

# The Development of Instructional Packages using Growth mindset for Enhancing Positive Psychological Capital of Among Higher Education

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## Abstract

This study aimed to develop instructional packages using a growth mindset framework to enhance positive psychological capital among students of the Faculty of Education, Kasetsart University. The sample consisted of 30 students enrolled in the course on Educational Psychology and Guidance for Teachers, selected by purposive sampling. The research employed a positive psychological capital scale and a feedback questionnaire on the activities. Statistical analysis included mean, standard deviation, and the wilcoxon signed-rank test. The results indicated that the instructional packages effectively enhanced positive psychological capital, with the mean score increasing from 3.93 to 4.24, which is at the highest level. The wilcoxon signed-rank test showed that the p-value was less than 0.05, indicating that these improvements were statistically significant at the .05 level. Additionally, students' feedback on the activities was positive, indicating that the activities helped enhance self-understanding, motivation, and a more positive outlook on themselves and their lives.

**Keywords:** positive psychological capital, growth mindset, higher education

## 1. Introduction

Higher education is undergoing rapid transformation, driven by the exponential advancement of high technology (Denning, 2016), crises such as global pandemics, and the emergence of a multistage life model. This concept implies that individuals simultaneously take on multiple roles, such as studying, working part-time, and integrating leisure activities. As a result, higher education institutions must adapt their educational approaches to align with these evolving lifestyles. Additionally, with increasing life expectancy and the likelihood that individuals will pursue multiple careers throughout their lifetime (National Higher Education, Science, Research, and Innovation Policy Council, 2022), universities must respond to these changes to ensure that the country has a sufficiently skilled workforce capable of driving sustainable development.

In today's rapidly evolving world, higher education students must develop their potential not only through knowledge and skills but also by cultivating positive psychological capital (PsyCap), which enhances resilience, adaptability, and optimism. PsyCap, introduced by Luthans, Youssef & Avolio (2007), comprises four key components: self-efficacy, the belief in one's ability to succeed; perseverance toward goals, the motivation to overcome obstacles; optimism, a positive outlook on present and future success; and emotional resilience, the capacity to recover from challenges (Luthans, Youssef, & Avolio, 2007). Research by Siu, Bakker, and Jiang (2014) confirms that PsyCap positively correlates with student engagement and intrinsic motivation, highlighting its importance in higher education. By fostering PsyCap, students gain the emotional strength needed to navigate uncertainties and thrive in a complex, ever-changing world.

Beyond their study, Chen, Zeng, Chang, and Cheung (2019) examined variables such as well-being, positive psychological capital, growth mindset, and other personal factors among 1,384 primary school teachers from 34 schools in China. Their findings revealed a statistically significant correlation at the 0.01 level between PsyCap and growth mindset, suggesting that adopting a growth mindset may be an effective factor in developing positive psychological capital.

The growth mindset has gained recognition in Thailand, especially since 2017, when Dr. Teerakiat Jareonsettasin, then Minister of Education, emphasized its importance. He advocated for students to adopt a growth mindset, believing it would promote continuous learning, perseverance, and the ability to learn from mistakes (Office of the Minister, Ministry of Education, 2017).

Developed by Carol Dweck (2007), the growth mindset theory categorizes mindsets into two types. A growth mindset is the belief that intelligence and talent can be developed through effort, learning, and perseverance, encouraging individuals to view challenges as opportunities for growth. In contrast, a fixed mindset assumes that intelligence and abilities are innate and unchangeable, leading individuals to avoid challenges for fear of failure. Dweck's research has been widely applied across various fields, reinforcing the importance of fostering a growth mindset in education and beyond.

Positive psychological capital is a quality that should be cultivated and developed in university students, enabling them to adapt to an ever-changing society. By fostering positive psychological capital, students can become valuable contributors to building a better society. This is particularly crucial for education students, as their role as future educators directly impacts the development of learners, who will ultimately serve as essential human resources for the country.

Developing positive psychological capital among education students is essential to ensuring they possess key characteristics such as self-efficacy, perseverance toward goals, optimism, and emotional resilience. These qualities not only support their own personal and professional growth but also position them as role models for their future students. As educators, they will play a significant role in instilling these desirable traits in the next generation, shaping students who can contribute meaningfully to society.

