The 95% confidence interval is [-0.602, -0.524], the significance level is 0.001, and the average difference between the pre-test and post-test is -0.544. This indicates that compared to the post-test, the growth mindset ability in the pre-test was noticeably lower. The 95% confidence interval is [-0.024, 0.057], the significance level is 0.159, and the average difference between the post-test and follow-up test is 0.041. This indicates that the post-test and the follow-up test did not significantly differ in terms of growth mindset ability.

IIn summary, the growth mindset is greatly impacted by the time factor. In particular:

1) The pre-test scores considerably lower than the post-test and follow-up tests for students' growth mindset skills.

2) Compared to the pre-test, the growth mindset ability in the post-test is noticeably higher.

3) The follow-up test's growth mindset ability is noticeably higher than the pre-test's,and there is no discernible difference between the two tests.

The feedback that follows focuses on the thoughts and perspectives of the students following their involvement in the positive psychology-based learning model. Every comment highlights how these courses affect college students' capacity for growth mindset.

TABLE 18 Students' Feedback on learning model based on positive psychology

Lessons and Objectives	Student feedback after class
Lesson 1: Orientation Objectives: Introduce the course and its objectives, so that students can clearly understand the expectations of the next 14 classes. This will include a detailed explanation of the concept of growth mindset, comparing it with a fixed mentality, and emphasizing the benefits of adopting growth mindset in personal and academic backgrounds.	Student A: This course really opened my eyes! Before, I always felt that my ability was fixed, and it was easy to give up when I encountered problems. But the teacher's growth mindset is really inspiring. Now I begin to believe that I can become better through hard work and study. Academically, I feel more motivated to challenge topics that I didn't dare to try before. This course not only changed my learning attitude, but also made me face difficulties more actively in my daily life. I sincerely recommend it to all students who want to improve themselves! Student B: This course is great! I always thought that intelligence was born, but now I understand the importance of growth mindset. The teacher made it clear that the contrast between growing mentality and fixed mentality made me realize that my potential is infinite. I began to try new learning methods, and I was no longer afraid of failure, because I knew that every failure was an opportunity for growth. This course has made me more confident and willing to accept challenges. Thanks to the teacher, this course has really changed my way of thinking!

TABLE 18 (CONTINUE)

Lessons and Objectives	Student feedback after class
Lesson 3: believe in the malleability of abilities Objectives: Deepen the understanding of the malleability of abilities by exploring further strategies to develop and enhance abilities. Students will engage in activities that encourage practical application of these strategies and reflect on their personal growth experiences.	Student C: This course made me understand that we can constantly improve ourselves through hard work and correct strategies. I especially like that activity about time management. It really helps me to arrange my study and life more efficiently. I feel that I have grown a lot! Student D: This course is so inspiring! I used to be afraid to try new things and worry that I couldn't do it well. But through these strategies, I began to try different learning methods, such as active learning and cooperative learning, and my grades and self-confidence were obviously improved. Thanks to this course, I saw my potential! Student E: I really appreciate the opportunity to attend this course. It not only taught me how to develop and improve my ability, but also taught me how to set goals and reflect on myself. I began to look at the challenge from a new perspective, no longer avoiding difficulties, but actively looking for ways to solve problems. I feel stronger and more confident!

TABLE 18 (CONTINUE)

Lessons and Objectives	Student feedback after class
Lesson 8: Effort as a Pathway to Mastery Objectives: Introduce the concept of effort as a pathway to mastery. It empathizes the belief that consistent and dedicated effort is cruel for acquiring proficiency and expertise in any skill or area of knowledge. Students will explore strategies to maintain motivation and commitment to sustained effort.	**Student F:** This class really inspired me and made me realize that hard work is the key to mastering any skill. I used to think that talent is more important, but now I understand that persistent efforts are the key to success. I will start setting small goals and stick to them until I am proficient in my field of interest. **Student G:** After listening to this lesson, I feel like I have found the secret book of learning! I used to be hot for three minutes, but now I have learned how to keep my motivation and commitment and keep working hard. I can't wait to apply these strategies and see how far I can go. **Student H:** This course is so useful that it makes me re-examine my view on hard work. I used to be afraid of failure, but now I understand that hard work is a process of learning and growth. I will focus more on my efforts than the results, and I believe that I will eventually reach the realm of mastery.

TABLE 18 (CONTINUE)

Lessons and Objectives	Student feedback after class
Lesson 12: Adaptability and Flexibility in Learning Objectives: Introduce the concept of adaptability and flexibility in learning. It empathizes the importance of being open-minded and willing to adjust one's approach to learning in response to new information, changing conditions, or unexpected challenges. Students will explore strategies to enhance their adaptability and flexibility in learning.	**Student I:** Wow, this class is really enlightening! I used to study in the same way, and I was reluctant to change. But the concept of adaptability and flexibility mentioned by the teacher made me realize that learning is actually a process of constant adjustment and optimization. Now I'm trying different learning methods, such as using mind map to organize my notes or discussing problems with my classmates. I feel that the efficiency has improved a lot and learning has become more interesting! **Student J:** This course really helped me open the door to a new world! I used to give up easily when I encountered difficulties, but now I have learned to adjust my strategy flexibly and face challenges more calmly. I benefited a lot from the skills my teacher provided to enhance my adaptability, such as time management, actively seeking feedback, and staying curious. Now I feel more confident in my study, and I can enjoy the fun of it.

CHAPTER 5
CONCLUSIONS AND DISCUSSION

The researcher targeted “A Development of The Learning Model Based on Positive Psychology Approach for Enhancing College Students’ Growth Mindset” research leads to the following conclusions, discussions and suggestions.

5.1 Brief Summary of The Research

5.1.1 Research Objectives

1. To study the definition and components of growth mindset of college students.

2. To develop the learning model based on positive psychology approach for enhancing growth mindset of college students.

3. To evaluate the effectiveness of the learning model based on positive psychology approach for enhancing growth mindset of college students.

5.1.2 Scope of the Research

Phase 1: To study the definition and components of Growth Mindset of college students. Through a literature review and interviews with five experts, the researcher summarized the definition and components of growth mindset. Additionally, during the development of the growth mindset questionnaire for college students, the researcher invited 100 first-year students from Jiangxi Environmental Engineering Vocational College, who had a similar background to the experimental subjects, to participate in a try-out of the questionnaire. 130 questionnaires were distributed and 116 questionnaires were collected, with 100 valid questionnaires and an effective recovery rate of 76.92%.

Phase 2: To develop the learning model based on positive psychology approach for enhancing growth mindset of college students. After reviewing the literature, the researcher spoke with five experts to gain a deeper understanding of the learning model. The development of a positive psychology-based learning model to improve college students' growth mindsets benefited greatly from the insights this

combined data offered. Over the course of six weeks, the suggested learning model included 14 lessons, each lasting 90 minutes. Three IOC experts assessed the content to make sure the learning model worked. The course was improved in response to their input. The researcher tested the learning model on ten first-year college students with backgrounds similar to the final experimental subjects after the expert review. The final version of the learning model course was created after additional modifications were made in response to the try-out participants' feedback.

Phase 3: To evaluate the effectiveness of the learning model based on positive psychology approach for enhancing growth mindset of college students.

Population: There are a total of 784 students enrolled in the Accounting program at Jiangxi Environmental Engineering Vocational College, of which 261 are first-year students.

Sample: Forty first-year Jiangxi Environmental Engineering Vocational College accounting students made up the sample. Based on their lowest growth mindset questionnaire scores, these 40 students were chosen from among the program's 261 first-year students. In order to guarantee that the average scores of the two groups were comparable, the researcher split the students into an experimental group and a control group, each consisting of 20 students.

5.2 Research Hypothesis

College students' growth mindset can be fostered by the implementation of a positive psychology-based learning model. College students' growth mindsets are enhanced by taking part in the positive psychology-based learning model intervention in the classroom.

1. From the pre-test to the post-test and throughout the follow-up period, college students in the experimental group who received the learning model intervention based on the positive psychology approach showed a significant improvement in their growth mindset.

2. During the pre-test, post-test, and follow-up period, college students in the experimental group who received the learning model intervention based on the

positive psychology approach showed a significantly better growth mindset than the control group.

5.3 Research Conclusion

Phase 1: Summary the Definition and Components of Growth Mindset of College Students.

5.3.1 Definition of Growth Mindset

Through the above literature review and expert interviews, we can summarize the definition of growth mindset as follows: Growth mindset refers to the belief that abilities can grow through effort and learning. Individuals with a growth mindset seek challenges, embrace feedback, view failures as opportunities, and show persistence and resilience in their pursuit of mastery.

5.3.2 Components of Growth Mindset of College Students

Through the above literature review and expert interviews, the components of growth mindset can be summarized as follows: (1)belief in the malleability of abilities, (2)persistence in the face of challenges, (3)openness to feedback and learning from criticism, (4)effort as a pathway to mastery, (5)embracing challenges as opportunities for growth, (6)adaptability and flexibility in learning.

5.3.3 Developed a semi-structured interview questionnaire

A learning model based on a positive psychology approach to growth mindset is developed by gathering and analyzing expert opinions through in-depth interviews and expert exchanges. Five education specialists participated in a semi-structured interview with the researcher. The definition and elements of growth mindset, the creation of a learning model based on a positive psychology approach, and other topics are covered in the questionnaire. Relevant information and data are ultimately gathered based on the findings of interviews and literature research, which effectively aids in defining and creating a learning model based on a positive psychology approach.

5.3.4 Development of Growth Mindset Questionnaire

A growth mindset questionnaire was created by the researcher using the information gathered from expert interviews. The questionnaire, which has 60 questions and six growth mindset components, is designed to assess students' levels of each growth mindset component. The researcher asked 100 college students to test the questionnaire and three IOC experts to review it. According to the data, the Growth Mindset Questionnaire for College Students has a reliability score of 0.947 and an IOC expert score of 1.0. There are two sections to the questionnaire: 1) fundamental details; 2) issues pertaining to the growth mindset element.

Phase 2: Development of the learning model based on positive psychology approach for enhancing growth mindset of college students.

(1) Interview stage

The researcher created a positive psychology-based learning model with 14 lesson plans, each with three stages, after conducting in-depth interviews with experts and reviewing relevant literature. (1) Introduction; (2) Process of Learning Activities; (3) Final Thoughts. The duration of each session is 90 minutes. According to the findings, there is a 0.66–1.00 consistency index between the design of the active learning activities and the research objectives. The course consists of two to three 90-minute sessions per week for six weeks. This setup can guarantee full participation in every class, help students develop a growth mindset, and help them grasp the material deeply.

Lead-in: By introducing the teaching topics and relevant background knowledge, the course effectively stimulated students' motivation from the outset, preparing them for subsequent in-depth exploration of growth mindset concepts. This initial engagement captured students' interest in the topic, laying a solid foundation for their active participation in class activities.

Learning activity process: Through interactive activities such as role-playing, group discussions, and problem-solving exercises, students were able to apply growth mindset strategies in real-life scenarios. This experiential learning approach

allowed them to experience firsthand the benefits of persistence, adaptability, and the constructive use of feedback, making them more proactive in addressing challenges in their learning process.

Conclusion: The reflection and consolidation phase helped deepen students' understanding of the learned concepts and facilitated the application of growth mindset principles in their daily behaviors. By reflecting on their own learning experiences, students further recognized the importance of effort and perseverance, reinforcing their belief in the malleability of their abilities.

The teaching materials used include slides, videos and audio, online resources, drawings and various formats. The organization of these educational materials has improved the learning environment and effectively improved the influence and efficiency of teaching methods.

(2) Assessment and adjustment stage

The researcher invited three experts from the International Olympic Committee (IOC) to evaluate the specific content of the lesson plan, and the results showed that all the elements were suitable. According to the expert's suggestion, appropriate adjustments were made to ensure the effectiveness of the teaching experiment.

Before starting the teaching experiment, 10 students from the same background were invited to conduct try-out of the course, and the researcher observed the students' reactions and understood their feedback. And make the final course plan adjustment. In order to achieve the best effect of teaching experiment.

Overall, the active learning model curriculum developed includes the implementation of relevant courses and activities, the provision of professional guidance and support, and the creation of a learning and living environment conducive to growth mindset development. The results of this research stage lay a foundation for the next empirical research. The next step of research will be empirical test to evaluate the actual effect of learning model based on positive psychology approach, and further optimize and improve the curriculum design.

Phase 3: Evaluation of the Effect of the Learning Model Based on the Positive Psychology Approach for Enhancing College Students' Growth Mindset.

The focus of this phase is to evaluate the effectiveness of the learning model designed based on the positive psychology approach in enhancing college students' growth mindset, aiming to test the two research hypotheses. To achieve this, the study adopted a rigorous empirical methodology, including pre-tests, post-tests, and follow-up assessments, to systematically measure the impact of the learning model on various components of students' growth mindset.

To comprehensively assess the effectiveness of the learning model, this study utilized the Growth Mindset Questionnaire developed in the previous phase, which consists of 60 items covering the six components of the growth mindset. Initially, a pre-test was conducted on both the experimental and control groups to establish a baseline measurement of their growth mindset levels. This step not only laid the foundation for subsequent analysis of the intervention's effects but also ensured that there were no significant differences in growth mindset levels between the experimental and control groups at the outset, thereby validating the research hypotheses.

After the six-week intervention, a post-test was administered to capture the immediate impact of the learning model based on the positive psychology approach on students' growth mindset. Following this, a follow-up assessment was conducted one month after the intervention to evaluate the model's long-term effectiveness and to investigate whether the enhanced growth mindset was sustained after the intervention had concluded.

The results of the study provided strong evidence supporting the two research hypotheses. Regarding Hypothesis 1 (i.e., The growth mindset of college students in the experimental group who received the intervention of the learning model based on the positive psychology approach significantly improved from pre-test to post-test and during the follow-up period), data analysis indicated that the growth mindset of the experimental group significantly increased after the intervention. This increase was observed across all six components of the growth mindset, including belief in the

malleability of abilities, persistence in the face of challenges, openness to feedback and learning from criticism, effort as a pathway to mastery, embracing challenges as opportunities for growth, and adaptability in learning. The results of both the post-test and the follow-up assessment confirmed that the students maintained a high level of growth mindset after the intervention, thereby verifying Hypothesis 1, indicating that the positive psychology-based learning model has both immediate and long-term positive effects.

For Hypothesis 2 (i.e., The growth mindset of college students in the experimental group who received the intervention of the learning model based on the positive psychology approach significantly improved than the control group during pre-test, post-test, and follow-up period), the results similarly provided support. The post-test results showed that the growth mindset scores of the experimental group were significantly higher than those of the control group, and this difference persisted in the follow-up assessment. This finding suggests that the intervention effects of the positive psychology-based learning model not only surpass those of traditional teaching methods in the short term but also have a lasting impact on students' growth mindset.

The study's findings clearly demonstrate the significant effectiveness of the learning model based on the positive psychology approach in enhancing college students' growth mindset. The Lead-in, Learning Activity Process, and Conclusion stages in each session provided a comprehensive learning experience for the students, facilitating their gradual internalization of growth mindset principles.

The study's results not only align with previous research, such as the work of Paunesku et al. (2015) on the positive impact of mindset interventions on students' academic performance, but also extend the literature by demonstrating the specific effectiveness of a structured learning model based on the positive psychology approach in cultivating students' growth mindset. The continuous improvement observed in the experimental group after the intervention indicates that the advantage of this learning model lies in its combination of positive psychology principles with

interactive learning strategies, enabling students to experience the power of a growth mindset in real learning contexts.

In the long run, the effectiveness of this learning model suggests that educational strategies grounded in positive psychology can not only improve students' academic performance but also provide sustained support for their psychological growth, fostering resilience and a proactive attitude when facing future challenges. These findings offer practical guidance for educators, indicating that integrating positive psychology into teaching practices can help create a learning environment conducive to students' potential development and mindset transformation.

5.4 Discussion

5.4.1 Discussion of the Definition and Components of College Students' Growth Mindset.

Based on a comprehensive literature review and expert interviews, this study systematically defined the concept of a growth mindset among college students and identified six key components: belief in the malleability of abilities, persistence in the face of challenges, openness to feedback and learning from criticism, effort as a pathway to mastery, embracing challenges as opportunities for growth, and adaptability and flexibility in learning. The definition put forward aligns closely with Carol Dweck's (2006) foundational work on growth mindset, which emphasizes that abilities and intelligence are not fixed but can be developed through effort and learning.

The growth mindset concept was defined through a review of multiple studies, which showed a general consensus on its definition, with Dweck being the most cited researcher. Dweck's conceptualization of growth mindset forms the basis of this study, highlighting the belief that one’s abilities can be cultivated over time through dedication and hard work. This definition was supported by expert interviews, which reinforced that growth mindset is characterized by the ability of students to see their capabilities as improvable through effort, learning, and resilience.

In terms of the components of growth mindset, according to the literature review, there are six primary components: (1) Belief in the Malleability of Intelligence, (2)

Embracing Challenges, (3) Valuing Effort as a Pathway to Mastery, (4) Learning from Criticism and Feedback, (5) Resilience and Overcoming Setbacks, and (6) Being Inspired by Others' Success (Dweck, 2006). Similar to these, other researchers like Liu Zhijian (2018) and Chen Haiyan (2022) pointed out that growth mindset involves the capacity to stay open and flexible when facing challenges, and to adapt positively to change. This highlights that a growth mindset is not limited to the belief in intelligence malleability, but also involves an adaptive approach towards obstacles and challenges, which is critical in the learning environment.

