บทความวิจัย

A Study of Learning Achievement in Life Skills and Brain Competency of Educational Personnel in the University: A Meditation Practice Project in the Buddhist Holy Land of Thailand, India, and Nepal

Ntapat Worapongpat

Eastern Institute of Technology Suvarnabhumi (EIT) and Doctor of Philosophy Program in Social Administration and Development, Rajabhat Maha Sarakham University (RMU)

วันที่รับบทความ : วันที่ 16 กุมภาพันธ์ 2568

วันที่ส่งบทความที่แก้ไข : วันที่ 8 มิถุนายน 2568

วันที่ตอบรับบทความเพื่อตีพิมพ์ : วันที่ 9 มิถุนายน 2568

ABSTRACT

This research aims to 1) examine the learning achievement in life skills of educational personnel participating in the Meditation Practice Project in the Buddhist Holy Lands of India, Nepal, and Thailand; 2) evaluate cognitive competence development; and 3) explore the relationship between meditation practice, life skills learning, and cognitive competence among the project participants. This study is a mixed-methods research, integrating both qualitative and quantitative approaches. The research instruments included questionnaires and in-depth interviews. The sample group consisted of 120 educational personnel selected through purposive sampling. Quantitative data from the questionnaires were analyzed using descriptive statistics, including percentages, means, standard deviations, and inferential statistics such as paired-samples t-test, Pearson's correlation coefficient, and multiple regression analysis. Qualitative data collected from in-depth interviews were analyzed using content analysis. The findings revealed that learning achievement in life skills was at a high level across all dimensions, with post-program scores significantly higher than pre-program scores (Effectiveness Index = 71.88%). Cognitive competence was also found to be high in all studied areas. A strong positive correlation was identified between overall life skills learning and overall cognitive competence ($r = 0.743$, $p < .01$). Multiple regression analysis further indicated that adaptability to change, self-awareness, interpersonal relationships, and virtue and ethics in daily life were significant positive predictors of cognitive competence.

KEYWORDS: Life Skills, Cognitive Competence, Meditation Practice Project, Buddhism

Introduction

In the contemporary educational landscape, university personnel face unprecedented challenges stemming from increased workloads, rapid technological advancements, and evolving demands for interdisciplinary collaboration. These pressures can significantly impact their well-being, leading to heightened stress levels and potentially diminishing their life skills and cognitive performance, which are crucial for effective teaching, research, and administration. Addressing these challenges is paramount for the advancement of the country's education system. (Worapongpat, 2024a).

This study explores the profound role of meditation practices in enhancing the life skills and brain competency of educational personnel in public universities. Numerous studies have consistently demonstrated that meditation contributes positively to the development of essential life skills, including emotional regulation, enhanced focus, and effective decision- making, alongside improvements in brain competencies vital for work, learning, and adaptability in diverse situations (Worapongpat, 2024b). Furthermore, meditation has been shown to be effective in stress reduction and improving the ability to perform efficiently under pressure. These findings suggest that engaging in focused meditation practices, particularly in culturally significant locations, can significantly bolster both life skills and cognitive abilities (Worapongpat & Xiaoling, 2024).



Figure 1: Participants of meditation practice projects in the holy lands of Buddhism, Thailand, India, and Nepal.

Despite the growing body of evidence, there remains a notable research gap concerning the specific outcomes of systematic meditation practice among educational personnel in public universities (Worapongpat, Khamcharoen, Nipaporn, & Cong, 2024). This research endeavors to bridge this gap by providing empirical insights into how such practices can foster personal resilience, professional growth, and ultimately contribute to a more sustainable and high-performing academic environment (Worapongpat, Purisuttamo, Phrakhruudombodhivides (Narong Uttamavangso Sendaranath), Arunyakanon, & Dookarn, 2024). The findings will not only advance the academic understanding of contemplative practices in educational settings but also offer practical strategies for institutional well-being programs within the higher education sector, particularly within the framework of Buddhist teachings (Worapongpat, 2023).

