

A Study on the Effects of Learning Journals on Enhancing University Students' Growth Mindset in the Course of Early Childhood Health and Safety Development: A Mixed Methods Approach

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Abstract

This study investigated the effects of learning journals on enhancing university students' growth mindset in the course Early Childhood Health and Safety Development. A mixed-methods design integrating quantitative and qualitative approaches was employed with 87 undergraduate participants. Quantitative data were collected using pre- and post-intervention Growth Mindset Scales, while qualitative data were derived from learning journals and in-depth interviews with 10 students. Descriptive statistics and paired sample t-tests were used to analyze quantitative data, and content analysis was applied to qualitative data. Results revealed a significant increase in growth mindset scores after the intervention ($M = 4.32$, $SD = 0.45$) compared to pre-intervention ($M = 3.78$, $SD = 0.52$), $t(86) = 6.54$, $p < .01$, across dimensions of learning confidence, challenge coping, and viewing failures as learning opportunities. Qualitative findings indicated that reflective journaling enhanced self-awareness and fostered adaptive learning strategies. Overall, learning journals proved effective in promoting growth mindset, supporting self-directed learning, and facilitating continuous personal development. This approach may be applicable across other courses to cultivate reflective learning practices.

Keywords: learning journals, growth mindset, mixed methods research, reflective practice

1. Introduction

The concept of the Growth Mindset has gained widespread recognition in educational research. Rooted in the work of Dweck (2006), it posits that intelligence and abilities are not fixed traits but can be developed through effort, perseverance, and learning from failure. Learners who possess a growth mindset view challenges and setbacks as opportunities for improvement rather than indicators of inability (Yeager & Dweck, 2012). Empirical studies have shown that such learners demonstrate greater goal commitment, adopt more challenging learning strategies, and display higher adaptability (Claro, Paunesku, & Dweck, 2016).

In higher education—particularly in Early Childhood Education—first-year students are expected to engage with interdisciplinary content involving health, safety, nutrition, and child development. Sole reliance on theoretical instruction may not sufficiently cultivate deep understanding or the ability to apply knowledge in real-life contexts. Reflective learning processes, such as learning journals, provide students with opportunities to critically analyze experiences, question underlying assumptions, and develop adaptive learning strategies (Boud, Keogh, & Walker, 2013; Moon, 2006). Learning journals thus function not only as a record of learning experiences but as a reflective space for examining and transforming one's mindset (Dweck, 2006).

Although learning journals have been extensively studied in nursing, teacher training, and professional development, their application to Growth Mindset development—particularly in Thai higher education—remains limited. Previous research (Sujitra Treerattanakul, 2019; Sucheera Mahimuang, 2022) demonstrated that reflective thinking enhances professional skills and metacognitive awareness. However, few studies have quantitatively and qualitatively examined the impact of reflective journaling on the development of growth mindsets in early childhood education courses.

This study adopts a Mixed Methods Research approach (Creswell & Plano Clark, 2018) to integrate quantitative measurement of growth mindset levels and qualitative exploration of students' reflective experiences. Such methodological integration enables a comprehensive understanding of both outcomes and underlying processes.

Theoretically, this study expands knowledge on fostering growth mindsets through reflective learning in early childhood education. Practically, it provides a pedagogical framework for university instructors to design learning activities that cultivate reflective practice and long-term learning resilience among pre-service early childhood educators.

2. Objective

This research aims to: 1) examine the effects of learning journals on enhancing university students' growth mindset in the course Early Childhood Health and Safety Development. 2) explore students' reflective learning experiences and perceptions regarding how journaling contributes to their mindset transformation.

3. Methodology

This study employed a mixed-methods research design, integrating quantitative and qualitative approaches to comprehensively examine the effects of using learning journals on students' growth mindset. The quantitative phase focused on measuring changes in growth mindset levels before and after the intervention, while the qualitative phase explored students' reflective learning experiences through journal entries and interviews.

The participants were 87 undergraduate students enrolled in the Early Childhood Health and Safety Development course at Suan Sunandha Rajabhat University during the first semester. Participants were selected through purposive sampling, as they were directly involved in reflective learning activities designed for this course.

Three research instruments were employed in this study to collect both quantitative and qualitative data: the Growth Mindset Scale, Learning Journals, and an In-depth Interview Guide. Each instrument was designed to align with the study's objectives and ensure methodological rigor.

The data collection process was conducted in four phases: pre-test, intervention, post-test, and qualitative exploration. Each phase was systematically designed to ensure methodological consistency and to capture both quantitative outcomes and qualitative insights into students' learning experiences.

The collected data were analyzed using both quantitative and qualitative approaches, corresponding to the mixed-methods research design employed in this study. The integration of these analyses allowed for a comprehensive understanding of changes in students' growth mindset and the underlying reflective learning processes.