This initiative aligns with the Faculty of Education at Kasetsart University, which prioritizes producing graduates who excel in both academic and professional competencies while upholding ethics, morality, and professional standards (Faculty of Education, Kasetsart University, 2023). It is also consistent with Kasetsart University's broader policy, which emphasizes the holistic development of students, including both physical and mental well-being.

Given this context, the researcher is particularly interested in studying the development of an activity set based on the growth mindset framework to enhance positive psychological capital among education students at Kasetsart University. The goal is to equip future teachers with self-efficacy, hope, optimism, and emotional resilience, enabling them to serve as role models for their students. By fostering these qualities, students will be better prepared to contribute as capable and well-rounded human resources, ensuring the continued development of the nation.

## 2. Research Objectives

To develop an activity set based on the growth mindset framework to enhance positive psychological capital.

To compare the positive psychological capital of students before and after participating in the activity set based on the growth mindset framework.

To examine students' perceptions of participating in the activity set based on the growth mindset framework for enhancing positive psychological capital.

## 3. Research Framework

This study is based on the positive psychological capital (PsyCap) theory by Luthans, Youssef, and Avolio (2007) and the growth mindset theory by Carol Dweck (2007). The framework integrates these concepts to examine how growth mindset-based activities can enhance positive psychological capital among education students.

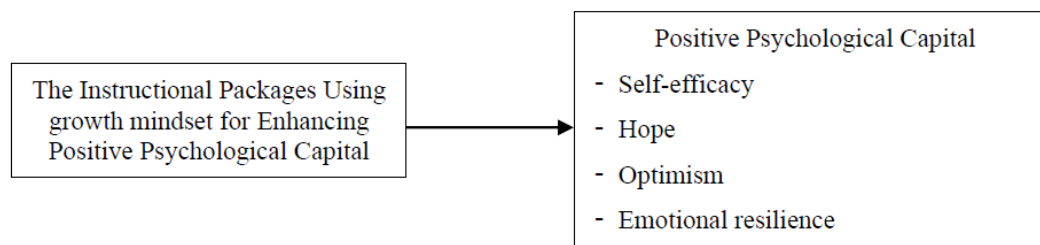


Figure 1. Research Framework

#### 4. Research Hypothesis

After participating in the activity set, the target group of students will demonstrate an improvement in positive psychological capital, as indicated by higher scores on the positive psychological capital scale compared to their pre-activity scores. The activity set, based on the growth mindset framework, is expected to effectively enhance their positive psychological capital.

#### 5. Research Methodology

This study, titled "The development of an activity set based on the growth mindset framework to enhance positive psychological capital among education students at Kasetsart University," employs a quasi-experimental research design. The study is conducted using an experimental group, where the dependent variable is measured both before and after the intervention to assess the impact of the growth mindset-based activity set on positive psychological capital.

The population for this study consists of students from the Faculty of Education who were enrolled in the course 01150241: Educational Psychology and Guidance for Teachers during the second semester of the 2023 academic year at Kasetsart University.

The research sample was selected using purposive sampling, comprising 30 students. This course is a compulsory subject for education students, meaning that the participants are likely to pursue teaching careers in the future.

Given the significance of positive psychological capital in the teaching profession, it is essential for future educators to develop key psychological strengths such as self-efficacy, perseverance, optimism, and emotional resilience. These qualities enable teachers to create meaningful and effective learning environments for their students. Furthermore, as role models, teachers who embody positive psychological capital can pass these attributes on to their students, contributing to their long-term personal and academic development.

##### 5.1 Inclusion, Exclusion, and Withdrawal Criteria

Participants in this study were required to meet the following inclusion criteria: they had to be students at Kasetsart University during the 2023 academic year, aged 18 years or older, enrolled in the course 01150241: Educational Psychology and Guidance for Teachers in the second semester, and provide informed consent to participate. However, participants were excluded if they declined to provide the necessary information or did not voluntarily participate in the activities. Additionally, participants could withdraw at any time if they chose to leave the study or if they withdrew from the course, which would render them ineligible for further participation.