This study focuses on educational personnel from public universities in Thailand who participated in a structured Meditation Practice Project across the significant Buddhist Holy Lands of Thailand, India, and Nepal (Bannarat, Chanpradit, Worapongpat, Thanadol, & Wongsan, 2024). These locations were chosen for their deep spiritual heritage, which facilitates the integration of profound spiritual development with the enhancement of professional competencies (Worapongpat, 2022). The target group comprises educational personnel actively seeking to develop their life skills and brain competency to improve work efficiency and effectively manage stress. By adopting a comprehensive and participatory mixed-methods approach integrating both quantitative and qualitative methodologies through questionnaires and interviews this research aims to gain a deeper understanding of the intricate relationship between dedicated meditation practice and the holistic development of life skills and brain competency. The data will be analyzed using descriptive statistical methods to derive robust conclusions.

The key outcome of this study is to establish evidence-based, effective strategies for promoting life skills and brain competency among educational personnel in public universities. These strategies are anticipated to contribute significantly to their personal well-being, professional growth, and the overall enhancement of institutional effectiveness, serving as a model for future initiatives in contemplative education.

Objectives

1. To assess the development of life skills among educational personnel in public universities participating in the Meditation Practice Project in the Buddhist Holy Lands.

2.To evaluate the brain competency of educational personnel following their participation in the Meditation Practice Project in the Buddhist Holy Lands.

3.To explore the relationship between meditation practice and the enhancement of both life skills and brain competency among educational personnel in public universities.

Literature Review and Conceptual Framework

1. Development of Life Skills through Meditation Practices

Meditation practices conducted in sacred Buddhist lands, including Thailand, India, and Nepal, are recognized as an effective approach for enhancing crucial life skills. These practices particularly benefit emotional management, stress handling, and overall adaptability in daily life. Research by Smith et al. (2023) highlights that meditation cultivates emotional stability and refines problem-solving capabilities by improving focus and emotional regulation. Similarly, studies have shown that mindfulness training can significantly enhance decision-making and problem-solving skills in both work and personal life contexts (Budd et al., 2020). While Budd et al. (2020) specifically noted the role of interaction with nature alongside mindfulness, the core principle of focused mental training remains consistently linked to improved cognitive and emotional functioning.

3.2 Cognitive Competencies and Capability Development in Educational Personnel

Research consistently indicates that meditation can stimulate various cognitive functions essential for academic and professional roles, such as memory, critical thinking, and decision-making abilities. revealed that meditation practices among educational personnel not only lead to improved cognitive performance but also foster long-term skill development. While Thompson's work also touched upon moral development, within the scope of this study, the primary focus remains on the measurable enhancements in cognitive functions and life skills directly relevant to professional effectiveness.

3.3 Knowledge Gaps and Application in Educational Institutions

Despite extensive studies on the general impact of meditation on life skills and cognitive competencies, there remains a significant gap in research specifically connecting systematic meditation practices to the unique context of educational personnel in public universities. underscored the necessity for in-depth investigations in specific cultural and spiritual contexts, such as the Buddhist sacred lands, where the influence of profound meditation practices on professional capabilities largely remains underexplored. This gap highlights the potential for this research to contribute novel insights by focusing on a specific demographic and a particular mode of intervention.

Conceptual Framework

Based on the foregoing literature review, this research adopts a conceptual framework that posits a direct relationship between meditation practices and the enhancement of life skills and brain competency among educational personnel. This framework is visually represented as follows:

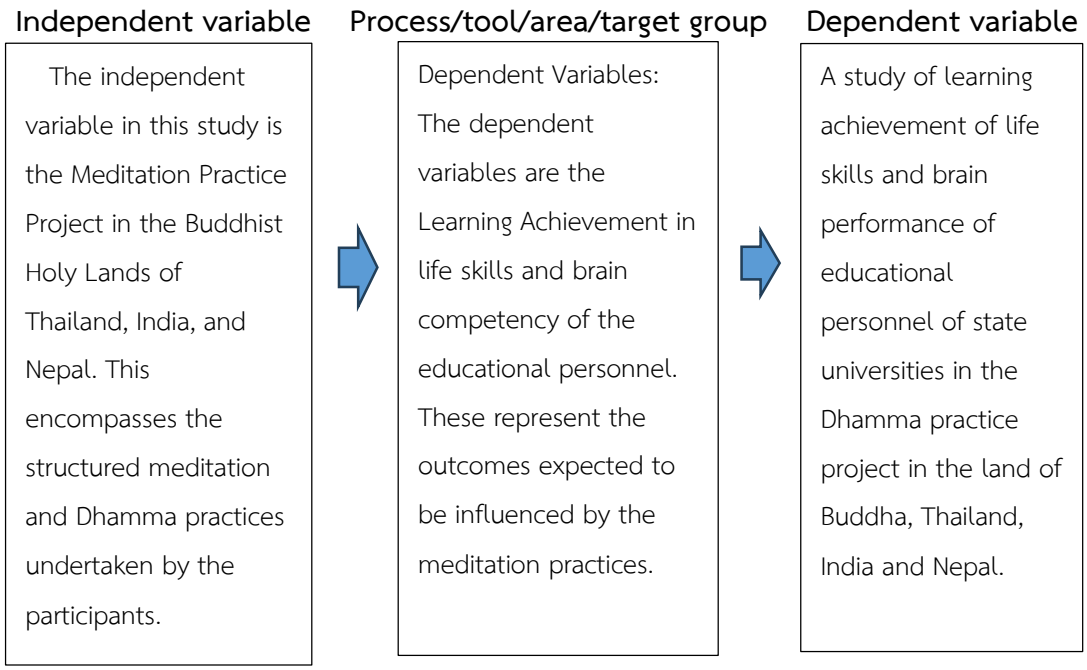


Figure 2: Conceptual framework of the research

Research Methodology

This study employs a mixed methods approach, integrating both quantitative and qualitative research methodologies for comprehensive data collection and analysis.

Research Area and Participants

The research was conducted within the spiritual contexts of Buddhist Sacred Lands across three countries, serving as the setting for the meditation practice project:

Thailand: Wat Thai Buddhagaya, Suwannaphum Buddhayani Temple

India: Varanasi, Kushinagar, Rajgir-Nalanda

Nepal: Lumbini

The target population for this study comprised educational personnel from public universities in Thailand. According to data from the Ministry of Higher Education, Science, Research, and Innovation of Thailand, this population totals 69,443 individuals (Ministry of Higher Education, Science, Research, and Innovation [MHESI], 2024).

A purposive sample of 120 educational personnel, who actively participated in the meditation program, was selected from the university database. This sampling method was chosen to ensure that participants had direct experience with the intervention, allowing for an in-depth examination of its effects.



Figure 3: Focus Group Discussion

Data Collection Duration and Tools

Data collection for this study was conducted from December 25, 2024, to January 3, 2025, using a combination of questionnaires, semi-structured interviews, and focus group discussions.

Questionnaire: A comprehensive questionnaire was developed to assess participants' life skills and cognitive competency. The design of the questionnaire was grounded in two key theoretical frameworks: 1) Life Skills Development Theory (World Health Organization - WHO): Focusing on core life skills such as decision-making, stress management, and general adaptability, and 2) Cognitive Competence Theory: Addressing cognitive skills, including problem-solving and critical thinking.

The quality of the questionnaire was verified using the Index of Item Objective Congruence (IOC) to ensure alignment between survey questions and specific theoretical definitions. The reliability of the questionnaire was further rigorously tested using Cronbach's Alpha coefficient (Cronbach, 1990), which yielded a value of 0.85, indicating good internal consistency and reliability.

Semi-structured Interview: Semi-structured interviews were conducted to gain deeper insights into the participants' experiences and perceptions regarding the meditation program. The interview questions were formulated based on: 1) Behavioral Change Theory: To explore mental and behavioral transformations experienced by participants, and 2) Organizational Development Theory: To assess changes in organizational and personal development aspects. The reliability of the interview tool was established through Inter-rater Reliability, achieving a value of 0.90, signifying high consistency among evaluators.