Through expert interviews, further nuances emerged in the understanding of growth mindset components. Three experts in the field of educational psychology were consulted, and their insights aligned well with the literature review findings. For instance, Expert 1 mentioned that college students' growth mindset can be analyzed from four aspects: learning self-efficacy, psychological toughness, achievement motivation, and perseverance. Expert 2 emphasized that growth mindset also impacts individuals' learning, life, and career, thereby helping to stimulate their potential. This aligns with Zhang Wei's (2020) view that a growth mindset is a positive cognitive approach, allowing individuals to remain optimistic and confident in the face of challenges.

Belief in the Malleability of Abilities was emphasized by both the literature review and expert feedback as the foundation of growth mindset. It aligns with Dweck's (2006) notion that intelligence is not fixed but can grow with effort. The experts interviewed also affirmed this belief as crucial for fostering resilience in educational contexts.

Persistence in the Face of Challenges was discussed as a key factor in promoting resilience among students. In accordance with Dweck, Walton, and Cohen (2014), this study found that students with a growth mindset are more likely to embrace challenges rather than shy away from them. Experts agreed that instilling perseverance in students is essential, especially within the Chinese educational context where cultural values like diligence are deeply rooted.

Openness to Feedback and Learning from Criticism was highlighted as a critical component that allows students to grow continuously by embracing constructive feedback. This aspect is supported by Schunk and DiBenedetto (2016), who noted that students who view feedback as a growth tool are better positioned to improve. The experts also mentioned the importance of creating an environment where students feel comfortable receiving and acting upon feedback.

Effort as a Pathway to Mastery was another essential component, identified by both literature and expert opinions as central to developing a growth mindset. Blackwell, Trzesniewski, and Dweck (2007) demonstrated that students who value effort tend to achieve higher academic success, which was echoed by the experts who underscored the importance of cultivating effort-driven learning environments.

Embracing Challenges as Opportunities for Growth reflects a student's approach to viewing difficulties as learning opportunities. Both literature, such as studies by Paunesku et al. (2015), and expert interviews indicated that encouraging students to reframe challenges positively can lead to significant improvements in learning outcomes.

Adaptability and Flexibility in Learning were also cited as key components of growth mindset by both literature and experts. Lin Chongde (2016) pointed out that having positive cognition and a willingness to adapt are crucial for personal growth. Similarly, the experts emphasized that adaptability is increasingly essential given the rapidly changing educational landscape and societal expectations.

The findings of this study both align with and extend prior research on growth mindset. For example, the current study supports Williams' (2018) findings on the cultural dimensions of growth mindset by highlighting the role of cultural values, such as collectivism and diligence, in the Chinese educational context. Additionally, Taylor's (2020) work on integrating emotional and psychological factors into growth mindset development is consistent with the emphasis on self-efficacy, resilience, and positive emotional experiences within this study.

However, some divergences from existing literature were noted. For instance, while prior research (e.g., Paunesku et al., 2015) found that growth mindset interventions generally reduced fear of failure, this study observed that a subset of students continued to exhibit avoidance behaviors. This discrepancy could be attributed to individual differences in educational backgrounds or societal expectations regarding success and failure, which were not extensively explored in previous studies.

By systematically defining the concept of a growth mindset and its components, this research provides a concrete framework that educators can use to design interventions. For example, emphasizing adaptability and resilience suggests that educators should create environments that not only teach these skills but also allow students to practice them in real-life settings. The emphasis on the malleability of abilities and the importance of effort also underscores the need for educators to build a culture that values persistence and learning from failure, thus fostering an overall growth-oriented approach to learning.

5.4.2 Discussion of Developing a Learning Model Based on Positive Psychology Approach for Enhancing the Growth Mindset of College Students.

The development of the learning model based on a positive psychology approach represents a core contribution of this research, designed to foster growth mindset among college students through structured interventions. This model, comprised of 14 sessions, integrates several key principles of positive psychology: positive emotions, self-efficacy, resilience, and positive relationships. Each session was strategically designed to enhance different aspects of the growth mindset through diverse activities such as role-playing, group discussions, and reflective exercises, thereby promoting both emotional well-being and cognitive development in students.

Incorporating positive emotions into the learning model was critical for creating an engaging and supportive learning environment. Positive emotions are foundational in motivating students and helping them view challenges as opportunities rather than threats. In each session, the Lead-In phase involved activities designed to evoke positive emotions, such as gratitude exercises, group celebrations of achievements, or

setting intentions for positive learning experiences. This approach aligns with Seligman's (2011) research on flourishing, which posits that focusing on positive emotions can enhance resilience and well-being—both of which are core to a growth mindset. By emphasizing positive experiences and reframing challenges optimistically, students were more likely to engage deeply with the learning material. The benefit of focusing on positive emotions was apparent as students showed greater enthusiasm and a proactive attitude towards learning. This focus was consistent with Taylor (2020), who found that positive psychology interventions improve emotional well-being and promote sustained engagement.

Self-efficacy, defined as the belief in one's ability to achieve specific goals, was actively promoted throughout the learning model. Activities such as goal-setting, monitoring progress, and celebrating small victories were incorporated to bolster students' self-efficacy. For instance, during the Learning Activities phase, students participated in tasks that required incremental goal-setting and reflection on their personal growth. These exercises drew upon Bandura's (1997) concept of self-efficacy, demonstrating to students that their abilities can be developed with persistent effort. Role-playing scenarios, where students faced simulated challenges and were supported through guided problem-solving, allowed them to experience success in a controlled setting, reinforcing their belief in their capabilities. This approach was effective in helping students perceive themselves as competent learners capable of overcoming difficulties, as evidenced by increased engagement and motivation. This aligns with the findings of Paunesku et al. (2015), which showed that mindset interventions can boost students' self-belief, leading to better learning outcomes.

Building resilience was another core objective of the learning model. Resilience, the ability to recover from setbacks, was nurtured through reflective exercises and resilience-building activities integrated into each session. Drawing on Masten's (2001) research, activities like journaling prompted students to reflect on past challenges and the ways they overcame them. This reflective practice helped students internalize resilience as an essential part of the learning process, reinforcing the notion

that setbacks are not failures but valuable learning opportunities. Resilience was also developed through scenario-based learning, where students tackled progressively more challenging tasks within a supportive group setting. These activities aimed to help students reframe their perception of failure, viewing it instead as a stepping stone for growth. This approach mirrors Yeager et al. (2019), who found that reflective practices that encourage students to consider personal growth are effective in enhancing resilience.

The promotion of positive relationships played a significant role in the effectiveness of the learning model. Based on Vygotsky's (1978) social constructivism theory, the model emphasized learning as a social process where interaction with peers enhances cognitive and emotional development. Group discussions, collaborative problem-solving exercises, and peer feedback sessions were crucial components of the Learning Activities phase. These activities fostered an environment of mutual support, where students could share their experiences, learn from each other, and provide constructive feedback. This collaborative approach not only built strong peer relationships but also promoted openness to feedback, a critical aspect of growth mindset. As students felt more connected and supported, they were more likely to engage openly in learning activities and take risks without fear of judgment. This finding is consistent with the work of Seligman & Csikszentmihalyi (2000), who argued that positive relationships are integral to well-being and personal development.

One of the primary strengths of this model is its structured yet flexible design, which effectively balances theoretical concepts with practical activities. By incorporating positive psychology principles into experiential learning, the model ensured that students were not only cognitively engaged but also emotionally invested. Activities such as scenario simulations and reflective journaling allowed students to actively confront their fears, work through discomfort, and celebrate small successes, which helped them develop a resilient and growth-oriented mindset. However, not all students responded uniformly—while many showed significant improvements, some continued to exhibit fear of failure. This divergence suggests the influence of cultural perceptions of

failure and success, especially in the context of Chinese education, where high performance expectations can sometimes contribute to anxiety. This aligns with Chen & Wong (2015), who noted that educational interventions need to be sensitive to cultural differences to be fully effective.

The choice of a positive psychology approach is in alignment with the core tenets of a growth mindset, focusing on the strengths and potential of each individual. The integration of positive emotions, self-efficacy, resilience, and positive relationships into the learning model helped cultivate a supportive environment where students were encouraged to grow both academically and personally. This model thus not only contributed to enhancing students' growth mindset but also provided them with tools to develop a proactive, resilient, and optimistic outlook towards challenges. Nevertheless, further investigation into the duration and sustainability of the intervention's impact is warranted, as suggested by Yeager and Dweck (2012), to ensure that the positive changes observed can be maintained over the long term.

5.4.3 Discussion of Evaluating the Effect of the Learning Model Based on Positive Psychology Approach for Enhancing College Students' Growth Mindset.

Hypothesis 1: The growth mindset of college students in the experimental group who received the intervention of the learning model based on the positive psychology approach significantly improved from pre-test to post-test and during the follow-up period.

The first hypothesis suggested that the growth mindset of college students in the experimental group who received the positive psychology based learning model intervention would improve from the pre-test to the post-test and sustain this improvement in the follow-up period. The results of this study supported this hypothesis, as there was a clear improvement in the growth mindset scores of students in the experimental group, particularly after the intervention, and the gains were sustained during the follow-up period. This significant improvement can be attributed to the integration of positive psychology principles, including positive emotions, self-efficacy, resilience, and positive relationships.

The introduction of positive emotions played a critical role in enhancing students' growth mindset. During each session's Lead-In phase, students engaged in activities such as gratitude exercises, celebrating achievements, and setting positive learning intentions to evoke positive emotions. These activities helped maintain higher levels of motivation and engagement, allowing students to face challenges with a more optimistic attitude. Seligman (2011) suggested that focusing on positive emotions can enhance resilience and well-being, both of which are core components of a growth mindset. The results of this study similarly demonstrated that students in the experimental group displayed greater enthusiasm and a proactive approach to learning, consistent with Taylor (2020), who found that positive psychology interventions improve emotional well-being and promote sustained engagement.

The significant improvement in the growth mindset scores of the experimental group can also be attributed to the enhancement of self-efficacy. The learning model helped students gradually build confidence in their abilities through goal-setting, progress reflection, and celebrating small achievements. Bandura (1997) emphasized that self-efficacy is a key factor influencing motivation and perseverance. Through learning activities such as role-playing and scenario simulations, students experienced positive success when faced with challenges, which in turn enhanced their confidence in overcoming difficulties. This finding aligns with Paunesku et al. (2015), who demonstrated that growth mindset interventions can enhance students' self-belief, leading to increased learning achievements.

The sustainability of the intervention's effects is closely linked to the model's emphasis on cultivating resilience. Resilience, a critical component of positive psychology, was emphasized throughout the learning model. Through reflective exercises (such as journaling) and simulated challenges, students came to understand that setbacks are an inevitable part of learning and an opportunity for growth. Masten (2001) highlighted the importance of resilience in overcoming adversity, and the findings of this study similarly suggest that reflective practices helped students internalize resilience, reinforcing a growth-oriented approach to challenges. Yeager et al. (2016)

also found that sustained reflective engagement could convert growth mindset interventions into long-term behavioral changes.

Hypothesis 2: The growth mindset of college students in the experimental group who received the intervention of the learning model based on the positive psychology approach significantly improved than the control group during pre-test, post-test, and follow-up period.

The second hypothesis proposed that college students in the experimental group would score significantly higher on the growth mindset scale in the pre-test, post-test, and follow-up assessments compared to the control group. The results supported this hypothesis, with the experimental group consistently outperforming the control group in both post-test and follow-up assessments. This indicates that the intervention had a more significant and lasting impact on the growth mindset development of the experimental group.

One of the reasons for the experimental group's significantly higher scores compared to the control group was the introduction of interactive learning activities. Activities such as role-playing and scenario simulations provided practical opportunities for students to apply growth mindset strategies. These experiential learning activities allowed students to confront real-life challenges and practice their responses in a supportive environment, thereby enhancing their adaptability and resilience. Paunesku et al. (2015) demonstrated that practical, interactive interventions are more effective in establishing growth mindset beliefs, particularly in fostering persistence and adaptive problem-solving strategies. The findings of this study are consistent with this view, as students in the experimental group consistently improved through real-world challenges and feedback.

Additionally, reflective exercises in the learning model helped deepen students' understanding of growth mindset concepts. Through these exercises, students were prompted to evaluate their learning processes, identify successful strategies, and recognize areas for improvement. Reflective capacity is crucial for turning learning into long-term behavioral change, as highlighted by Schon (1983) in his theory of reflective

practice. Therefore, the experimental group's sustained development of a growth mindset in the follow-up assessments can be largely attributed to these intentional reflective practices.

The improvement seen in the experimental group was also influenced by the emphasis on fostering positive relationships. Based on Vygotsky's (1978) social constructivism theory, this study provided students with a platform for peer learning and support through group discussions and collaborative tasks. This supportive peer interaction not only enhanced students' cognitive development but also promoted their openness to feedback and cooperative problem-solving, both of which are critical for developing a growth mindset. The findings of this study align with Seligman & Csikszentmihalyi (2000), who emphasized the importance of positive relationships for well-being and personal development. Students in the experimental group showed greater enthusiasm for participation in such an encouraging environment, leading to increased resilience and learning motivation.

In contrast, the control group did not show significant improvement in their growth mindset during the assessment periods, highlighting the limitations of traditional teaching methods. Conventional education often emphasizes fixed academic achievements while neglecting the development of psychological resilience and adaptability. In comparison, the experimental group benefited from the positive psychology approach, which emphasized growth through effort, learning from failures, and adapting to challenges—all core tenets of positive psychology. Paunesku et al. (2015) noted that traditional educational approaches often overlook the psychological support that students need when faced with setbacks, while the positive psychology intervention in this study addressed this gap.

The sustained gains observed in the experimental group during the follow-up assessment can be attributed to repeated practice and positive reinforcement during the intervention. Through active learning and reflective practices, students were able to continuously apply and reassess their growth mindset strategies, reinforcing their belief in the malleability of abilities. This finding is consistent with Yeager and Dweck (2012),

who argued that mindset interventions are most effective when they encourage students to actively practice and internalize growth mindset principles. In contrast, the control group, which did not receive similar interventions, showed no significant improvement in growth mindset over time, particularly when faced with challenges or failures. This discrepancy further emphasizes the importance of structured, sustained interventions that provide ongoing opportunities for students to engage with growth mindset strategies in a practical and meaningful way.

In conclusion, the learning model based on a positive psychology approach effectively promoted the growth mindset of college students by integrating key principles of positive emotions, self-efficacy, resilience, and positive relationships. These interventions not only helped students exhibit significant cognitive and attitudinal changes in the short term but also positively influenced their long-term approaches to challenges and learning. However, the differences in student responses suggest that future research should further explore the impact of cultural contexts on growth mindset development, as well as determine the optimal length and intensity of interventions to maximize and sustain their effectiveness.

5.5 Research Suggestions

5.5.1 Practical Suggestions

Incorporate Positive Psychology in Educational Practices. Educators in higher education should integrate positive psychology principles into their teaching practices to promote a growth mindset among students. This can be achieved by creating a learning environment that emphasizes self-efficacy, resilience, and the acceptance of failure as a natural part of the learning process. Classroom activities such as role-playing, group discussions, and reflection exercises should be utilized to encourage students to engage with challenges and view feedback as an opportunity for growth.

Implement the Positive Psychology-Based Learning Model. The learning model developed in this study has demonstrated effectiveness in enhancing students' growth mindset. Educational institutions should consider adopting this model and

adapting its content to suit their specific student populations. Training programs for educators could be introduced to familiarize them with positive psychology principles and equip them with the skills to implement the model effectively. Additionally, ongoing support and resources should be provided to facilitate the incorporation of these practices into regular curricula.

Personalized Educational Interventions. Recognizing that students exhibit varied responses to challenges and feedback; educational interventions should be tailored to meet individual needs. For instance, students who show a tendency to avoid challenges may benefit from targeted encouragement and structured opportunities to take small, manageable risks. Conversely, students who are more open to feedback should be guided to set progressively more challenging learning goals. Personalized approaches will help optimize the effectiveness of the intervention and support diverse learning styles.

Establish Ongoing Feedback and Monitoring Mechanisms. To reinforce students' growth mindset over time, educational institutions should implement continuous feedback mechanisms. Regular assessments, one-on-one counseling, and peer support systems can provide students with timely guidance and reinforce their commitment to a growth-oriented approach. Longitudinal monitoring of students' progress can also offer valuable data to further refine and enhance the learning model.

5.5.2 Future Research Suggestions

Expand Research Scope to Explore Cross-Cultural Applicability. Future research should investigate the applicability of the learning model across different cultural and educational contexts. By conducting comparative studies involving diverse student populations, researchers can explore how cultural factors influence the adoption and development of a growth mindset. This expanded scope will also contribute to refining the model to accommodate varying educational environments.

Strengthen Longitudinal Studies to Assess Sustainability. To better understand the long-term impact of the learning model, future studies should employ extended follow-up periods to track changes in students’ growth mindset over time.

Such research could provide insights into the factors that sustain mindset development and inform strategies for maintaining positive outcomes in the long run. It is also essential to examine the role of external influences, such as family support and social environment, in shaping the durability of the intervention's effects.

Explore Synergistic Effects of Combined Interventions. While this study focused on an intervention rooted in positive psychology, future research could investigate the potential benefits of combining this approach with other psychological interventions, such as cognitive-behavioral therapy. By exploring the interplay between different intervention strategies, researchers can identify more comprehensive methods for fostering a growth mindset that addresses both cognitive and emotional aspects of learning.

Identify Influencing Factors of Intervention Effectiveness. Given the variation in students' responses to the intervention, future research should explore the factors influencing the effectiveness of growth mindset interventions. Variables such as individual personality traits, learning environments, teaching methods, and prior experiences may play significant roles in shaping students' receptivity to growth mindset principles. By understanding these influences, researchers and educators can design more targeted interventions that cater to diverse student needs.