##### 5.2 Research Instruments

This study employed a growth mindset-based activity set to enhance positive psychological capital (PsyCap) among education students at Kasetsart University. The research instruments were categorized into two types: experimental instruments and data collection instruments.

###### 5.2.1 Experimental Instruments

The growth mindset-based activity set was developed based on the theories of Dweck (2007) and Luthans, Youssef, and Avolio (2007). Designed through literature reviews and prior research, the activities aimed to cultivate students' belief that abilities can be developed through effort, learning, and perseverance. The activities emphasized embracing challenges, learning from failure, and problem-solving, contributing to the strengthening of PsyCap.

Each activity was structured with key components, including the title, duration, objectives, theoretical concepts, procedures (introduction, execution, and conclusion), and instructional tools. The activity set consisted of 10 structured activities categorized into three main principles of the growth mindset: (1) Belief in the ability to improve, (2) Effort, learning, and perseverance, and (3) Learning from failure and problem-solving.

The activities covered self-awareness, success habits, overcoming limitations, inspiring success stories, problem-solving tasks, and resilience-building exercises. To support the learning process, the activities were accompanied by reflection journals, knowledge sheets, and worksheets, all reviewed by experts for validity and quality.

###### 5.2.2 Data Collection Instruments

This study utilized two key instruments for data collection

Positive psychological capital scale - Adapted from Chotianan Chaowsujarit (2019), based on the Psychological Capital Model (Luthans et al., 2007). The scale consists of 40 items measured on a 5-point rating scale, assessing

various dimensions of PsyCap.

**Student Feedback Questionnaire** - Designed to measure students' perceptions of the growth mindset-based activities, this questionnaire included both closed-ended and Likert-scale items (5-point rating scale) to assess the effectiveness and impact of the activities in fostering PsyCap.

### *5.3 Data Collection Process*

The researcher submitted the positive psychological capital scale, growth mindset-based activity set, and student feedback questionnaire to three experts in relevant fields for content validity assessment using the Index of Item-Objective Congruence (IOC) (Suwaree Siriwokephirrom, 2003). Items with an IOC score of 0.6 or higher were considered valid, while those below this threshold were revised or removed. The analysis showed that the positive psychological capital scale (40 items) had an IOC of 0.93, the growth mindset-based activities (10 sets) had an IOC of 0.97, and the student feedback questionnaire (20 items) had an IOC of 1.00, all meeting the required standards.

The research team incorporated expert feedback to refine the research instruments.

The revised positive psychological capital scale and student feedback questionnaire were tested in a pilot study with 30 participants similar to the target group. The reliability was assessed using Cronbach's alpha coefficient (Cronbach, 1971). Items with a corrected item-total correlation below 0.20 were removed if their removal improved the overall alpha coefficient.

The final research instruments were submitted to Kasetsart University's Human Research Ethics Committee, and ethical approval was granted under approval number COE67/007 on January 29, 2024. The researcher also obtained informed consent from participants before data collection.

A pre-test using the positive psychological capital scale was conducted with participants before the intervention.

The experimental phase involved implementing the growth mindset-based activity set with 30 education students. The intervention was conducted once a week for 60 minutes over 10 weeks.

After completing the intervention, a post-test using the positive psychological capital scale was conducted to assess changes in positive psychological capital following participation in the activities.

### *5.4 Data Analysis*

The research team used descriptive statistics to analyze data from the positive psychological capital scale, assessing changes before and after the growth mindset-based intervention. Statistical methods included percentage, mean, and standard deviation to evaluate improvements in psychological resilience, self-efficacy, optimism, and perseverance, providing insights into the effectiveness of the activities.

## **6. Result**

Before participating in the growth mindset-based intervention, the target group of education students at Kasetsart University had an average positive psychological capital (PsyCap) score of 3.93 (SD = 0.70). When analyzed by individual components, emotional resilience had the highest mean score of 4.14 (SD = 0.57), categorized as "high." This was followed by hope, with a mean of 3.96 (SD = 0.67), also at a "high" level. Self-efficacy had a mean score of 3.89 (SD = 0.71), while optimism had the lowest score at 3.74 (SD = 0.65), both still classified as "high."