4. Results

1. Effects of Learning Journals on Students' Growth Mindset

Quantitative analysis indicated that the use of learning journals significantly enhanced students' growth mindset. Table 1 presents the descriptive statistics and paired-sample t-test results for the three dimensions of growth mindset: learning confidence, challenge coping, and viewing failures as learning opportunities.

Table 1 Pre- and Post-Test Scores of Growth Mindset (N = 87)

Dimension	Pre-test Mean (SD)	Post-test Mean (SD)	t	p
Learning Confidence	3.82 (0.51)	4.34 (0.42)	6.12	< .01
Challenge Coping	3.74 (0.53)	4.28 (0.46)	5.87	< .01
Viewing Failures as Learning Opportunities	3.78 (0.52)	4.32 (0.45)	6.54	< .01

Table 1 shows that the growth mindset scores increased significantly across all dimensions following the intervention. These results indicate that weekly reflective journaling effectively enhanced students' learning confidence, their ability to cope with challenges, and their propensity to view failures as opportunities for learning.

2. Students' Reflective Learning Experiences

Qualitative analysis of learning journals and interview data revealed three main themes regarding how journaling influenced students' growth mindset:

(1) Enhanced Self-Awareness

Students reported that reflective journaling allowed them to identify their strengths and weaknesses, recognize emotional responses to challenges, and evaluate their learning strategies.

"Writing weekly journals helped me realize when I was avoiding difficult tasks and encouraged me to face them instead."

(2) Positive Reinterpretation of Challenges

Journaling encouraged students to reflect on mistakes and setbacks as learning opportunities rather than personal failures. This shift in perspective fostered persistence and adaptability.

"When I failed in a task, I wrote about what I could learn from it rather than feeling discouraged."

(3) Development of Adaptive Learning Strategies

Students described adopting new approaches to learning after reflecting on past experiences. Journaling facilitated planning, goal-setting, and strategic adjustments in their study habits.

Reflecting on my weekly progress helped me organize my tasks more effectively and try different strategies for better results."

Overall, the qualitative findings complemented the quantitative results by illustrating the cognitive and emotional mechanisms through which journaling facilitated growth mindset development.

5. Conclusion And Future Work

The study demonstrated that weekly reflective journaling significantly enhances university students' growth mindset in the course Early Childhood Health and Safety Development. Students showed improved learning confidence, better coping with challenges, and a greater tendency to view failures as opportunities for learning. Reflective journaling also fostered self-awareness, critical thinking, and adaptive learning strategies, confirming its effectiveness as a pedagogical tool for promoting growth mindset and self-directed learning.

Implications

1. **Pedagogical Practice:** Instructors can integrate structured reflective journaling into early childhood education courses to cultivate growth mindset, resilience, and self-directed learning among students.

2. **Curriculum Design:** Journaling can be combined with experiential learning, peer discussions, and feedback to enhance engagement and deepen learning outcomes.

3. **Higher Education Policy:** Institutions may consider promoting reflective practices as a core component of teacher training programs to develop students' lifelong learning skills and adaptive competencies.

Recommendations for Further Research

Building upon the findings and discussions of the present study, several directions for future research are proposed to deepen the understanding of reflective journaling and its influence on university students' growth mindset. These recommendations aim to extend the current knowledge base and provide a more comprehensive perspective on the pedagogical, psychological, and contextual factors that contribute to mindset development in higher education.

1. Comparative Studies Across Courses and Disciplines

Future research could compare the effects of reflective journaling on growth mindset across different courses, programs, or disciplines, such as nursing, teacher education, or social sciences. By examining similarities and differences in mindset development across various learning contexts, researchers can identify generalizable strategies and course-specific adaptations.

2. Exploring Individual Differences

Further studies should investigate how individual characteristics such as prior academic experience, learning styles, personality traits, and motivation interact with reflective journaling to influence growth mindset development. This could provide insights into personalized strategies for fostering mindset transformation.

3. Longitudinal Research

Longitudinal studies are recommended to assess the sustained impact of reflective journaling on growth mindset over time. Tracking students' mindset development across multiple semesters would provide robust evidence of long-term benefits and help determine whether journaling fosters lasting behavioral and cognitive changes.

4. Integration with Feedback and Instructional Strategies

Future research could examine the effectiveness of integrating reflective journaling with instructor or peer feedback, collaborative discussions, or experiential learning activities. Understanding how these combinations influence growth mindset could inform the design of holistic and engaging learning interventions.

5. Cross-Cultural Research

Investigating reflective journaling and growth mindset development in different cultural or institutional contexts could reveal the role of cultural values, educational norms, and

institutional practices. Such studies may provide guidance for culturally responsive pedagogical approaches.

By pursuing these directions, future research can provide deeper insights into effective methods for promoting growth mindset and reflective learning in higher education, contributing to both theoretical development and practical teaching strategies.

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