Develop Multidimensional Assessment Tools. To capture the multifaceted nature of the growth mindset, future research should focus on developing a comprehensive set of assessment tools that incorporate both quantitative and qualitative measures. Such tools could assess not only cognitive beliefs but also behavioral and emotional aspects of the growth mindset, providing a more holistic evaluation of intervention outcomes. Additionally, using mixed-methods approaches can yield richer insights into how students internalize and apply growth mindset concepts.

By implementing these practical suggestions and pursuing these research directions, educators and researchers can further advance the theoretical understanding and practical application of growth mindset development in higher education. The integration of positive psychology principles into educational practices

has the potential to create a more adaptive, resilient student population equipped to navigate academic and life challenges effectively.

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APPENDIX

APPENDIX A

1 List of Interviewed Experts and Experts for Research Tool Review

Name	Title	Specialty
Sittipong Wattananonsakul	Associate Professor	Psychology
Asama Campiranon	Lecturer	Counseling Psychology
Patcharaporn Srisawat	Associate Professor	Guidance Psychology
Jitra Dudsdeewaytha	Associate Professor	Counseling Psychology
Sittiporn Kramnnon	Instructor	Applied Psychology

2 List of IOC Experts assessing the Growth Mindset Questionnaire for College students

Name	Title	Specialty
Kanchit Saenubol	Instructor	Psychology
Monthira Charupheng	Associate Professor	Educational Psychology
Thammachot Aeamtussana	Instructor	Educational Psychology

3 List of IOC Experts assessing the Learning Model for Enhancing College Students' Growth Mindset

Name	Title	Specialty
Kanchit Saenubol	Instructor	Psychology
Monthira Charupheng	Associate Professor	Educational Psychology
Sittiporn Kramnnon	Instructor	Applied Psychology

APPENDIX B

Semi-Structured Interview Questionnaire for Interviewing Eligible Respondents

STATEMENT: This semi-structured interview questionnaire is a tool used to interview respondents for the following purposes.

Purpose of the Interview:

1.To define the definition and components of growth mindset among college students in China context.

2.To gain the guidelines for developing an learning models based on positive psychology approach to enhance the growth mindset among college students in China.

3.To gain the guidelines for developing research measurement instruments to evaluate the growth mindset among college students in China.

Section 1: General Information

Name of Expert.....

Educational Background.....

Work Experience.....

Position.....

Organization.....

Specialized Field.....

Date and Time of Interview.....

Section 2: Problem Orientation

Question1) The meaning and components of Growth Mindset among college students in China context.

1.1 In your opinion, what is the definition of growth mindset for college students?

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1.2 According to the literature review, growth mindset has six core components (Belief in the Malleability of Abilities, Persistence in the Face of Challenges, Openness to Feedback and Learning from Criticism, Effort as a Pathway to Mastery, Embracing Challenges as Opportunities for Growth, Adaptability and Flexibility in Learning). Do you think growth mindset with these six components is suitable for Chinese college students?

1.2.1 Belief in the Malleability of Abilities refers to the understanding and conviction that individual abilities, talents, and intelligence are not fixed or static traits, but can be developed, enhanced, and expanded over time through effort, education, and experience.

1.2.2 Persistence in the Face of Challenges refers to the continuous and determined effort to overcome obstacles, difficulties, or setbacks in the pursuit of goals or the acquisition of knowledge and skills. It embodies the resilience and tenacity required to keep moving forward despite encountering problems or failures.

1.2.3 Openness to Feedback and Learning from Criticism refers to the willingness and ability to receive, consider, and constructively use feedback and criticism for personal and professional development.

1.2.4 Effort as a Pathway to Mastery refers to the understanding and belief that consistent and dedicated effort is a fundamental driver in acquiring proficiency, expertise, or mastery in any skill or area of knowledge.

1.2.5 Embracing Challenges as Opportunities for Growth refers to the mindset of viewing difficulties, obstacles, and challenges not as hindrances or threats to success, but as valuable chances for learning, personal development, and skill enhancement.

1.2.6 Adaptability and Flexibility in Learning refers to the capacity and willingness to adjust and modify one's approach to learning in response to new information, changing conditions, or unexpected challenges.

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1.3 In addition to the six components mentioned above, do you think there are other components that reflect the growth mindset of college students in China context? What are they?

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1.4 In response to if there are additional components, what should the behaviors guided by those components you mentioned look like?

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Question2) Guidelines to develop Learning Models Based on Positive Psychology approach for enhancing Growth Mindset among college students in China.

2.1 In your opinion, what is the definition of learning model based on positive psychology approach for college students?

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2.2 Could you provide me with the guidelines for developing an Learning Models Based on Positive Psychology approach to enhance growth mindset among college students in China?

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2.3 What characteristics or steps to provide the contents and activities of Learning Models Based on Positive Psychology approach to enhance growth mindset among college students?

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2.4 In your opinion, are there psychological techniques or other activities that can be used to enhance growth mindset among college students in developing an Learning Models Based on Positive Psychology approach? If so, what kinds of techniques or activities?

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Question3) Guidelines for developing research measurement instruments to evaluate Growth Mindset among college students in China.

3.1 In your opinion, it is suitable to use the Growth Mindset for college students' questionnaire to evaluate the growth mindset among college students in China?

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3.2 Are there other measurements can be used to evaluate the growth mindset of college students in China? If so, what are the measurements?

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APPENDIX C

Summary of the main contents and suggestions of the expert interview

1.1 In your opinion, what is the definition of growth mindset for college students?

Answer: "Growth mindset" refers to a belief or attitude that emphasizes personal growth and development, holding that success does not come from predetermined abilities and traits but rather from effort, learning from mistakes, and developing problem-solving skills. It involves a mindset that believes in the ability to change, grow, and develop continuously, fostering ongoing development and learning to create better outcomes in the future.

1.2 According to the literature review, growth mindset has six core components (Belief in the Malleability of Abilities, Persistence in the Face of Challenges, Openness to Feedback and Learning from Criticism, Effort as a Pathway to Mastery, Embracing Challenges as Opportunities for Growth, Adaptability and Flexibility in Learning). Do you think growth mindset with these six components is suitable for Chinese college students?

1.2.1 Belief in the Malleability of Abilities refers to the understanding and conviction that individual abilities, talents, and intelligence are not fixed or static traits, but can be developed, enhanced, and expanded over time through effort, education, and experience.

1.2.2 Persistence in the Face of Challenges refers to the continuous and determined effort to overcome obstacles, difficulties, or setbacks in the pursuit of goals

or the acquisition of knowledge and skills. It embodies the resilience and tenacity required to keep moving forward despite encountering problems or failures.

1.2.3 Openness to Feedback and Learning from Criticism refers to the willingness and ability to receive, consider, and constructively use feedback and criticism for personal and professional development.

1.2.4 Effort as a Pathway to Mastery refers to the understanding and belief that consistent and dedicated effort is a fundamental driver in acquiring proficiency, expertise, or mastery in any skill or area of knowledge.

1.2.5 Embracing Challenges as Opportunities for Growth refers to the mindset of viewing difficulties, obstacles, and challenges not as hindrances or threats to success, but as valuable chances for learning, personal development, and skill enhancement.

1.2.6 Adaptability and Flexibility in Learning refers to the capacity and willingness to adjust and modify one's approach to learning in response to new information, changing conditions, or unexpected challenges.

Answer: I believe that these six components are appropriate and relevant to the context of Chinese students.

1.3 In addition to the six components mentioned above, do you think there are other components that reflect the growth mindset of college students in China context? What are they?

Answer: I think the six components proposed by the researchers cover everything.

I have some additional suggestions as follows: What I would like to add beyond what the researchers have studied is listening to and learning from criticism. Furthermore, in personal development, when considering the development of a growth mindset, researchers need to consider dimensions related to thinking, beliefs, and behaviors.

1.4 In response to if there are additional components, what should the behaviors guided by those components you mentioned look like?

Answer: In my opinion, I believe that the starting point for someone to have a growth mindset is that the individual must have a positive self-concept, believing in their own worth and ability to overcome obstacles or solve problems on their own, and accepting the reality of what happens. Therefore, behaviors that indicate a person has a growth mindset include being constantly engaged in learning and being adaptable to change under various circumstances.

Question2) Guidelines to develop Learning Models Based on Positive Psychology approach for enhancing Growth Mindset among college students in China.

2.1 In your opinion, what is the definition of learning model based on positive psychology approach for college students?

Answer: Learning model based on positive psychology approach is define as the education for both traditional skills and happiness. This learning system focuses on

developing skills and abilities according to students' preferences or strengths, using positive psychology as a promotive factor, emphasizing psychological principles and students' social well-being as the foundation, hence the concept of positive education.

2.2 Could you provide me with the guidelines for developing an Learning Models Based on Positive Psychology approach to enhance growth mindset among college students in China?

Answer: Designing learning activities using positive psychology to promote a growth mindset involves creating hands-on activities that provide students with direct experiences. Teachers must offer a variety of activities to motivate students, encourage their efforts in learning, and foster self-improvement. The learning process should instill in students the belief that they can develop. Therefore, when designing learning activities, the following considerations should be considered:

1.Teachers stimulate students to anticipate their own success.

2.Teachers must prioritize the overarching goals.

3.Teachers must create a learning environment that emphasizes the thinking process.

4.Teachers engage in assessment and provide feedback.

5.Using psychological techniques such as reinforcement to help students become enthusiastic about learning and feel successful.

6.Activities should focus on getting students to take action, solve problems, and make decisions on their own. Emphasize experiences rather than having students complete worksheets or listen to lectures.

7.In assessment, all dimensions of thinking, beliefs, and demonstrated behaviors should be covered.

2.3 What characteristics or steps to provide the contents and activities of Learning Models Based on Positive Psychology approach to enhance growth mindset among college students?

Answer: The process of promoting a Growth mindset starts with creating clear understanding and awareness among students about the characteristics of having a Growth Mindset and Fixed Mindset. Then, students are trained to plan appropriate goals for themselves and take action. Practical activities that promote Growth mindset should be employed, such as role-playing, case studies, and debates. Feedback is then provided for students to improve and adjust. Finally, students are encouraged to expand or apply what they have learned to promote long-lasting behavior. At each step, positive psychology is used to encourage students to see their own worth, believe in their ability to develop, or create a relaxed classroom atmosphere. Developing a Growth Mindset is a process that takes time and effort, so activities should focus on continuous practice and implementation.

In addition, researchers must be aware of the differences between individuals, largely influenced by upbringing, personal characteristics, and societal factors that

influence individuals' thoughts, beliefs, and behaviors. It is believed that in the context of China, there are students with both Growth mindset and fixed mindset. Students with fixed mindset may need time to change their thoughts and beliefs. Therefore, changing students' perspectives is crucial. However, developing students with a Growth mindset has positive implications for both the students themselves and society. In today's rapidly changing society, individuals with a Growth mindset can adapt and learn new things happily.

2.4 In your opinion, are there psychological techniques or other activities that can be used to enhance growth mindset among college students in developing a Learning Models Based on Positive Psychology approach? If so, what kinds of techniques or activities?

Answer: Psychological techniques used in learning activities can include the following:

1.Positive reinforcement: Providing praise or rewards to reinforce desired behaviors or outcomes in learning. Reinforcement students in what is right and suitable for each individual is about providing the stimuli for students to do what the teacher desires. Reinforcement can be tailored according to the teacher's intentions.

2.Goal setting: Assisting learners in setting specific, achievable goals to work towards in their learning journey. Goal setting is the process of determining the direction of learning, which is a skill individuals use to achieve success both in the short and long term. Educators establish teaching goals, focusing on what interests learners and

setting learning goals that are tailored to the learning criteria. However, these goals have flexibility that educators need to keep open.

3.Self-efficacy enhancement: Encouraging learners to believe in their own abilities to succeed in learning tasks.

4.Mindfulness and relaxation techniques: Teaching learners' practices to reduce stress and enhance focus during learning activities.

5.Cognitive-behavioral strategies: Teaching techniques to challenge negative thoughts and promote positive thinking in learning.

6.Social support: Creating a supportive environment where learners feel connected and motivated to learn.

7.Intrinsic motivation promotion: Emphasizing the value and enjoyment of learning itself rather than external rewards.

8.Stress management and resilience-building: Providing tools to cope with challenges and setbacks in learning.

9.Goal visualization and affirmation: Guiding learners to visualize their goals and affirm their ability to achieve them.

10. Modeling: Being a good role model means creating a positive example for others to emulate, allowing learners to replicate behaviors or skills they wish to develop. Typically, this involves presenting individuals or examples with experience and success in the relevant field or activity as models for learners to observe and follow their methods in problem-solving or developing certain skills. Being a good role model can greatly

enhance motivation and reinforce learners' learning skills, with learning outcomes occurring through perception and resistance to imitating behaviors or skills from others who serve as examples to emulate. Teac hers serve as sources of inspiration and effectively cultivate students' growth mindset. This begins from the very first encounter and continues with e very shared learning experience, fostering a culture of learning where students naturally learn from or emulate their teachers.

11. Mentoring: Teachers serve as mentors, akin to elder siblings, aiding, facilitating, and listening, supporting learners in their learning endeavors.

12. Feedback: Providing feedback is beneficial for both teachers and students, facilitating effective collaborative learning. Therefore, feedback should be given at the appropriate time, ideally immediately after teaching sessions, group meetings, or collaborative activities in the classroom, which are considered the most suitable times. Feedback should be selected to be beneficial for the students' self-development. Teachers should reflect to ensure that students receive feedback realistically to find appropriate ways for self-improvement.

These techniques can be integrated into learning activities to enhance motivation and promote positive learning outcomes.

Psychological theories are related to learning theories, such as Bandura's Social Learning Theory, cognitive Learning Theory, Skinner's Behaviorist Learning Theory, especially concerning reinforcement, and Humanistic Learning Theory. These theories can be applied in designing learning activities and integrating positive

emotions, interests, finding meaning in life, communication and relationships in the classroom, and achieving goals through various teaching techniques, such as cooperative learning, problem-solving as a basis, and project-based learning.

Question3) Guidelines for developing research measurement instruments to evaluate Growth Mindset among college students in China.

3.1 In your opinion, it is suitable to use the Growth Mindset for college student's questionnaire to evaluate the growth mindset among college students in China?

Answer: In assessing growth mindset, questionnaires can be used. There are many research studies that utilize questionnaires to assess growth mindset. For example, SARANYU PONGPRASERTSIN (2021) conducted a study on the development of an enhancement program to promote the growth mindset of student teachers in a private university, in which questionnaires were used to collect data.

http://ir-ithesis.swu.ac.th/dspace/bitstream/123456789/1764/1/gs601120008.pdf

3.2 Are there other measurements can be used to evaluate the growth min[illegible] of college students in China? If so, what are the measurements?

Answer: The growth mindset assessment can utilize various tools besides questionnaires. Researchers can employ observational methods to record student behaviors, use reflective surveys, and scoring rubrics. In assessing growth mindset, data can be collected both quantitatively and qualitatively simultaneously to obtain the most comprehensive and realistic information.

APPENDIX D

Questionnaire on Growth Mindset of College students in Jiangxi Environmental Engineering Vocational College

Dear students,

Thank you for your participation in this survey! This survey is conducted anonymously for academic research purposes, aiming at promoting college students' growth mindset. Please fill in the questionnaire carefully and truthfully. There is no right or wrong in this questionnaire. We will keep all your information confidential. Thank you for your support!

Part 1: General information.

1. Gender:

2. College major:

3. Grade:

Part 2: Measurement answer description

Only one answer can be selected for each question in this test. Please choose the answer that best suits your actual situation and tick "√" in the table. (1 = Strongly Disagree, 2= disagree, 3= Neutral, 4= agree, 5= Strongly Agree)

Items	1	2	3	4	5
1.I believe that intelligence can be developed like a muscle.					
2.No matter where I start, I can always improve my abilities through effort.					
3.I think of my brain as something that can grow and change.					
4.Learning new things can significantly increase my intelligence.					

5.I am confident that I can develop skills that I currently struggle with.					
6.I view my abilities as expandable and not fixed.					
7.Challenges help me grow my abilities.					
8.I can become talented in areas I am not naturally good at.					
9.My potential to learn and grow is not limited.					
10.Even if I'm not good at something, I can always get better with practice.					
11.I keep trying even when I face difficulties in my studies.					
12.I view academic challenges as a normal part of the learning process.					
13.Setbacks in my learning do not discourage me; they motivate me.					
14.I am persistent in working through complex problems.					
15.When I fail, I learn what I need to do differently next time.					
16.I believe that perseverance is key to success in academics.					
17.I don't give up easily on challenging tasks.					
18.I feel determined to overcome academic obstacles.					
19.Difficulties in learning make me even more committed.					
20.I don’t shy away from studying hard topics.					
21.I see feedback as an opportunity to grow.					
22.I actively seek out feedback on my academic work.					
23.Constructive criticism is valuable to my learning process.					
24.I use negative feedback to improve my future performance.					
25.I am open to changing my approach based on feedback I receive.					
26.I appreciate when others help me identify areas for improvement.					
27.I reflect on criticism to understand how I can do better.					
28.I see learning from mistakes as crucial to my academic growth.					
29.I am willing to ask for feedback.					