These results indicate that before the intervention, students' positive psychological capital was already at a relatively high level across all dimensions, with emotional resilience and hope scoring the highest. This suggests that students demonstrated strong psychological adaptability and perseverance, making them well-positioned to benefit from activities designed to further enhance their growth mindset and positive psychological capital.

Following the growth mindset-based intervention, the average positive psychological capital (PsyCap) score among education students at Kasetsart University increased to 4.24 (SD = 0.82). Among the PsyCap components, hope had the highest mean score at 4.32 (SD = 0.76), followed by emotional resilience at 4.29 (SD = 0.69), both classified at the "highest" level. Meanwhile, optimism scored 4.19 (SD = 0.80), and self-efficacy reached 4.15 (SD = 0.90), both categorized as "high."

The analysis demonstrates a notable improvement in positive psychological capital across all dimensions after participating in the activities. The most significant increases were observed in hope and emotional resilience, indicating that students developed a stronger belief in their ability to overcome challenges and maintain a positive outlook toward future success. These findings confirm the effectiveness of growth mindset-based activities in enhancing students' psychological adaptability and perseverance.

Table 1. Comparison of mean scores on the positive psychological capital scale before and after participation in growth mindset-based activities to enhance positive psychological capital among education students at Kasetsart University

Group	Rank Type	N	Mean Rank	Sum of Ranks	Z	P	Ties
Pre-Test	Negative Rank Differences	4	11.5	46	3.987	0.000196	3
Post-Test	Positive Rank Differences	23	17.96	413			
Total		27		456			

Table 1 shows that the Wilcoxon signed-rank test results indicated a statistically significant difference between the pre-test and post-test mean scores of positive psychological capital (PsyCap), with a p-value of 0.000196 ( $p < 0.05$ ). This finding confirms that the target group of students demonstrated a significant increase in PsyCap after participating in all 10 growth mindset-based activities. The results highlight the effectiveness of the intervention in enhancing students' psychological resilience, optimism, perseverance, and self-efficacy at a statistically significant level of 0.05.

The average student perception score before participating in the growth mindset-based activities was 3.73 (SD = 0.46), categorized as "high." After the intervention, the mean perception score increased to 4.60 (SD = 0.40), reaching the "highest" level.

The analysis indicates that the Growth mindset-based activities had a significant impact on enhancing students' positive psychological capital, as reflected in the substantial improvement in their perceptions. The shift from "high" to "highest" suggests that students recognized and valued the effectiveness of these activities in fostering psychological resilience, optimism, and self-efficacy.

Table 2. Comparison of mean scores on the student perception questionnaire before and after participation in growth mindset-based activities to enhance positive psychological capital among education students at Kasetsart University

Group	Rank Type	N	Mean Rank	Sum of Ranks	Z	P	Ties
Pre-Test	Negative Rank Differences	20	10.5	210	-3.99	0.0001	0
Post-Test	Positive Rank Differences	1	21	17.96			
Total		21		227.96			

Table 2 shows that the Wilcoxon signed-rank test resulted in a p-value of 0.000196 ( $p < 0.05$ ), indicating a statistically significant difference in students' perceptions before and after participating in the growth mindset-based activities. This finding confirms that the target group exhibited a significant increase in their perception scores at a 0.05 significance level after completing all 10 activities.

## 7. Discussion

To enhance positive psychological capital (PsyCap) through a growth mindset-based activity set, the research team synthesized insights from Dweck (2007) and Luthans et al. (2007), designing 10 structured activities based on three principles (1) belief in the ability to develop, (2) effort, learning, and perseverance, and (3) learning from failure and problem-solving.

Activities in this study emphasized goal-setting, strategic planning, and reflection on past failures—key processes that help students recognize challenges as opportunities for growth. Recent research suggests that these elements work synergistically to strengthen self-efficacy and perseverance (Zhou & Li, 2021). By guiding participants to reframe difficulties as manageable tasks and systematically reflect on their experiences, the activities likely lowered psychological barriers linked to a fixed mindset (Tan, Chen, & Liu, 2022). This synergy between an incremental view of personal ability and a supportive learning environment may have driven the noted improvements in self-efficacy, hope, optimism, and emotional resilience.