30.Feedback helps me understand things from a different perspective.					
31.The harder I work at something, the better I become.					
32.I value effort because it leads to learning and improvement.					
33.Effort is more important than innate ability for academic success.					
34.I believe continuous effort will lead to mastery in my studies.					
35.I am willing to put in extra effort to understand challenging material.					
36.Hard work usually pays off in better understanding.					
37.I invest effort in my studies because it leads to significant growth.					
38.Putting effort into learning feels rewarding.					
39.I am committed to putting in the necessary effort to excel academically.					
40.I recognize that mastering a subject takes time and effort.					
41.I see challenging tasks as opportunities to improve my skills.					
42.I get excited about tackling difficult subjects.					
43.I feel that overcoming challenges leads to significant personal growth.					
44.I am motivated by challenging academic tasks.					
45.Challenging courses are an opportunity to stretch my abilities.					
46.I see difficult assignments as a chance to learn something new.					
47.I find that tackling challenges helps me grow intellectually.					
48.I approach difficult topics with a positive attitude.					
49.I use challenging situations as opportunities to develop my skills.					
50.I view academic hurdles as chances to prove my capabilities.					
51.I can adjust my study methods when they are not effective.					
52.I am open to trying new approaches to learning.					
53.I adapt my learning style to different subjects.					
54.I can change my way of thinking if the situation requires it.					

55.Flexibility in learning strategies is a strength of mine.					
56.I find adapting to new learning environments exciting.					
57.I am comfortable with exploring various ways to learn a subject.					
58.I am quick to adjust my approach when facing new challenges.					
59.I am willing to experiment with different study techniques.					
60.I am capable of learning in various settings and formats.					

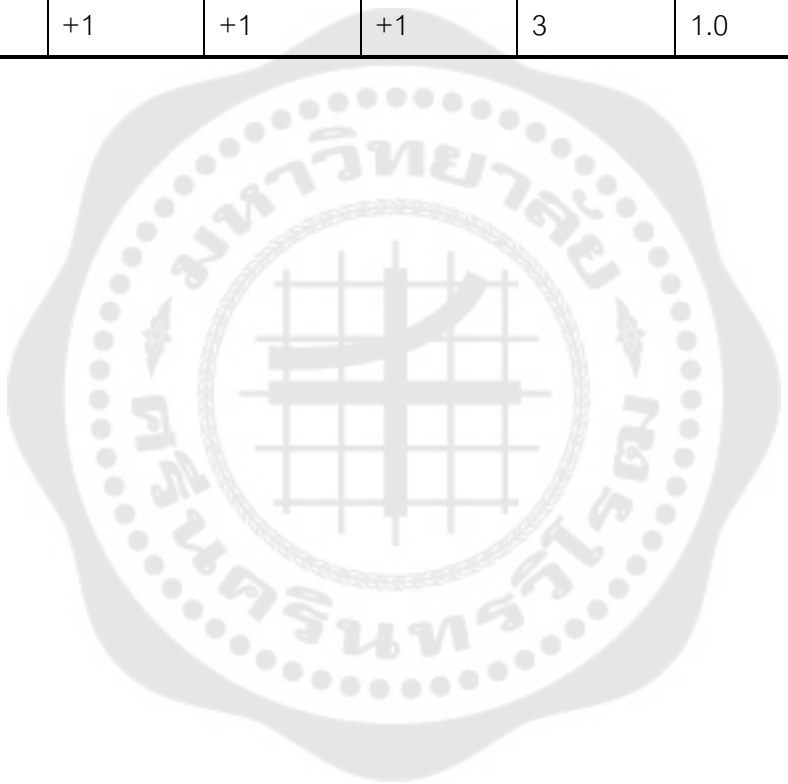
APPENDIX E

Review of Research Instruments: Growth Mindset Questionnaire for College Students

NO.	Experts' Evaluation Score			Total	IOC	Summary
	1	2	3			
1	+1	+1	+1	3	1.0	Available
2	+1	+1	+1	3	1.0	Available
3	+1	+1	+1	3	1.0	Available
4	+1	+1	+1	3	1.0	Available
5	+1	+1	+1	3	1.0	Available
6	+1	+1	+1	3	1.0	Available
7	+1	+1	+1	3	1.0	Available
8	+1	+1	+1	3	1.0	Available
9	+1	+1	+1	3	1.0	Available
10	+1	+1	+1	3	1.0	Available
11	+1	+1	+1	3	1.0	Available
12	+1	+1	+1	3	1.0	Available
13	+1	+1	+1	3	1.0	Available
14	+1	+1	+1	3	1.0	Available
15	+1	+1	+1	3	1.0	Available
16	+1	+1	+1	3	1.0	Available
17	+1	+1	+1	3	1.0	Available
18	+1	+1	+1	3	1.0	Available
19	+1	+1	+1	3	1.0	Available
20	+1	+1	+1	3	1.0	Available
21	+1	+1	+1	3	1.0	Available
22	+1	+1	+1	3	1.0	Available
23	+1	+1	+1	3	1.0	Available
24	+1	+1	+1	3	1.0	Available

25	+1	+1	+1	3	1.0	Available
26	+1	+1	+1	3	1.0	Available
27	+1	+1	+1	3	1.0	Available
28	+1	+1	+1	3	1.0	Available
29	+1	+1	+1	3	1.0	Available
30	+1	+1	+1	3	1.0	Available
31	+1	+1	+1	3	1.0	Available
32	+1	+1	+1	3	1.0	Available
33	+1	+1	+1	3	1.0	Available
34	+1	+1	+1	3	1.0	Available
35	+1	+1	+1	3	1.0	Available
36	+1	+1	+1	3	1.0	Available
37	+1	+1	+1	3	1.0	Available
38	+1	+1	+1	3	1.0	Available
39	+1	+1	+1	3	1.0	Available
40	+1	+1	+1	3	1.0	Available
41	+1	+1	+1	3	1.0	Available
42	+1	+1	+1	3	1.0	Available
43	+1	+1	+1	3	1.0	Available
44	+1	+1	+1	3	1.0	Available
45	+1	+1	+1	3	1.0	Available
46	+1	+1	+1	3	1.0	Available
47	+1	+1	+1	3	1.0	Available
48	+1	+1	+1	3	1.0	Available
49	+1	+1	+1	3	1.0	Available
50	+1	+1	+1	3	1.0	Available
51	+1	+1	+1	3	1.0	Available
52	+1	+1	+1	3	1.0	Available

53	+1	+1	+1	3	1.0	Available
54	+1	+1	+1	3	1.0	Available
55	+1	+1	+1	3	1.0	Available
56	+1	+1	+1	3	1.0	Available
57	+1	+1	+1	3	1.0	Available
58	+1	+1	+1	3	1.0	Available
59	+1	+1	+1	3	1.0	Available
60	+1	+1	+1	3	1.0	Available



APPENDIX F

Reliability value of questionnaire measurement

Item	r	Appliance	Item	r	Appliance	Item	r	Appliance
1	0.541	Appliance	21	0.524	Appliance	41	0.591	Appliance
2	0.582	Appliance	22	0.558	Appliance	42	0.537	Appliance
3	0.533	Appliance	23	0.593	Appliance	43	0.525	Appliance
4	0.547	Appliance	24	0.528	Appliance	44	0.571	Appliance
5	0.561	Appliance	25	0.537	Appliance	45	0.573	Appliance
6	0.528	Appliance	26	0.524	Appliance	46	0.581	Appliance
7	0.554	Appliance	27	0.554	Appliance	47	0.546	Appliance
8	0.594	Appliance	28	0.523	Appliance	48	0.558	Appliance
9	0.547	Appliance	29	0.541	Appliance	49	0.549	Appliance
10	0.513	Appliance	30	0.593	Appliance	50	0.571	Appliance
11	0.552	Appliance	31	0.528	Appliance	51	0.582	Appliance
12	0.538	Appliance	32	0.554	Appliance	52	0.524	Appliance
13	0.541	Appliance	33	0.516	Appliance	53	0.543	Appliance
14	0.528	Appliance	34	0.552	Appliance	54	0.552	Appliance
15	0.543	Appliance	35	0.533	Appliance	55	0.561	Appliance
16	0.574	Appliance	36	0.524	Appliance	56	0.564	Appliance
17	0.551	Appliance	37	0.571	Appliance	57	0.568	Appliance
18	0.523	Appliance	38	0.514	Appliance	58	0.582	Appliance
19	0.541	Appliance	39	0.539	Appliance	59	0.514	Appliance
20	0.528	Appliance	40	0.514	Appliance	60	0.582	Appliance

As can be seen from the above table, the reliability coefficient value is 0.947.

APPENDIX G

Review Results of the 14-Session Teaching Plan for the Growth Mindset Learning Model

NO.	Experts' Evaluation Score			Total	IOC	Summary
	1	2	3			
1	+1	+1	+1	3	1.0	Available
2	+1	+1	+1	3	1.0	Available
3	+1	+1	+1	3	1.0	Available
4	+1	+1	+1	2	1.0	Available
5	+1	+1	+1	3	1.0	Available
6	+1	+1	+1	3	1.0	Available
7	+1	+1	+1	3	1.0	Available
8	+1	+1	+1	3	1.0	Available
9	+1	+1	+1	3	1.0	Available
10	+1	+1	+1	3	1.0	Available
11	+1	+1	+1	3	1.0	Available
12	+1	+1	+1	3	1.0	Available
13	+1	+1	+1	3	1.0	Available
14	+1	+1	+1	3	1.0	Available

Note: If the conformity index is judged from 0.50 or above, it is considered qualified and can be used.

APPENDIX H

Learning Model Format

Times	Learning Activity	Objective	Technique	Positive Psychology Approach
1	Orientation	1.To familiarize students with the course structure and goals. 2.To introduce the concept of growth mindset and its importance. 3.To create a positive and engaging classroom environment. 4.To build a foundation for future lessons by establishing a supportive learning community.	Course Overview, Introduction Ice-breaking Activity, Group Discussion, Q&A Session	The session aimed to create positive emotions through icebreakers and group discussions, helping students feel comfortable and supported. Positive relationships were fostered by establishing a learning community, encouraging peer interaction, and promoting optimism regarding their learning journey.
2	Belief in the Malleability of Abilities (Part 1)	1.To understand the concept of the malleability of abilities.	Group Discussion and Sharing, Role-Playing	Self-efficacy was developed through role-playing and sharing experiences, which helped students see their

		2.To recognize the potential for growth through effort and persistence. 3.To explore strategies for developing and enhancing abilities.		ability to grow through persistence and effort. Positive emotions were reinforced by highlighting successes during discussions, and group activities fostered positive relationships.
3	Belief in the Malleability of Abilities (Part 2)	1.To deepen the understanding of the malleability of abilities. 2. To apply strategies for developing and enhancing abilities. 3. To reflect on personal growth experiences and set future goals.	Group Discussion and Sharing, Situation Simulation Activity	
4	Persistence in the Face of Challenges (Part 1)	1.To understand the concept of persistence in the face of	Group Discussion and Sharing, Resilience-	Resilience was the focus, cultivated through simulation and resilience-building exercises that encouraged

		challenges. 2.To recognize the importance of resilience and tenacity. 3.To explore strategies for developing persistence.	Building Exercises	students to face difficulties positively. Group discussions created a supportive environment, enhancing positive relationships and fostering a sense of collective perseverance.
5	Persistence in the Face of Challenges (Part 2)	1.To deepen the understanding of persistence. 2.To apply advanced strategies for maintaining effort and overcoming setbacks. 3.To reflect on personal experiences of persistence and set future goals.	Group Discussion and Sharing, Persistence Simulation Activity	
6	Openness to Feedback and Learning from Criticism (Part 1)	1.To understand the concept of openness to feedback and learning from	Group Discussion and Sharing, Role-Playing Activity,	Self-efficacy was promoted by allowing students to practice receiving constructive criticism through role-playing and

		criticism. 2.To recognize the value of constructive feedback for personal growth. 3.To explore strategies for effectively receiving and using feedback.	Interactive Quiz	feedback simulations. Positive relationships were strengthened through group activities, as students learned to provide and accept feedback constructively.
7	Openness to Feedback and Learning from Criticism (Part 2)	1.To deepen the understanding of openness to feedback. 2.To apply advanced strategies for seeking and using feedback. 3.To reflect on personal experiences with feedback and set future goals.	Group Discussion, Feedback Simulation Activity, Self-Assessment and Goal Setting	
8	Effort as a Pathway to	1.To understand the concept of	Group Discussion	The focus on effort as a pathway to mastery was

	Mastery (Part 1)	effort as a pathway to mastery. 2.To recognize the importance of consistent and dedicated effort in achieving mastery. 3.To explore strategies for maintaining motivation and commitment to effort.	and Sharing, Effort-Tracking Worksheet Activity, Interactive Game	linked to resilience, encouraging students to view effort as integral to success. Self-efficacy was strengthened through effort-tracking and celebrating incremental progress. Mindfulness and visualization exercises promoted positive emotions by helping students focus on their progress rather than setbacks.
9	Effort as a Pathway to Mastery (Part 2)	1. To deepen the understanding of effort as a pathway to mastery. 2.To apply advanced strategies for sustaining effort and overcoming challenges. 3.To reflect on	Group Discussion, Case Study, Effort Simulation Activity, Mindfulness and Visualization Exercise	

		personal experiences with sustained effort and set future goals.		
10	Embracing Challenges as Opportunities for Growth (Part 1)	1.To understand the concept of embracing challenges as opportunities for growth. 2.To recognize the benefits of viewing challenges positively. 3.To explore strategies for reframing challenges and developing resilience.	Group Discussion and Sharing, Challenge-Reframing Exercise, Interactive Role-Playing	Positive emotions were enhanced by reframing challenges optimistically. Resilience was cultivated through creative expression activities, which allowed students to reimagine challenges as growth opportunities. Positive relationships were fostered through group discussions, promoting shared experiences in overcoming difficulties.
11	Embracing Challenges as Opportunities for Growth (Part 2)	1.To deepen the understanding of embracing challenges as opportunities for growth. 2.To apply	Group Discussion and Case Study Analysis, Challenge Simulation	

		advanced strategies for maintaining a positive mindset in the face of challenges. 3.To reflect on personal experiences with challenges and set future goals.	Activity, Creative Expression Exercise	
12	Adaptability and Flexibility in Learning (Part 1)	1.To understand the concept of adaptability and flexibility in learning. 2.To recognize the importance of adjusting learning strategies in response to new information and challenges. 3.To explore strategies for enhancing adaptability and	Group Discussion and Sharing, Adaptability Exercise, Interactive Problem-Solving	Resilience and adaptability were fostered by encouraging students to embrace change and modify their learning approaches. Peer teaching and group problem-solving promoted positive relationships, creating a collaborative learning environment where students supported each other's adaptability.

		flexibility.		
13	Adaptability and Flexibility in Learning (Part 2)	1.To deepen the understanding of adaptability and flexibility in learning. 2.To apply advanced strategies for modifying learning approaches. 3.To reflect on personal experiences with adaptable learning and set future goals.	Group Discussion and Peer Teaching, Learning Flexibility Simulation, Creative Reflection Activity	
14	Summary and Reflection	1.To review and consolidate key concepts from the course. 2.To reflect on personal growth and development throughout the course. 3.To set future	Review of Key Concepts, Personal Reflection Activity, Group Sharing and Discussion, Goal-Setting Activity	The focus was on positive emotions, self-efficacy, and future goal-setting. Reflection activities reinforced students' belief in their ability to grow, while group sharing created positive relationships, helping students acknowledge their progress and build on it.

		goals for continued growth and application of a growth mindset.		

APPENDIX I

The Learning Model Based on Positive Psychology Approach for Enhancing College Students' Growth Mindset

Lesson 1: Orientation

Content

The lesson will begin with an introduction to the course and its objectives, providing students with a clear understanding of what to expect over the next 14 lessons. This will include a detailed explanation of the concept of growth mindset, contrasting it with a fixed mindset and highlighting the benefits of adopting a growth mindset in both personal and academic contexts. An overview of positive psychology approach will follow, emphasizing how these approaches can support the improvement of a growth mindset. The course structure and expectations will be thoroughly discussed to ensure students are aware of the requirements and how they will be evaluated throughout the course. To foster a supportive and engaging classroom environment, ice-breaking activities will be conducted to help students build rapport with one another.

Objective

1. To familiarize students with the course structure and goals.

2. To introduce the concept of growth mindset and its importance.

3. To create a positive and engaging classroom environment.

4. To build a foundation for future lessons by establishing a supportive learning community.

Time

90 Minutes.

Learning Materials

1. PowerPoint presentation on course overview and growth mindset.

2. Name tags and markers for ice-breaking activity.

3. Group discussion prompts.

Learning Activity Step

1.Lead In: Welcome and Introduction (10 minutes)

The researcher will briefly introduce themselves, providing an overview of their background and interest in positive psychology and growth mindset. This introduction sets the tone for the session and helps establish a connection with the students.

2.Learning Activity

(1) Course Overview (15 minutes):

Using a PowerPoint presentation, the researcher will outline the course structure, objectives, and expectations. This will include a discussion on the importance of a growth mindset and how positive psychology approaches will be applied throughout the course. The researcher will engage students by asking questions and encouraging participation to ensure they understand the course outline.

(2) Introduction to Growth Mindset (20 minutes):

The researcher will define growth mindset and its opposite, fixed mindset, providing examples to illustrate these concepts. A discussion on the benefits of adopting a growth mindset in various aspects of life, particularly in academics, will follow. The researcher will use real-life examples and ask students to share their thoughts and experiences.

(3) Ice-breaking Activity (15 minutes):

The researcher will conduct an ice-breaking activity where students introduce themselves and share one personal or academic goal they hope to achieve by the end of the course. Name tags and markers will be used to facilitate this activity. This activity helps build a supportive classroom environment and encourages students to set personal goals.