Following the finalization of the activity set, the research team conducted a pre- and post-intervention comparison of students' positive psychological capital. Mean PsyCap scores rose from 3.93 to 4.24, an increase observed across all components. Specifically, self-efficacy improved from 3.89 to 4.15, hope from 3.96 to 4.32, emotional resilience from 4.14 to 4.29, and optimism from 3.74 to 4.24. Statistical analysis using the Wilcoxon signed-rank test yielded a p-value of .000196 ( $p < .05$ ), confirming that these gains were statistically significant. Taken together, these findings underscore how an incremental belief in one's abilities reinforced through reflection, strategic planning, and an acceptance of mistakes can robustly enhance students' PsyCap and promote

long-term personal growth.

These results align with Carol Dweck's (2007) growth mindset theory, which suggests that fostering a growth mindset enhances individuals' confidence in their abilities and reinforces the belief that success results from effort and learning. The findings also support research by Blackwell, Trzesniewski, and Dweck (2007), which highlights that individuals with a Growth mindset are more likely to embrace challenges and learn from failures compared to those with a fixed mindset. Notably, hope and emotional resilience showed the most significant improvements, reinforcing the effectiveness of growth mindset interventions in building students' psychological adaptability and perseverance.

The findings of this study align with the research of Chanita Rungreung and Seree Chadchaem (2016), which emphasized the development of obstacle management and adaptability skills to enhance positive psychological capital (PsyCap). Their study demonstrated that engaging in diverse learning activities, such as experimenting with new challenges and receiving constructive feedback, effectively strengthened students' PsyCap. Similarly, the research by Chen, Zeng, Chang, and Cheung (2019) found a significant correlation between growth mindset and positive psychological capital, further supporting the effectiveness of growth mindset-based activities in fostering PsyCap. Additionally, Yeager and Dweck (2012) highlighted that a Growth mindset helps reduce stress and promote mental well-being in adolescents, improving emotional resilience a key component of PsyCap by enabling individuals to handle challenges more effectively.

A strong indicator of the study's success is the students' perceptions of the growth mindset-based activities. before participating, their average perception score was 3.73 (high level), which increased to 4.60 (highest level) after the intervention. further analysis using the wilcoxon signed-rank test confirmed a statistically significant difference between pre- and post-test perception scores ( $p\text{-value} = 0.000196$ ,  $p < 0.05$ ), demonstrating a significant improvement in students' attitudes toward the activities. these results indicate that the growth mindset-based activities were well-received and effectively contributed to enhancing positive psychological capital among students.

During the final session of the growth mindset-based activities, students participated in an after-action review (AAR) to reflect on their experiences. Most students reported that the activities provided valuable lessons applicable to both their academic and personal lives. For instance, one student stated, "I have learned not to give up, no matter how difficult the challenges may be. I will persist until I reach my goals." Another student emphasized, "I have adopted a growth mindset in all situations, rather than a fixed mindset, and have also learned the importance of being a good leader."

Overall, students expressed positive attitudes toward positive psychological capital, showing increased motivation and a more optimistic outlook on life. Several activities contributed to this transformation, such as the lesson on Jack Ma, which highlighted perseverance, resilience, and overcoming challenges. Similarly, the session on Nelson Mandela emphasized the power of forgiveness and emotional resilience, encouraging students not to dwell on difficulties but to focus on positive outcomes for themselves and others. Additionally, the case study of Steve Jobs illustrated how failure, learning, and persistence enabled him to rebuild Apple into a global success.

These reflections align with the measured improvements in positive psychological capital, where the average score increased from 3.93 (high level) to 4.24 (highest level). Similarly, students' perceptions of the activities improved significantly, with the average score rising from 3.73 to 4.60. These findings support the research by Flanigan et al. (2017), which examined growth mindset development among first-year computer science students. Their study found that high learning motivation contributed to growth mindset shifts, leading to better academic performance and a greater ability to view failure as an opportunity for learning and growth. This concept reinforces the idea that failure should not be feared or avoided but embraced as a critical step in personal and intellectual development.

The findings of this study provide clear evidence of the significance of growth mindset in enhancing positive psychological capital (PsyCap) within educational settings. The design and implementation of growth mindset-based activities proved to be an effective tool for developing students' psychological strengths, fostering resilience, perseverance, and optimism, which contribute to their long-term personal and academic growth.