(4) Group Discussion (15 minutes):

The researcher will divide students into small groups and provide discussion prompts about their initial thoughts on growth mindset. The groups will discuss and share personal experiences where a growth mindset could have made a difference. The researcher will circulate among the groups, providing guidance and encouraging participation.

(5) Q&A Session (10 minutes):

The researcher will open the floor for any questions about the course, growth mindset, or positive psychology. This session addresses any concerns

or curiosities the students may have and ensures they are comfortable with the course content and structure.

3.Conclusion (5 minutes):

The researcher will summarize the key points discussed in the session, reinforcing the importance of a growth mindset. An assignment will be given where students write a short reflection essay about their understanding of growth mindset and set personal learning goals for the course. This activity helps students consolidate their learning and set a clear direction for their personal growth throughout the course.

Conclusion

Through this teaching activity, students are well-acquainted with the course objectives and have a deeper understanding of growth mindset and positive psychology approach. During the activities, students are engaged and motivated to participate actively in future sessions.

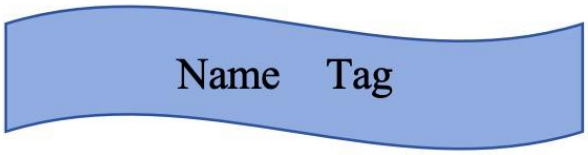
Evaluation

The evaluation of this teaching activity is mainly based on the following aspects:

1.Evaluate students' participation. Observe the performance of students in the activities, including the enthusiasm of ice-breaking and the activity of group discussion.

2.Evaluate the students' knowledge: Assess the students' understanding of growth mindset and the positive psychology approach by evaluating the quality and depth of their questions during the Q&A session.

3.Teachers' self-evaluation. Listen to students' feedback and suggestions and improve and optimize teaching activities.



Name:

My goal:

1. Reflect on a time when you faced a significant challenge. How did you respond to it? What was the outcome?

2. Share an example of when you received feedback. How did you react, and what did you learn from it?

3. Discuss a personal or academic goal you have. What steps are you taking to achieve it, and how does having a growth mindset help you?

Lesson 2: Belief in the Malleability of Abilities (Part 1)

Content

This lesson introduces the concept of the malleability of abilities, emphasizing that individual abilities, talents, and intelligence can be developed and expanded through effort, education, and experience. Students will explore how human potential is not predetermined and learn strategies to enhance their skills and intellectual capabilities through continuous learning and practice.

Objective:

1.To understand the concept of the malleability of abilities.

2.To recognize the potential for growth through effort and persistence.

3.To explore strategies for developing and enhancing abilities.

Time:

90 minutes.

Learning Materials:

1.Growth mindset activity materials: group discussion prompts, role-playing scripts.

2.Positive psychology approach cards.

3.Related videos on the malleability of abilities.

Learning Activity Steps:

1.Lead In (10 minutes)

The researcher will greet the students warmly to create a welcoming atmosphere and briefly recap the previous session to establish continuity. To introduce the topic, the researcher will ask the students, "What do you think determines our abilities and intelligence?" to stimulate their thinking. This will be followed by playing a short video that illustrates the concept of the malleability of abilities and its impact on personal growth.

2.Learning Activity (70 minutes)

(1) Knowledge Introduction and Explanation (20 minutes)

The researcher will explain the concept of the malleability of abilities in detail, highlighting how abilities can be developed over time with effort and persistence. Real-life examples and stories will be provided to illustrate the concept clearly.

(2) Group Discussion and Sharing (20 minutes)

The researcher will divide the students into small groups and provide discussion prompts about challenges they have faced and how they overcame them through effort and learning. Each group will discuss their experiences and insights. The researcher will circulate among the groups, providing guidance and encouraging participation. After the discussions, each group will share their experiences and insights with the class, facilitated by the researcher.

(3) Role-Playing Activity (20 minutes)

The researcher will guide students to role-play scenarios where they demonstrate the application of strategies to develop abilities. Scripts will be provided to facilitate the role-playing activity, and students will be encouraged to be creative in their role-playing. After the role-playing, each group will share their reflections on the activity, facilitated by the researcher.

(4) Rest and Communication (10 minutes)

The researcher will announce a short break. During this time, students can freely communicate and read positive psychology approach cards provided by the researcher to inspire further reflection.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of believing in the malleability of abilities for personal growth. The session will conclude with an assignment of a reflective essay where students write about a skill they want to develop and outline steps they will take to achieve this.

Conclusion

Through this teaching activity, students improved their understanding of the malleability of abilities, recognizing that intelligence and skills can be developed over time with effort and persistence. They gained valuable insights into how to overcome challenges and apply strategies to enhance their abilities. By participating in group discussions and role-playing activities, students also enhanced their collaboration and

communication skills. The reflective essay assignment further encouraged students to set personal growth goals and outline actionable steps to achieve them, fostering a mindset geared towards continuous learning and development.

Evaluation

1.The researcher will evaluate the students' participation in the group discussions and role-playing activities by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the role-playing scenarios.

2.The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities.

3.The reflective essay assigned at the end of the session will be evaluated based on how well students articulate their understanding of the malleability of abilities, the personal growth they aim to achieve, and the specific steps they plan to take to develop their chosen skill. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

1. Describe a challenge you faced and how you overcame it through effort and persistence.

2. Share a story of someone you admire who demonstrated the ability to develop their skills over time.

3. Discuss how having a growth mindset can impact your approach to learning and overcoming obstacles.

Role-Playing Scripts

Scenario 1:

A student struggles with a difficult math problem but decides to keep practicing and seeking help from a tutor.

Scenario 2:

An athlete faces a setback due to an injury but uses the recovery period to improve other skills.

Scenario 3:

A musician initially fails an audition but practices daily and successfully auditions again later.

Lesson 3: Belief in the Malleability of Abilities (Part 2)

Content

This lesson will deepen the understanding of the malleability of abilities by exploring further strategies to develop and enhance abilities. Students will engage in activities that encourage practical application of these strategies and reflect on their personal growth experiences.

Objective

1.To deepen the understanding of the malleability of abilities.

2.To apply strategies for developing and enhancing abilities.

3.To reflect on personal growth experiences and set future goals.

Time

90 minutes

Learning Materials

1.Growth mindset activity materials: group discussion prompts, situation simulations.

2.Positive psychology approach cards.

3.Related videos on personal growth and development.

Learning Activity Steps:

1. Lead In (10 minutes)

The researcher will begin the session with a brief recap of the previous session to reinforce continuity. Students will be asked to share their reflections from the

assigned essay to facilitate a smooth transition into the new topic. The researcher will introduce the session's focus on advanced strategies for developing abilities and play a short video showcasing inspiring stories of personal growth to engage and motivate the students.

2.Learning Activity (70 minutes)

(1) Advanced Strategies Introduction (20 minutes)

The researcher will explain advanced strategies for developing abilities in detail, including goal setting, self-reflection, and positive attribution. Real-life examples will be provided to illustrate how these strategies can be applied in various contexts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Sharing (20 minutes)

The researcher will form new groups and provide discussion prompts about personal growth experiences and future goals. Each group will discuss their strategies and plans for developing specific abilities. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share their strategies and insights with the class.

(3) Situation Simulation Activity (20 minutes)

The researcher will guide students through situation simulations where they practice applying the advanced strategies discussed. Scenarios will be provided, and students will be encouraged to role-play and creatively solve problems

using the strategies learned. After the simulations, each group will share their insights and learning experiences with the class, facilitated by the researcher.

(4) Rest and Communication (10 minutes)

The researcher will announce a short break. During this time, students can freely communicate and read positive psychology approach cards provided by the researcher to inspire further reflection.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, reinforcing the importance of believing in the malleability of abilities and applying strategies for continuous growth. The session will conclude with a goal-setting activity where students outline a detailed plan to develop a specific ability over the next month. This will help students apply what they have learned in a practical and actionable way.

Conclusion

Through this teaching activity, students deepened their understanding of the malleability of abilities, recognizing that intelligence and skills can be developed over time with effort and persistence. They gained valuable insights into how to apply advanced strategies to enhance their abilities. By participating in group discussions and situation simulations, students also enhanced their collaboration and communication skills. The goal-setting activity further encouraged students to set personal growth goals and outline actionable steps to achieve them, fostering a mindset geared towards continuous learning and development.

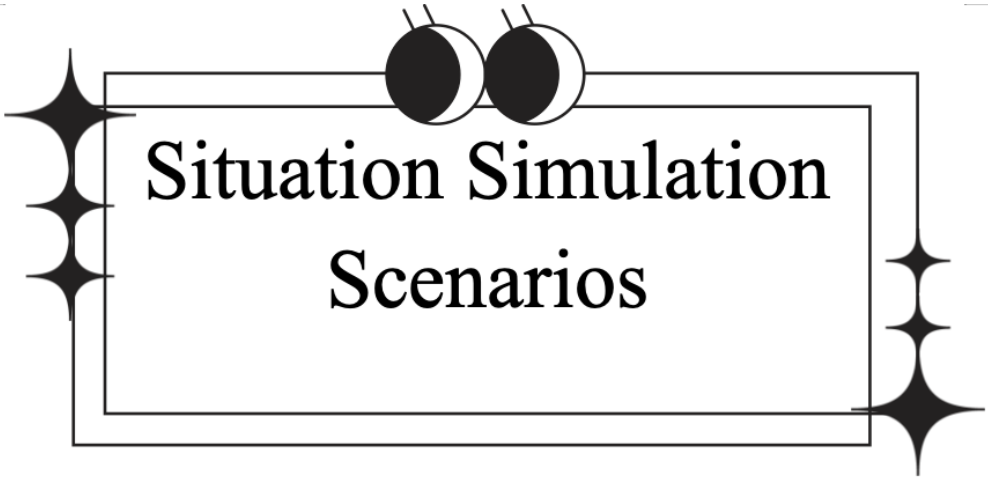
Evaluation

The researcher will evaluate the students' participation in the group discussions and situation simulations by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the simulations. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the goal-setting activity assigned at the end of the session will be evaluated based on how well students articulate their understanding of the malleability of abilities, their personal growth goals, and the specific steps they plan to take to develop their chosen ability. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

1. Share a personal growth experience where setting goals helped you succeed.

2. Discuss how self-reflection has impacted your learning process.

3. Provide examples of positive attribution in your life and how it has influenced your development.



Situation Simulation Scenarios

Scenario 1:

You are learning a new language and struggling with pronunciation. Role-play how setting specific goals and reflecting on your progress can help you improve.

Scenario 2:

You received feedback on a project that requires significant changes. Role-play how you can use positive attribution to stay motivated and make the necessary improvements.

Scenario 3:

You are preparing for a sports competition but faced a setback due to an injury. Role-play how you can adapt your training plan and stay focused on your long-term goal.

Reflection Essay Prompt

Write a reflective essay (300-500 words) on a skill you want to develop further. Include:

1. Why you chose this skill.
2. Your goals for developing this skill.
3. Strategies you will use, such as goal setting, self-reflection, and positive attribution.

Lesson 4: Persistence in the Face of Challenges (Part 1)

Content

This lesson will introduce the concept of persistence in the face of challenges, emphasizing the importance of continuous and determined effort to overcome obstacles and setbacks. Students will explore strategies to develop resilience and tenacity, which are crucial for maintaining motivation and progress toward their goals.

Objective

1.To understand the concept of persistence in the face of challenges.

2.To recognize the importance of resilience and tenacity.

3.To explore strategies for developing persistence.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, resilience-building exercises.

2.Positive psychology approach cards.

3.Related videos on persistence and overcoming challenges.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will greet the students warmly to create a welcoming atmosphere and briefly recap the previous sessions to establish continuity. The researcher will then introduce the topic by asking the students, "What challenges have you faced recently, and how did you deal with them?" This will stimulate their thinking and set the stage for the session. The researcher will play a short video that illustrates the importance of persistence in achieving goals, further engaging the students and providing a visual representation of the concept.

2. Learning Activity (70 minutes)

(1) Knowledge Introduction and Explanation (20 minutes)

The researcher will explain the concept of persistence in the face of challenges in detail. The researcher will highlight the role of resilience and tenacity in overcoming difficulties and achieving success, using real-life examples to illustrate these concepts. This will help students understand the importance of persistence and how it applies to their personal and academic lives.

(2) Group Discussion and Sharing (20 minutes)

The researcher will divide the students into small groups and provide discussion prompts about challenges they have faced and how they persisted through them. Each group will discuss their experiences and strategies for maintaining persistence. The researcher will circulate among the groups, providing guidance and encouraging participation. After the discussions, each group will share their experiences and insights with the class, facilitated by the researcher.

(3) Resilience-Building Exercises (20 minutes)

The researcher will guide students through exercises designed to build resilience and tenacity. These exercises could include mindfulness practices, positive self-talk, and goal-setting activities. The researcher will provide instructions and support as students engage in these activities. After completing the exercises, each group will share their reflections on how they felt during the activities and the impact on their understanding of persistence and resilience.

(4) Rest and Communication (10 minutes)

The researcher will announce a short break. During this time, students can freely communicate and read positive psychology approach cards provided by the researcher to inspire further reflection. This break will also give students an opportunity to relax and process the information they have learned.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of persistence and resilience for personal growth. The session will conclude with an assignment of a reflective essay where students write about a challenge they are currently facing and outline strategies to persist through it. This will help students apply what they have learned in a practical and personal way.

Conclusion

Through this teaching activity, students improved their understanding of persistence in the face of challenges, recognizing the importance of resilience and

tenacity in overcoming obstacles and achieving success. They gained valuable insights into how to develop and maintain persistence through practical strategies. By participating in group discussions and resilience-building exercises, students also enhanced their collaboration and communication skills. The reflective essay assignment further encouraged students to set personal goals and outline actionable steps to achieve them, fostering a mindset geared towards continuous learning and development.

Evaluation

The researcher will evaluate the students' participation in the group discussions and resilience-building exercises by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the exercises. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the reflective essay assigned at the end of the session will be evaluated based on how well students articulate their understanding of persistence, the challenges they are facing, and the specific strategies they plan to use to persist through these challenges. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

1. Discuss a challenge you faced and how persistence helped you overcome it.

2. Share strategies you use to maintain resilience in difficult times.

3. Reflect on the role of a support network in helping you stay persistent.

Reflection Essay Prompt

Write a reflective essay (300-500 words) on a challenge you are currently facing. Include:

1. The nature of the challenge.
2. Strategies you plan to use to persist through it.
3. How you will measure your progress and success.

Lesson 5: Persistence in the Face of Challenges (Part 2)

Content

This lesson will deepen the understanding of persistence by exploring advanced strategies to maintain effort and overcome setbacks. Students will engage in activities that encourage practical application of these strategies and reflect on their personal experiences of persistence.

Objective

1.To deepen the understanding of persistence

2.To apply advanced strategies for maintaining effort and overcoming setbacks

3.To reflect on personal experiences of persistence and set future goals

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, situation simulations

2.Positive psychology approach cards

3.Related videos on resilience and persistence

Learning Activity Steps

1.Lead In (10 minutes)

The researcher will begin the session with a brief recap of the previous session to reinforce continuity. Students will be asked to share their reflections from the

assigned essay to facilitate a smooth transition into the new topic. The researcher will introduce the session's focus on advanced strategies for maintaining effort and overcoming setbacks. To engage and motivate the students, the researcher will play a short video showcasing inspiring stories of individuals who have demonstrated persistence and resilience.

2. Learning Activity (70 minutes)

(1) Advanced Strategies Introduction (20 minutes)

The researcher will explain advanced strategies for sustaining effort in detail, including techniques such as developing a growth mindset, leveraging social support, and practicing mindfulness. Real-life examples will be provided to illustrate how these strategies can be applied in various contexts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Sharing (20 minutes)

The researcher will form new groups and provide discussion prompts about their best and worst experiences with maintaining effort and overcoming setbacks. Each group will discuss their strategies and plans for applying advanced strategies in future challenges. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share their strategies and insights with the class.

(3) Persistence Simulation Activity (20 minutes)

The researcher will guide students through persistence simulation exercises where they practice applying advanced strategies for maintaining effort and overcoming setbacks. Scenarios will be provided, and students will be encouraged to role-play and creatively solve problems using the strategies learned. After the simulations, each group will share their insights and learning experiences with the class, facilitated by the researcher.

(4) Rest and Communication (10 minutes)

The researcher will announce a short break. During this time, students can freely communicate and read positive psychology approach cards provided by the researcher to inspire further reflection.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, reinforcing the importance of persistence and resilience for personal growth. The session will conclude with a goal-setting activity where students outline a detailed plan to maintain effort and overcome setbacks in achieving a specific goal over the next month. This will help students apply what they have learned in a practical and actionable way.

Evaluation

The researcher will evaluate the students' participation in the group discussions and persistence simulation exercises by observing their engagement and enthusiasm. The researcher will take note of how actively students participate,

contribute to discussions, and collaborate with their peers during the simulations. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the goal-setting activity assigned at the end of the session will be evaluated based on how well students articulate their understanding of persistence, their personal growth goals, and the specific steps they plan to take to maintain effort and overcome setbacks. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

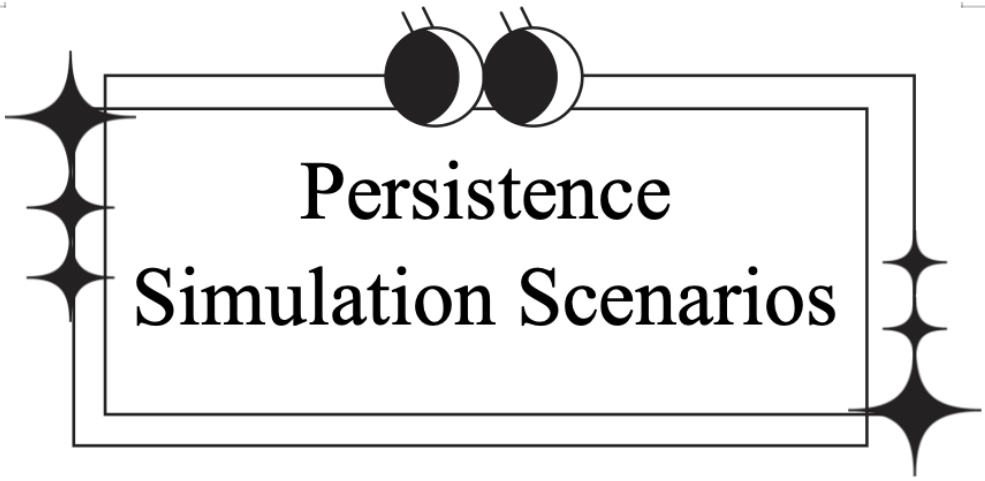
Conclusion

Through this teaching activity, students deepened their understanding of persistence in the face of challenges, recognizing the importance of resilience and tenacity in overcoming obstacles and achieving success. They gained valuable insights into how to apply advanced strategies to maintain effort and overcome setbacks. By participating in group discussions and persistence simulation exercises, students also enhanced their collaboration and communication skills. The goal-setting activity further encouraged students to set personal growth goals and outline actionable steps to achieve them, fostering a mindset geared towards continuous learning and development.

1. Share your best and worst experiences with maintaining effort.

2. Discuss the role of social support in helping you stay persistent.

3. Reflect on how mindfulness has impacted your ability to overcome challenges.



Persistence Simulation Scenarios

Scenario 1:
You are working on a long-term project and hit a major setback. Role-play how you can use a growth mindset to stay motivated.

Scenario 2:
You are preparing for an important exam but feel overwhelmed. Role-play how leveraging social support can help you manage your stress and stay focused.

Scenario 3:
You are pursuing a personal goal but face continuous obstacles. Role-play how practicing mindfulness can help you remain resilient.

Goal-Setting Activity Prompt

Outline a detailed plan to maintain effort and overcome setbacks in achieving a specific goal over the next month. Include:

1. The goal you want to achieve.
2. Strategies for maintaining effort.
3. How you will measure your progress and success.

Lesson 6: Openness to Feedback and Learning from Criticism (Part 1)

Content

This lesson introduces the concept of openness to feedback and learning from criticism. It emphasizes the importance of viewing feedback as valuable information for personal and professional development rather than negative judgment. Students will explore strategies to constructively use feedback and develop a mindset that appreciates constructive criticism.

Objective

1.To understand the concept of openness to feedback and learning from criticism.

2.To recognize the value of constructive feedback for personal growth.

3.To explore strategies for effectively receiving and using feedback.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, feedback role-playing scripts.

2.Positive psychology approach cards.

3.Related videos on feedback and growth.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will greet the students warmly and briefly recap the previous session to create continuity. The researcher will then introduce the topic by asking, "How do you typically respond to feedback or criticism?" to stimulate students' thinking. This will be followed by playing a short video that illustrates the importance of feedback in personal and professional growth.

2.Learning Activity (70 minutes)

(1) Knowledge Introduction and Explanation (20 minutes)

The researcher will explain the concept of openness to feedback and learning from criticism. The researcher will highlight how feedback can be used constructively for improvement and growth, using real-life examples to illustrate these concepts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Sharing (15 minutes)

The researcher will divide the students into small groups and provide discussion prompts about their experiences with feedback and how they handled it. Each group will discuss and share their insights. The researcher will circulate among the groups, providing guidance and encouraging participation. After the discussions, each group will share their insights with the class, facilitated by the researcher.

(3) Feedback Role-Playing Activity (20 minutes)

The researcher will guide students through role-playing scenarios where they practice giving and receiving feedback. Scripts will be provided to facilitate

the role-playing activity, and students will be encouraged to be creative in their role-playing. After the role-playing, each group will share their reflections on the activity, facilitated by the researcher.

(4) Interactive Quiz (15 minutes)

The researcher will conduct an interactive quiz using an online platform (e.g., Kahoot or Quizizz) to reinforce the key concepts learned. This will make learning fun and engaging while assessing students' understanding of the material. The researcher will review the quiz results with the class and address any misunderstandings.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of viewing feedback as valuable information for growth. The session will conclude with an assignment of a reflective essay where students write about a recent experience with feedback and how they can use it constructively.

Evaluation

The researcher will evaluate the students' participation in the group discussions, role-playing activities, and interactive quiz by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities.

Additionally, the reflective essay assigned at the end of the session will be evaluated based on how well students articulate their understanding of openness to feedback, their experiences with feedback, and the specific steps they plan to take to use feedback constructively. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

Conclusion

Through this teaching activity, students improved their understanding of openness to feedback and learning from criticism, recognizing the value of constructive feedback for personal and professional growth. They gained valuable insights into how to effectively receive and use feedback through group discussions, role-playing activities, and interactive quizzes. By participating in these diverse activities, students also enhanced their collaboration, communication, and critical thinking skills. The reflective essay assignment further encouraged students to reflect on their experiences and outline actionable steps to use feedback constructively, fostering a mindset geared towards continuous learning and development.

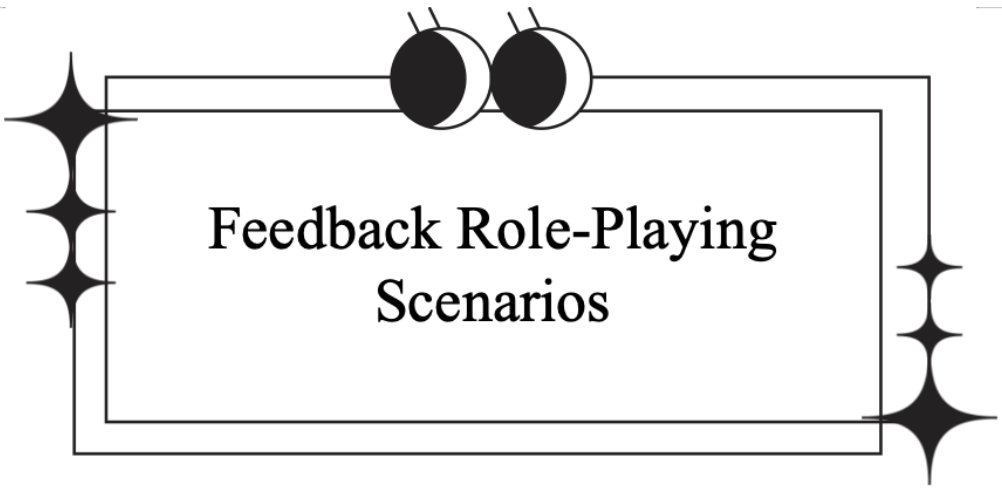
Interactive Quiz Questions

1. What are the key benefits of receiving feedback?
2. How can active listening enhance your ability to use feedback constructively?
3. Describe a strategy for reflecting on feedback.

1. Discuss a time when you received feedback and how you responded.

2. Share strategies for effectively using feedback to improve.

3. Reflect on the benefits of being open to constructive criticism.



Feedback Role-Playing Scenarios

Scenario 1:

You received feedback on a project at work. Role-play how you can actively listen and ask clarifying questions.

Scenario 2:

You received criticism on a personal habit. Role-play how you can reflect on the feedback and make positive changes.

Scenario 3:

You are in a group setting and receive feedback from peers. Role-play how you can integrate the feedback into your personal growth.

Reflection Essay Prompt

Write a reflective essay (300-500 words) on a recent experience with feedback. Include:

1. The nature of the feedback.
2. How you responded to it.
3. How you plan to use the feedback for personal growth.

Lesson 7: Openness to Feedback and Learning from Criticism (Part 2)

Content

This lesson will deepen the understanding of openness to feedback by exploring advanced strategies to seek out and appreciate constructive criticism. Students will engage in activities that encourage practical application of these strategies and reflect on their personal experiences with feedback.

Objective

1.To deepen the understanding of openness to feedback.

2.To apply advanced strategies for seeking and using feedback.

3.To reflect on personal experiences with feedback and set future goals.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, feedback simulations.

2.Positive psychology approach cards.

3.Related videos on constructive criticism and growth.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will begin with a brief recap of the previous session to reinforce continuity. Students will be asked to share their reflections from the assigned essay to facilitate a smooth transition into the new topic. The researcher will introduce

the session's focus on advanced strategies for seeking and using feedback and play a short video showcasing inspiring stories of individuals who have grown through constructive criticism.

2. Learning Activity (70 minutes)

(1) Advanced Strategies Introduction (20 minutes)

The researcher will explain advanced strategies for seeking and using feedback in detail, including techniques such as active listening, asking clarifying questions, and separating the message from the messenger. Real-life examples will be provided to illustrate how these strategies can be applied in various contexts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Peer Feedback (20 minutes)

The researcher will form new groups and provide discussion prompts about their best and worst experiences with feedback. Each student will then provide peer feedback within their group on a recent project or activity. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share their insights and experiences with the class.

(3) Feedback Simulation Activity (20 minutes)

The researcher will guide students through feedback simulation exercises where they practice applying advanced strategies for seeking and using

feedback. Scenarios will be provided, and students will be encouraged to role-play and creatively solve problems using the strategies learned. After the simulations, each group will share their insights and learning experiences with the class, facilitated by the researcher.

(4) Self-Assessment and Goal Setting (10 minutes)

The researcher will guide students through a self-assessment exercise where they evaluate their openness to feedback and identify areas for improvement. Following the self-assessment, students will set specific goals for how they will seek and use feedback in the future. The researcher will provide support and guidance as students complete this activity.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, reinforcing the importance of openness to feedback for personal growth. The session will conclude with an assignment of a goal-setting activity where students outline a detailed plan to seek and use feedback effectively in their academic or personal lives.

Evaluation

The researcher will evaluate the students' participation in the group discussions, peer feedback activities, and feedback simulations by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions

will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the self-assessment and goal-setting activity assigned at the end of the session will be evaluated based on how well students articulate their understanding of openness to feedback, their experiences with feedback, and the specific steps they plan to take to seek and use feedback effectively. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

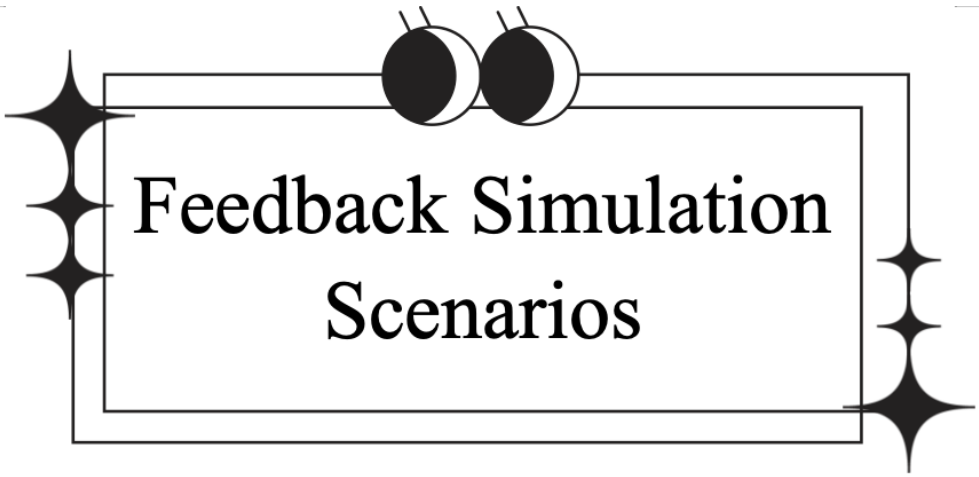
Conclusion

Through this teaching activity, students deepened their understanding of openness to feedback and learning from criticism, recognizing the value of seeking and appreciating constructive feedback for personal and professional growth. They gained valuable insights into how to effectively seek and use feedback through group discussions, peer feedback activities, feedback simulations, and self-assessment exercises. By participating in these diverse activities, students also enhanced their collaboration, communication, and critical thinking skills. The goal-setting activity further encouraged students to set personal growth goals and outline actionable steps to seek and use feedback effectively, fostering a mindset geared towards continuous learning and development.

1. Discuss your best and worst experiences with feedback.

2. Share strategies for asking clarifying questions to understand feedback.

3. Reflect on how separating the message from the messenger can improve your response to feedback.

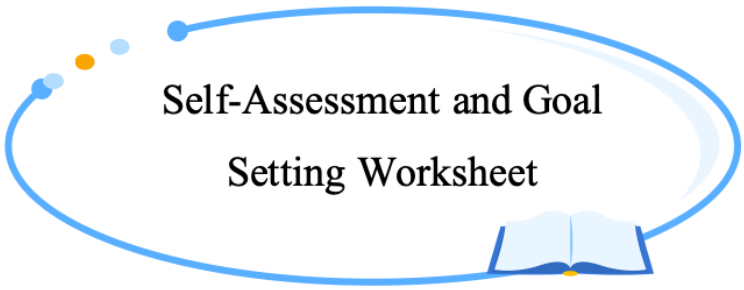


Feedback Simulation Scenarios

Scenario 1:
You received detailed feedback on a research paper. Role-play how you can ask clarifying questions and integrate the feedback.

Scenario 2:
You received feedback during a performance review. Role-play how you can focus on the content of the feedback rather than the person giving it.

Scenario 3:
You received mixed feedback from multiple sources. Role-play how you can manage your emotional responses and use the feedback constructively.



Self-Assessment and Goal Setting Worksheet

- Self-assessment questions:

1. How open are you to receiving feedback?

_____

2. What are your strengths in responding to feedback?

_____

3. What areas do you need to improve in using feedback?

_____

- Goal-setting prompts:

1. Identify a specific area where you want to seek feedback.

_____

2. Outline steps you will take to actively listen and ask clarifying questions.

_____

3. Set a timeline for implementing the feedback and measuring your progress.

_____

Lesson 8: Effort as a Pathway to Mastery (Part 1)

Content

This lesson introduces the concept of effort as a pathway to mastery. It emphasizes the belief that consistent and dedicated effort is crucial for acquiring proficiency and expertise in any skill or area of knowledge. Students will explore strategies to maintain motivation and commitment to sustained effort.

Objective

1.To understand the concept of effort as a pathway to mastery.

2.To recognize the importance of consistent and dedicated effort in achieving mastery.

3.To explore strategies for maintaining motivation and commitment to effort.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, effort-tracking worksheets.

2.Positive psychology approach cards.

3.Related videos on effort and mastery.

Learning Activity Steps

1.Lead In (10 minutes)

The researcher will greet the students warmly and briefly recap the previous session to create continuity. The researcher will introduce the topic by asking

the students, "What role does effort play in your achievements?" to stimulate their thinking. This will be followed by playing a short video that illustrates the importance of effort in mastering a skill or knowledge area, engaging the students and providing a visual representation of the concept.

2. Learning Activity (70 minutes)

(1) Knowledge Introduction and Explanation (20 minutes)

The researcher will explain the concept of effort as a pathway to mastery in detail. The researcher will highlight how consistent and dedicated effort leads to proficiency and expertise, using real-life examples and stories to illustrate these concepts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Sharing (15 minutes)

The researcher will divide the students into small groups and provide discussion prompts about their experiences with effort and its impact on their achievements. Each group will discuss their experiences and strategies for maintaining consistent effort. The researcher will circulate among the groups, providing guidance and encouraging participation. After the discussions, each group will share their insights with the class, facilitated by the researcher.

(3) Effort-Tracking Worksheet Activity (15 minutes)

The researcher will guide students through an activity where they use effort-tracking worksheets to plan and monitor their efforts in a specific area. Students

will be asked to choose a skill or subject they want to improve and set short-term and long-term goals. The researcher will provide instructions and support as students complete the worksheets. After completing the activity, each group will share their plans and reflections.

(4) Interactive Game (20 minutes)

The researcher will organize an interactive game that involves challenges related to effort and persistence. The game will be designed to reinforce the concept of sustained effort and make learning fun and engaging. The researcher will explain the rules and objectives of the game, and students will work in teams to complete the challenges. After the game, the researcher will facilitate a discussion on the lessons learned and how they relate to the concept of effort as a pathway to mastery.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of consistent and dedicated effort for achieving mastery. The session will conclude with an assignment of a reflective essay where students write about a skill they want to master and outline their plan for consistent effort. This will help students apply what they have learned in a practical and personal way.

Evaluation

The researcher will evaluate the students' participation in the group discussions, effort-tracking activity, and interactive game by observing their

engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the reflective essay assigned at the end of the session will be evaluated based on how well students articulate their understanding of effort as a pathway to mastery, their personal growth goals, and the specific steps they plan to take to achieve mastery. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

Conclusion

Through this teaching activity, students improved their understanding of effort as a pathway to mastery, recognizing the importance of consistent and dedicated effort in achieving proficiency and expertise. They gained valuable insights into how to maintain motivation and commitment to sustained effort through group discussions, effort-tracking activities, and interactive games. By participating in these diverse activities, students also enhanced their collaboration, communication, and problem-solving skills. The reflective essay assignment further encouraged students to set personal growth goals and outline actionable steps to achieve them, fostering a mindset geared towards continuous learning and development.