Furthermore, these findings highlight the potential application of growth mindset principles in teacher education programs, equipping education students with the necessary psychological resources to thrive as future educators. By integrating growth mindset into their teaching practices, future teachers can play a pivotal role in nurturing students who view challenges as opportunities for growth, ultimately contributing to the development of high-quality human resources for the nation.

## 8. Conclusion

This study investigated the development of an activity set based on the growth mindset framework to enhance positive psychological capital among students in the Faculty of Education at Kasetsart University. The quasi-experimental research aimed to (1) develop an activity set incorporating the growth mindset framework, (2) compare students' levels of positive psychological capital before and after participating in the activities, and (3) explore students' perceptions of the activities.

The findings indicated that the activity set significantly enhanced students' positive psychological capital. The mean score increased from 3.93 (SD = 0.70) before the intervention to 4.24 (SD = 0.82) after the intervention, demonstrating a statistically significant improvement ( $p$ -value = 0.000196). Among the four components of psychological capital, hope had the highest post-intervention mean ( $M = 4.32$ ,  $SD = 0.76$ ), followed by emotional resilience ( $M = 4.29$ ,  $SD = 0.69$ ), optimism ( $M = 4.19$ ,  $SD = 0.80$ ), and self-efficacy ( $M = 4.15$ ,  $SD = 0.90$ ). Additionally, students' perceptions of the activities improved significantly, with the mean score increasing from 3.73 (SD = 0.46) to 4.60 (SD = 0.40).

The statistical analysis using the Wilcoxon signed-rank test confirmed that the differences in psychological capital and student perceptions before and after participating in the activities were statistically significant ( $p$ -value = 0.000196). These results highlight the effectiveness of the growth mindset framework in fostering psychological capital, emphasizing its potential to enhance students' self-belief, perseverance, and resilience—critical attributes for future educators.

Overall, this research underscores the significance of integrating growth mindset principles into educational practices. The structured activities based on this framework effectively promoted psychological capital, supporting the development of future teachers with the mindset and resilience necessary for professional and personal growth. These findings contribute to the broader discourse on psychological capital in education, offering an evidence-based approach to enhancing students' psychological well-being and adaptability in learning environments. Future research could further explore long-term impacts and applications across diverse educational contexts.

## 9. Recommendations

### 9.1 Recommendations for Practical

Higher education institutions should consider integrating growth mindset-based activities into various academic programs to foster positive psychological capital among students. This will equip them with the resilience and adaptability needed to overcome challenges and navigate complex situations effectively.

Training programs for educators and academic staff should be implemented to enhance their understanding of the growth mindset framework and its role in strengthening positive psychological capital. This knowledge will enable educators to integrate these principles into their teaching and student guidance more effectively.

Continuous evaluation and refinement of the activity set should be conducted to ensure its relevance and effectiveness. Regular feedback from participants should be utilized to adapt the activities to meet evolving educational needs and environmental changes.

Higher education institutions can embed growth mindset activities in guidance or counseling courses by starting sessions with brief "mindset reflection," where students identify potential challenges and brainstorm strategies to overcome them. Including case studies of individuals who reframed failures fosters connection to students' own circumstances. By integrating growth mindset components such as reflection journals, group discussions, or peer feedback educators ensure these strategies become part of the standard curriculum rather than a one-off intervention.

### 9.2 Recommendations for Future Research

Future studies should expand the sample scope to include education majors from different regions and levels of institutions to enhance the generalizability of the findings.

Conduct longitudinal follow-up studies to examine the sustained impact of the activity set on the development of positive psychological capital and the growth mindset among students.

Investigate additional supporting factors, such as family support, interpersonal relationships, or educational environments, that may influence the development of positive psychological capital.

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### **Authors contributions**

Assoc.Prof.Dr.Jittinun Boonsathirakul oversaw the overall study design, developed the instruments, and led data collection.

Kumaree Pholpasee contributed to instrument development and assisted in data collection.

Carlos Boonsupa carried out data analysis, summarized the findings, and took part in instrument development.

All authors read and approved the final manuscript.

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### **Data sharing statement**

No additional data are available.

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