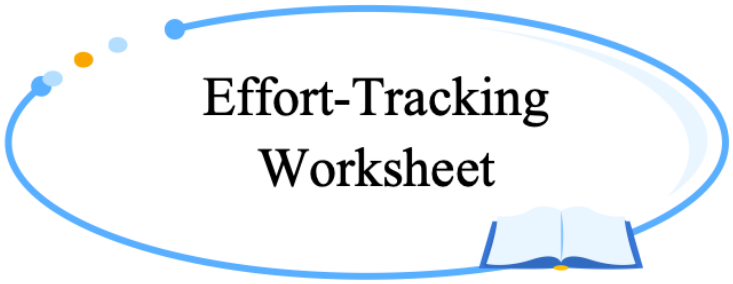
Interactive Game: Effort and Persistence Challenges

1. Design challenges that require sustained effort to complete.
2. Create teams to work together on these challenges.
3. Provide rewards or recognition for teams that demonstrate persistence and effort.
4. Facilitate a discussion on the lessons learned from the game and how they relate to effort as a pathway to mastery.

1. Share your experiences with effort and how it has impacted your achievements.

2. Discuss strategies you use to maintain consistent effort.

3. Reflect on the role of goal-setting in sustaining effort.



Effort-Tracking Worksheet

1. Identify a skill or subject you want to improve.

2. Set short-term and long-term goals for developing this skill.

3. Track your daily or weekly effort towards these goals.

4. Reflect on your progress and adjust your goals as needed.

Reflection Essay Prompt

Write a reflective essay (300-500 words) on a skill you want to master. Include:

1. Why you chose this skill.
2. Your plan for consistent effort.
3. How you will track your progress and measure your success.

Lesson 9: Effort as a Pathway to Mastery (Part 2)

Content

This lesson will deepen the understanding of effort as a pathway to mastery by exploring advanced strategies to sustain effort and overcome challenges. Students will engage in activities that encourage practical application of these strategies and reflect on their personal experiences with sustained effort.

Objective

1. To deepen the understanding of effort as a pathway to mastery.

2.To apply advanced strategies for sustaining effort and overcoming challenges.

3.To reflect on personal experiences with sustained effort and set future goals.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, effort simulation exercises.

2.Positive psychology approach cards.

3.Related videos on effort and mastery.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will begin the session with a brief recap of the previous session to reinforce continuity. Students will be asked to share their reflections from the assigned essay to facilitate a smooth transition into the new topic. The researcher will introduce the session's focus on advanced strategies for sustaining effort and overcoming challenges and play a short video showcasing inspiring stories of individuals who have demonstrated sustained effort in achieving mastery.

2. Learning Activity (70 minutes)

(1) Advanced Strategies Introduction (20 minutes)

The researcher will explain advanced strategies for sustaining effort in detail, including techniques such as setting incremental goals, maintaining a positive mindset, and leveraging support systems. Real-life examples will be provided to illustrate how these strategies can be applied in various contexts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Case Study Analysis (20 minutes)

The researcher will form new groups and provide discussion prompts along with case studies of individuals who achieved mastery through sustained effort. Each group will analyze the case studies and discuss the strategies used to overcome challenges and maintain effort. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share their analyses and insights with the class.

(3) Effort Simulation Activity (20 minutes)

The researcher will guide students through effort simulation exercises where they practice applying advanced strategies for sustaining effort. Scenarios will be provided, and students will be encouraged to role-play and creatively solve problems using the strategies learned. After the simulations, each group will share their insights and learning experiences with the class, facilitated by the researcher.

(4) Mindfulness and Visualization Exercise (10 minutes)

The researcher will lead students through a mindfulness and visualization exercise to help them focus on their goals and visualize the effort required to achieve mastery. The researcher will provide guidance on mindfulness techniques and encourage students to reflect on their experiences and set intentions for their sustained effort.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, reinforcing the importance of sustained effort for achieving mastery. The session will conclude with an assignment of a goal-setting activity where students outline a detailed plan to maintain effort and overcome challenges in achieving a specific goal over the next month. This will help students apply what they have learned in a practical and actionable way.

Evaluation

The researcher will evaluate the students' participation in the group discussions, case study analysis, effort simulation exercises, and mindfulness activities by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the goal-setting activity assigned at the end of the session will be evaluated based on how well students articulate their understanding of effort as a pathway to mastery, their personal growth goals, and the specific steps they plan to take to sustain effort and overcome challenges. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

Conclusion

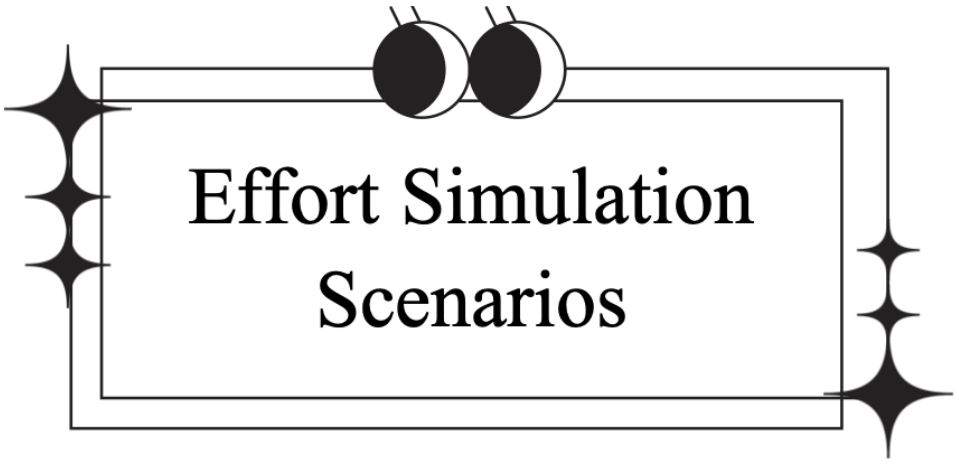
Through this teaching activity, students deepened their understanding of effort as a pathway to mastery, recognizing the importance of sustained effort in achieving proficiency and expertise. They gained valuable insights into how to apply advanced strategies to maintain effort and overcome challenges through group discussions, case study analyses, effort simulation exercises, and mindfulness activities. By participating in these diverse activities, students also enhanced their collaboration, communication, and problem-solving skills. The goal-setting activity further encouraged

students to set personal growth goals and outline actionable steps to achieve them, fostering a mindset geared towards continuous learning and development.

1. Share your best and worst experiences with maintaining effort.

2. Discuss the role of incremental goals in achieving long-term success.

3. Reflect on how a positive mindset and support systems have impacted your ability to sustain effort.



Effort Simulation Scenarios

Scenario 1:

You are working on a long-term research project and face multiple setbacks. Role-play how you can use incremental goals to stay motivated.

Scenario 2:

You are training for a marathon and hit a plateau in your progress. Role-play how maintaining a positive mindset can help you push through.

Scenario 3:

You are learning a new instrument and feel discouraged by slow progress. Role-play how leveraging support systems can help you stay committed.

Goal-Setting Activity Prompt

Outline a detailed plan to maintain effort and overcome challenges in achieving a specific goal over the next month. Include:

1. The goal you want to achieve.
2. Strategies for maintaining effort.
3. How you will measure your progress and success.

Lesson Activity 10: Embracing Challenges as Opportunities for Growth (Part 1)

Content

This lesson introduces the concept of embracing challenges as opportunities for growth. It emphasizes viewing difficulties and obstacles not as hindrances but as valuable chances for learning and personal development. Students will explore strategies to reframe challenges positively and develop resilience, creativity, and problem-solving skills.

Objective

1.To understand the concept of embracing challenges as opportunities for growth.

2.To recognize the benefits of viewing challenges positively.

3.To explore strategies for reframing challenges and developing resilience.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, challenge-reframing exercises.

2.Positive psychology approach cards.

3.Related videos on overcoming challenges and personal growth.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will greet the students warmly and briefly recap the previous session. To introduce the topic, the researcher will ask, "How do you typically respond to challenges?" to stimulate students' thinking. This will be followed by playing a short video that illustrates the importance of viewing challenges as opportunities for growth.

2.Learning Activity (70 minutes)

(1) Knowledge Introduction and Explanation (20 minutes)

The researcher will explain the concept of embracing challenges as opportunities for growth. The researcher will highlight how this mindset fosters

resilience, creativity, and problem-solving skills, using real-life examples and stories to illustrate the concept. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Sharing (15 minutes)

The researcher will divide the students into small groups and provide discussion prompts about their experiences with challenges and how they overcame them. Each group will discuss and share their insights on viewing challenges positively. The researcher will circulate among the groups, providing guidance and encouraging participation. After the discussions, each group will share their insights with the class, facilitated by the researcher.

(3) Challenge-Reframing Exercise (15 minutes)

The researcher will guide students through an exercise where they reframe a recent challenge they faced. Students will be provided with worksheets and prompts to help them identify the learning opportunities and growth potential in the challenge. The researcher will provide instructions and support as students complete the exercise. After the activity, each group will share their reflections and insights.

(4) Interactive Role-Playing (20 minutes)

The researcher will organize a role-playing activity where students practice responding to challenging scenarios with a growth mindset. Scripts will be provided, and students will be encouraged to act out the scenarios creatively. The researcher will facilitate the role-playing and guide students to reflect on their experiences. After the role-playing, each group will share their insights and learning experiences with the class.

3.Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of embracing challenges for personal growth. The session will conclude with an assignment of a reflective essay where students write about a recent challenge they faced and how they can reframe it as an opportunity for growth. This will help students apply what they have learned in a practical and personal way.

Evaluation

The researcher will evaluate the students' participation in the group discussions, challenge-reframing exercise, and role-playing activity by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the reflective essay assigned at the end of the session will be evaluated based on how well students articulate their understanding of embracing challenges, their personal growth goals, and the specific steps they plan to take to reframe challenges as opportunities. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

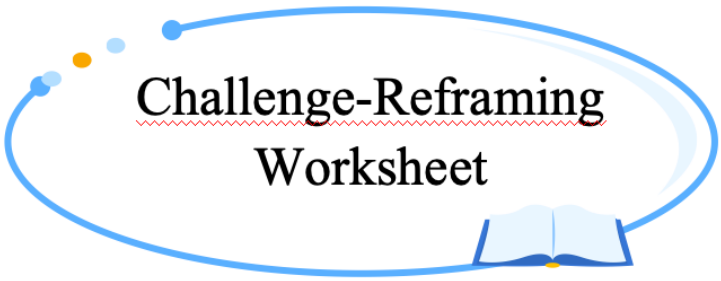
Conclusion

Through this teaching activity, students improved their understanding of embracing challenges as opportunities for growth, recognizing the benefits of viewing difficulties and obstacles positively. They gained valuable insights into how to reframe challenges and develop resilience, creativity, and problem-solving skills through group discussions, challenge-reframing exercises, and role-playing activities. By participating in these diverse activities, students also enhanced their collaboration, communication, and critical thinking skills. The reflective essay assignment further encouraged students to reflect on their experiences and outline actionable steps to reframe challenges as opportunities, fostering a mindset geared towards continuous learning and development.

1. Share your experiences with challenges and how you overcame them.

2. Discuss how viewing challenges positively has impacted your growth.

3. Reflect on strategies you use to reframe challenges.



Challenge-Reframing Worksheet

1. Identify a recent challenge you faced.

2. Reframe the challenge as an opportunity for growth.

3. Outline the learning opportunities and growth potential in the challenge.

4. Reflect on how this new perspective changes your approach to the challenge.

Role-Playing Scenarios

Scenario 1:

You face a difficult exam and feel unprepared. Role-play how reframing the challenge can help you approach it positively.

Scenario 2:

You encounter a major setback in a project. Role-play how reflecting on past successes can boost your resilience.

Scenario 3:

You are dealing with a personal conflict. Role-play how changing your perspective can help you find a solution.

Reflection Essay Prompt

Write a reflective essay (300-500 words) on a recent challenge you faced and how you can reframe it as an opportunity for growth.

Include:

1. The nature of the challenge.
2. Strategies for reframing the challenge.
3. The potential growth opportunities and lessons to be learned.

Lesson 11: Embracing Challenges as Opportunities for Growth (Part 2)

Content

This lesson will deepen the understanding of embracing challenges as opportunities for growth by exploring advanced strategies to maintain a positive mindset and leverage challenges for personal development. Students will engage in activities that encourage practical application of these strategies and reflect on their personal experiences with challenges.

Objective

1.To deepen the understanding of embracing challenges as opportunities for growth.

2.To apply advanced strategies for maintaining a positive mindset in the face of challenges.

3.To reflect on personal experiences with challenges and set future goals.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, challenge simulation exercises.

2.Positive psychology approach cards.

3.Related videos on resilience and personal growth through challenges.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will begin the session with a brief recap of the previous session to reinforce continuity. Students will be asked to share their reflections from the assigned essay to facilitate a smooth transition into the new topic. The researcher will introduce the session's focus on advanced strategies for embracing challenges and play a short video showcasing inspiring stories of individuals who turned challenges into growth opportunities.

2. Learning Activity (70 minutes)

(1) Advanced Strategies Introduction (20 minutes)

The researcher will explain advanced strategies for embracing challenges in detail, including techniques such as developing a growth mindset, leveraging social support, and practicing mindfulness. Real-life examples will be provided to illustrate how these strategies can be applied in various contexts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Case Study Analysis (20 minutes)

The researcher will form new groups and provide discussion prompts along with case studies of individuals who successfully embraced challenges. Each group will analyze the case studies and discuss the strategies used to turn challenges into growth opportunities. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share their analyses and insights with the class.

(3) Challenge Simulation Activity (20 minutes)

The researcher will guide students through challenge simulation exercises where they practice applying advanced strategies for embracing challenges. Scenarios will be provided, and students will be encouraged to role-play and creatively solve problems using the strategies learned. The researcher will facilitate the simulations and guide students to reflect on their experiences. After the simulations, each group will share their insights and learning experiences with the class.

(4) Creative Expression Exercise (10 minutes)

The researcher will lead students through a creative expression exercise where they use art, writing, or other creative methods to express how they view challenges and their strategies for overcoming them. The researcher will provide materials and instructions, encouraging students to reflect on their experiences and express their thoughts creatively. After the exercise, students will share their creative expressions and reflections with the class.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, reinforcing the importance of viewing challenges as opportunities for growth and the application of advanced strategies for maintaining a positive mindset. The session will conclude with an assignment of a goal-setting activity where students outline a detailed plan to embrace and leverage challenges for personal and academic growth over the next month. This will help students apply what they have learned in a practical and actionable way.

Evaluation

The researcher will evaluate the students' participation in the group discussions, case study analysis, challenge simulation exercises, and creative expression activities by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the goal-setting activity assigned at the end of the session will be evaluated based on how well students articulate their understanding of embracing challenges, their personal growth goals, and the specific steps they plan to take to leverage challenges for growth. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

Conclusion

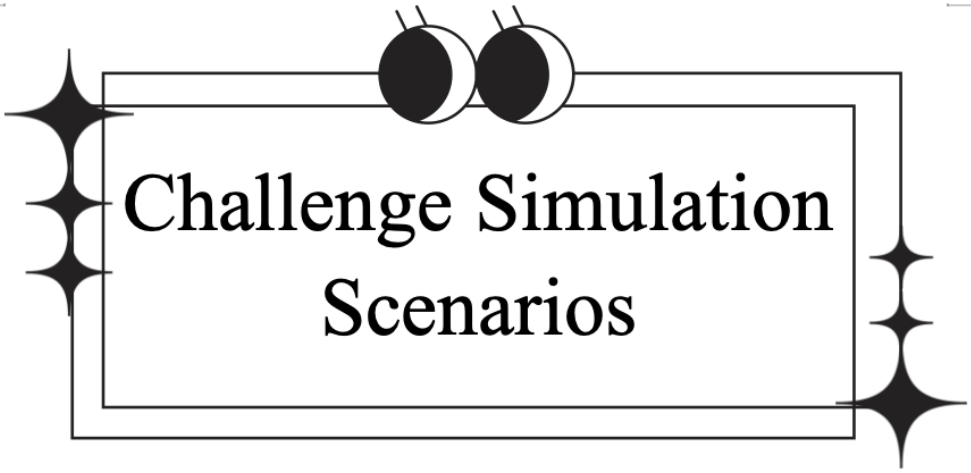
Through this teaching activity, students deepened their understanding of embracing challenges as opportunities for growth, recognizing the importance of maintaining a positive mindset and leveraging challenges for personal development. They gained valuable insights into how to apply advanced strategies for embracing challenges through group discussions, case study analyses, challenge simulation exercises, and creative expression activities. By participating in these diverse activities, students also enhanced their collaboration, communication, and critical thinking skills.

The goal-setting activity further encouraged students to set personal growth goals and outline actionable steps to leverage challenges for growth, fostering a mindset geared towards continuous learning and development.

1. Discuss your best and worst experiences with challenges.

2. Share strategies for leveraging social support during challenging times.

3. Reflect on how mindfulness has impacted your ability to embrace challenges.



Challenge Simulation Scenarios

Scenario 1:
You are working on a long-term project and hit a major setback. Role-play how you can use a growth mindset to stay motivated.

Scenario 2:
You are preparing for an important exam but feel overwhelmed. Role-play how leveraging social support can help you manage your stress and stay focused.

Scenario 3:
You are pursuing a personal goal but face continuous obstacles. Role-play how practicing mindfulness can help you remain resilient.

Goal-Setting Activity Prompt

Outline a detailed plan to embrace and leverage challenges for personal and academic growth over the next month. Include:

1. The challenge you want to embrace.
2. Strategies for maintaining a positive mindset.
3. How you will measure your progress and success.

Lesson 12: Adaptability and Flexibility in Learning (Part 1)

Content

This lesson introduces the concept of adaptability and flexibility in learning. It emphasizes the importance of being open-minded and willing to adjust one's approach to learning in response to new information, changing conditions, or unexpected challenges. Students will explore strategies to enhance their adaptability and flexibility in learning.

Objective

1.To understand the concept of adaptability and flexibility in learning.

2.To recognize the importance of adjusting learning strategies in response to new information and challenges.

3.To explore strategies for enhancing adaptability and flexibility.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, adaptability exercises.

2.Positive psychology approach cards.

3.Related videos on flexible learning strategies.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will greet the students warmly and briefly recap the previous session to establish continuity. The researcher will introduce the topic by asking, "How do you typically respond when you encounter new information or unexpected challenges in your learning?" to stimulate their thinking. This will be followed by playing a short video that illustrates the importance of adaptability and flexibility in learning.

2. Learning Activity (70 minutes)

(1) Knowledge Introduction and Explanation (20 minutes)

The researcher will explain the concept of adaptability and flexibility in learning. The researcher will highlight how being open-minded and willing to adjust

strategies can enhance understanding and effectiveness. Real-life examples and stories will be provided to illustrate the concept clearly. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Sharing (15 minutes)

The researcher will divide the students into small groups and provide discussion prompts about their experiences with adaptability and flexibility in learning. Each group will discuss and share their insights on adjusting learning approaches in response to changing conditions. The researcher will circulate among the groups, providing guidance and encouraging participation. After the discussions, each group will share their insights with the class, facilitated by the researcher.

(3) Adaptability Exercise (15 minutes)

The researcher will guide students through an exercise where they practice adapting their learning strategies in response to changing conditions. Scenarios and prompts will be provided to help them identify ways to adjust their approaches. The researcher will provide instructions and support as students engage in the exercise. After completing the activity, each group will share their reflections and insights.

(4) Interactive Problem-Solving (20 minutes)

The researcher will organize an interactive problem-solving activity where students face unexpected challenges and must adapt their learning strategies to overcome them. The activity will involve team-based tasks that require flexibility and creativity. The researcher will explain the rules and objectives of the activity and facilitate the problem-solving process. After the activity, the researcher will lead a discussion on the lessons learned and how they relate to adaptability and flexibility in learning.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of adaptability and flexibility in learning for personal growth. The session will conclude with an assignment of a reflective essay where

students write about a recent learning experience and how they adapted their approach to enhance their understanding. This will help students apply what they have learned in a practical and personal way.

Evaluation

The researcher will evaluate the students' participation in the group discussions, adaptability exercise, and interactive problem-solving activity by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the reflective essay assigned at the end of the session will be evaluated based on how well students articulate their understanding of adaptability and flexibility, their personal growth goals, and the specific steps they plan to take to enhance their learning strategies. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

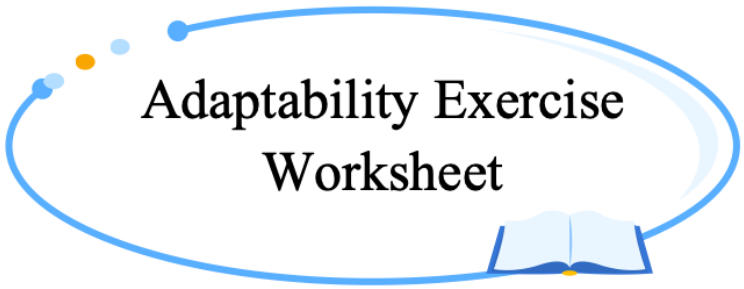
Conclusion

Through this teaching activity, students improved their understanding of adaptability and flexibility in learning, recognizing the importance of being open-minded and willing to adjust strategies in response to new information and challenges. They gained valuable insights into how to enhance their learning strategies through group discussions, adaptability exercises, and interactive problem-solving activities. By participating in these diverse activities, students also enhanced their collaboration, communication, and problem-solving skills. The reflective essay assignment further encouraged students to reflect on their experiences and outline actionable steps to adapt their learning strategies, fostering a mindset geared towards continuous learning and development.

1. Discuss your experiences with adaptability and flexibility in learning.

2. Share strategies you use to adjust your learning approaches.

3. Reflect on the benefits of being open-minded in your learning process.



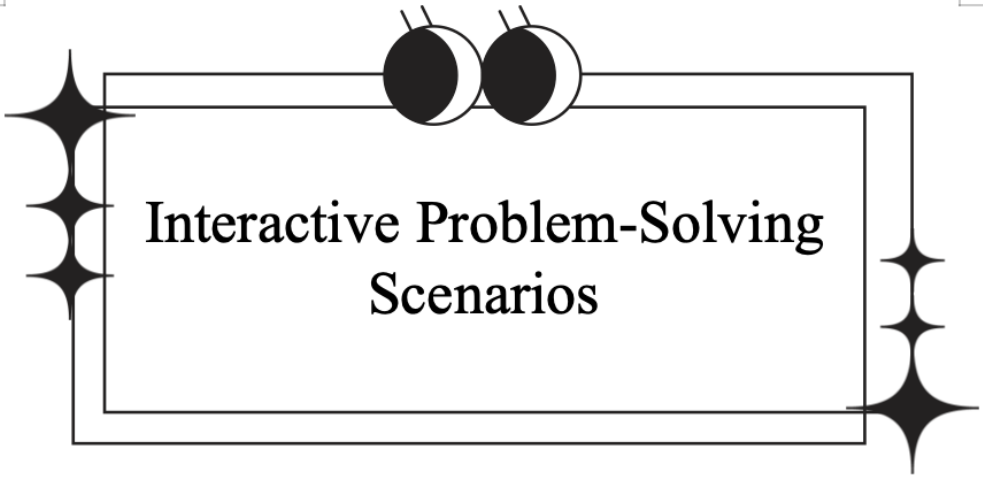
Adaptability Exercise Worksheet

1. Identify a recent learning experience where you had to adapt.

2. Describe how you adjusted your learning approach.

3. Reflect on the outcomes and lessons learned.

4. Outline steps you can take to enhance your adaptability in future learning experiences.



Interactive Problem-Solving Scenarios

Scenario 1:

You encounter new information that contradicts your previous knowledge. Role-play how you can adjust your learning approach to integrate the new information.

Scenario 2:

You face an unexpected challenge in a group project. Role-play how you can collaborate with your peers to find a flexible solution.

Scenario 3:

You need to learn a new skill quickly. Role-play how you can experiment with different learning methods to achieve your goal.

Reflection Essay Prompt

Write a reflective essay (300-500 words) on a recent learning experience and how you adapted your approach to enhance your understanding. Include:

1. The learning experience.
2. Strategies for adapting your approach.
3. The outcomes and lessons learned.

Lesson 13: Adaptability and Flexibility in Learning (Part 2)

Content

This lesson will deepen the understanding of adaptability and flexibility in learning by exploring advanced strategies to modify learning approaches in response to new information and challenges. Students will engage in activities that encourage practical application of these strategies and reflect on their personal experiences with adaptable learning.

Objective

1.To deepen the understanding of adaptability and flexibility in learning.

2.To apply advanced strategies for modifying learning approaches.

3.To reflect on personal experiences with adaptable learning and set future goals.

Time

90 minutes

Learning Materials

1.Activity materials: group discussion prompts, learning flexibility simulations.

2.Positive psychology approach cards.

3.Related videos on adaptability and flexible learning strategies.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will begin the session with a brief recap of the previous session to reinforce continuity. Students will be asked to share their reflections from the assigned essay to facilitate a smooth transition into the new topic. The researcher will introduce the session's focus on advanced strategies for adaptable learning and play a short video showcasing inspiring stories of individuals who successfully adapted their learning strategies.

2. Learning Activity (70 minutes)

(1) Advanced Strategies Introduction (20 minutes)

The researcher will explain advanced strategies for adaptable learning in detail, including experimenting with different methods, seeking feedback, and using reflective practices. Real-life examples will be provided to illustrate how these strategies can be applied in various contexts. The researcher will encourage students to ask questions and share their thoughts to ensure a comprehensive understanding.

(2) Group Discussion and Peer Teaching (20 minutes)

The researcher will form new groups and provide discussion prompts about their best and worst experiences with adapting their learning strategies. Each student will take a turn teaching a specific strategy to their peers, reinforcing their understanding and promoting collaborative learning. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share their insights and experiences with the class.

(3) Learning Flexibility Simulation (20 minutes)

The researcher will guide students through learning flexibility simulations where they practice applying advanced strategies for adapting their learning approaches. Scenarios will be provided, and students will be encouraged to role-play and creatively solve problems using the strategies learned. The researcher will facilitate the simulations and guide students to reflect on their experiences. After the simulations, each group will share their insights and learning experiences with the class.

(4) Creative Reflection Activity (10 minutes)

The researcher will lead students through a creative reflection activity where they use art, writing, or other creative methods to express their adaptability and flexibility in learning. The researcher will provide materials and instructions, encouraging students to reflect on their experiences and express their thoughts creatively. After the activity, students will share their creative expressions and reflections with the class.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, reinforcing the importance of adaptability and flexibility in learning and the application of advanced strategies for modifying learning approaches. The session will conclude with

an assignment of a goal-setting activity where students outline a detailed plan to enhance their adaptability and flexibility in learning over the next month. This will help students apply what they have learned in a practical and actionable way.

Evaluation

The researcher will evaluate the students' participation in the group discussions, peer teaching activities, learning flexibility simulations, and creative reflection exercises by observing their engagement and enthusiasm. The researcher will take note of how actively students participate, contribute to discussions, and collaborate with their peers during the activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the activities. Additionally, the goal-setting activity assigned at the end of the session will be evaluated based on how well students articulate their understanding of adaptability and flexibility, their personal growth goals, and the specific steps they plan to take to enhance their learning strategies. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to personal growth through the concepts discussed in the session.

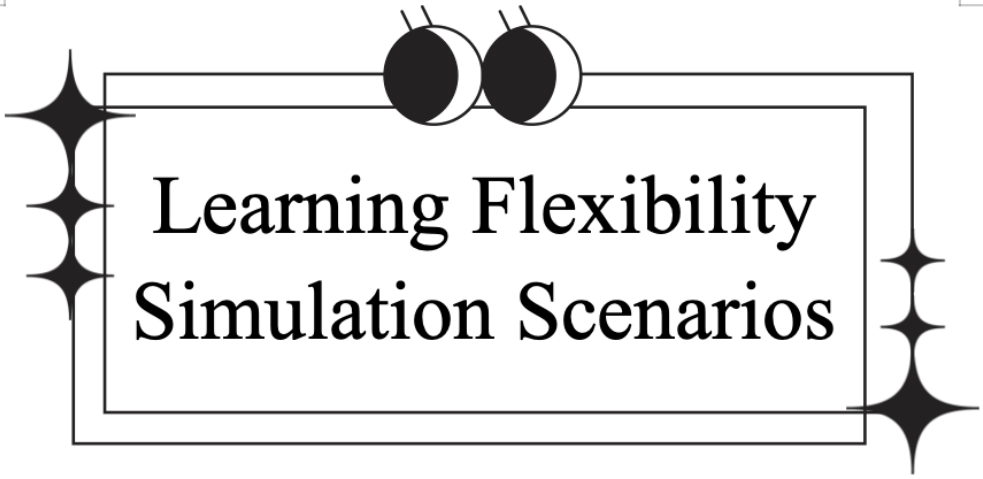
Conclusion

Through this teaching activity, students deepened their understanding of adaptability and flexibility in learning, recognizing the importance of modifying learning approaches in response to new information and challenges. They gained valuable insights into how to apply advanced strategies for adaptable learning through group discussions, peer teaching activities, learning flexibility simulations, and creative reflection exercises. By participating in these diverse activities, students also enhanced their collaboration, communication, and critical thinking skills. The goal-setting activity further encouraged students to set personal growth goals and outline actionable steps to enhance their learning strategies, fostering a mindset geared towards continuous learning and development.

1. Share your best and worst experiences with adapting your learning strategies.

2. Discuss the role of feedback in helping you adjust your learning approaches.

3. Reflect on how reflective practices have impacted your adaptability.



Learning Flexibility Simulation Scenarios

Scenario 1:

You are preparing for a major exam and need to change your study approach. Role-play how you can experiment with different study methods.

Scenario 2:

You receive critical feedback on a project. Role-play how you can use the feedback to refine your learning strategy.

Scenario 3:

You face a significant change in your learning environment. Role-play how you can adapt your approach to succeed in the new setting.

Goal-Setting Activity Prompt

Outline a detailed plan to enhance your adaptability and flexibility in learning over the next month. Include:

1. Specific areas where you want to improve.
2. Strategies for experimenting with different methods and seeking feedback.
3. How you will measure your progress and success.

Lesson 14: Summary and Reflection

Content

This final lesson will serve as a summary and reflection of the entire course, consolidating the knowledge and skills acquired over the previous sessions. Students will review key concepts related to growth mindset and positive psychology, reflect on their personal growth, and set future goals for continued development.

Objective

1.To review and consolidate key concepts from the course.

2.To reflect on personal growth and development throughout the course.

3.To set future goals for continued growth and application of a growth mindset.

Time

90 minutes

Learning Materials

1.Reflection worksheets.

2.Positive psychology approach cards.

3.Related videos on growth mindset and personal development.

Learning Activity Steps

1. Lead In (10 minutes)

The researcher will greet the students warmly and briefly recap the journey of the course, highlighting key moments and learning milestones. The researcher will ask students to share one key takeaway from the course to set a reflective tone. This will be followed by playing a short inspirational video that encapsulates the themes of growth mindset and positive psychology, motivating students to think about their personal growth.

2. Learning Activity (70 minutes)

(1) Review of Key Concepts (20 minutes)

The researcher will review the key concepts covered in the course, including the malleability of abilities, persistence, openness to feedback, effort as a pathway to mastery, embracing challenges, and adaptability in learning. The researcher

will highlight the connections between these concepts and the overall theme of a growth mindset. The researcher will encourage students to ask questions and share their reflections to ensure a comprehensive understanding.

(2) Personal Reflection Activity (20 minutes)

The researcher will provide reflection worksheets and guide students through a structured reflection activity. Students will be prompted to think about their personal growth, challenges they overcame, and how they applied the concepts learned in the course. The researcher will encourage students to write about specific experiences and insights gained. After completing the worksheets, students will pair up and share their reflections with a partner.

(3) Group Sharing and Discussion (15 minutes)

The researcher will divide the students into small groups and ask them to discuss their reflections and key takeaways from the course. Each group will identify common themes and lessons learned. The researcher will circulate among the groups, providing guidance and encouraging active participation. After the discussions, each group will share highlights from their discussions with the class.

(4) Goal-Setting Activity (15 minutes)

The researcher will guide students through a goal-setting activity where they outline specific, measurable, achievable, relevant, and time-bound (SMART) goals for their future development. Students will use the reflection worksheets to identify areas for continued growth and set actionable steps to achieve their goals. The researcher will provide support and feedback as students complete this activity.

3. Conclusion (10 minutes)

The researcher will summarize the key points discussed in the session, emphasizing the importance of continuous personal growth and the application of a growth mindset. The researcher will encourage students to keep their reflection worksheets and goal-setting plans as a reminder of their commitment to personal development. The session will conclude with a closing activity, such as a group cheer or

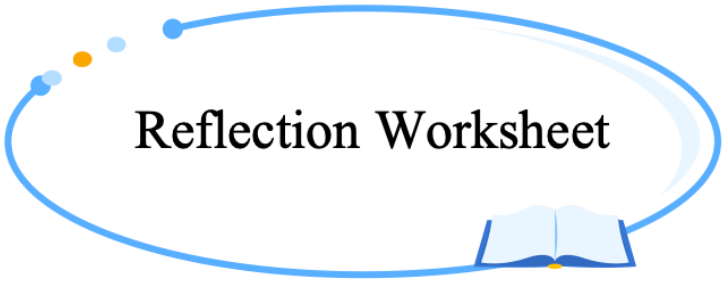
a moment of gratitude, to celebrate the completion of the course and the students' achievements.

Evaluation

The researcher will evaluate the students' participation in the review and discussion of key concepts by observing their engagement and enthusiasm. The researcher will take note of how actively students participate in the personal reflection and goal-setting activities. The quality and depth of reflections shared during the group sharing sessions will also be assessed to gauge the students' understanding and insights gained from the course. Additionally, the reflection worksheets and goal-setting plans will be evaluated based on how well students articulate their understanding of the key concepts, their personal growth, and their future goals. This comprehensive evaluation approach ensures that the researcher can effectively assess the students' learning outcomes and their commitment to applying a growth mindset in their ongoing personal and academic development.

Conclusion

Through this final teaching activity, students reviewed and consolidated the key concepts of growth mindset and positive psychology, reflecting on their personal growth and development throughout the course. They gained valuable insights into their achievements and challenges, setting specific goals for continued growth. By participating in diverse activities such as personal reflection, group sharing, and goal setting, students enhanced their self-awareness, collaboration, and planning skills. The reflective and goal-setting activities further encouraged students to commit to continuous learning and development, fostering a mindset geared towards lifelong growth and success.



Reflection Worksheet

1. Reflect on your personal growth throughout the course.

2. Identify key challenges you overcame and how you did it.

3. Outline specific areas where you saw improvement.

4. Set future goals for continued growth and application of a growth mindset.

Goal-Setting Worksheet

1. Identify specific, measurable, achievable, relevant, and time-bound (SMART) goals for your future development.

2. Outline actionable steps to achieve these goals.

3. Reflect on potential challenges and strategies to overcome them.

4. Set a timeline for reviewing and adjusting your goals.

VITA

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DATE OF BIRTH	22 March 1994