Focus Group Discussion (FGD): Focus group discussions were facilitated to gather rich, in-depth qualitative data from participants. Discussions were structured around the development of life skills and cognitive competence as a direct result of the meditation practice. The FGD guide was designed referencing.

Experiential Learning Theory (Kolb): To explore how participants adapted to and perceived behavioral changes in their daily lives after the program. Key discussion topics included adaptation strategies, enhanced self-awareness, and the practical application of new behaviors in personal and professional contexts.

Data Analysis and Statistics

Data analysis proceeded in two phases corresponding to the mixed-methods approach:

Quantitative Data Analysis were analyzed using both descriptive statistics and inferential statistical tests. Descriptive statistics included measures such as frequency distribution, percentage, arithmetic mean, and standard deviation. Inferential statistical tests included paired t-tests to examine significant changes in life skills and cognitive competence before and after participation in the meditation program, and Pearson's Product Moment Coefficient to analyze correlations between variables. Additionally, Multiple Regression Analysis (Enter Method) was applied for testing the hypotheses and evaluating the predictive relationships between multiple variables.

Qualitative Data Analysis derived from interviews and focus group discussions. Thematic analysis was employed to identify key themes and insights regarding participants' experiences and perceptions. Furthermore, documentary research principles were utilized for systematically analyzing, synthesizing, and presenting the qualitative data through a descriptive narrative, providing a deeper understanding of the processes and impacts of meditation on the development of life skills and cognitive competence.

The integration of both quantitative and qualitative methodologies in this study provides a robust and comprehensive understanding of the transformative impact of Buddhist meditation on the life skills and cognitive competence of educational personnel.

Ethical Considerations

Prior to data collection, ethical approval for this study was obtained from All participants were fully informed about the study's purpose, procedures, and their right to withdraw at any time. Written informed consent was obtained from all participants. Confidentiality and anonymity of participants' data were strictly maintained throughout the research process.

Findings

The study on the effectiveness of life skills learning among educational staff at public universities participating in the meditation program in sacred Buddhist sites shows that life skills in all areas were learned at a "high" level. The average scores and standard deviations are as follows:

Table 1: Mean, Standard Deviation, and Levels of Life Skills Learning among Educational Staff at Public Universities Participating in the Meditation Program in Sacred Buddhist Sites

No.	Life Skill Learning	$\bar{x}$	SD	Level
1	Morality and Ethics in Daily Life	3.98	0.51	High
2	Stress Management Skills	3.95	0.96	High
3	Interpersonal Relationships	3.81	0.75	High
4	Adaptation to Change	3.88	0.66	High
5	Self-Awareness	3.93	0.86	High
	Total	**3.91**	**0.45**	**High**

From Table 1, the overall mean score for life skills learning among the educational staff is 3.91 (SD = 0.45), consistently falling under the "High" level. This finding positively indicates the impact of the meditation program in sacred Buddhist sites on the development of life skills across all studied areas. Specifically, participants demonstrated notable proficiency in morality and ethics in daily life (mean = 3.98) and stress management skills (mean = 3.95).

Table 2: Mean, Standard Deviation, and Levels of Cognitive Competence of Educational Staff After Participating in the Meditation Program in Sacred Buddhist Sites

No.	Cognitive Competence	$\bar{x}$	SD	Level
1	Creativity and Innovation	3.93	0.78	High
2	Decision Making and Problem Solving	3.89	0.88	High
3	Memory and Information Management	3.75	0.63	High

No.	Cognitive Competence	$\bar{x}$	SD	Level
4	Emotional Intelligence	3.82	0.62	High
5	Concentration Ability	3.91	0.71	High
	Total	**3.86**	**0.73**	**High**

From Table 2, the overall mean score of cognitive competence among the educational staff after participating in the meditation program is 3.86 (SD = 0.73), which is categorized as "High." This finding indicates that participation in the program has had a positive impact on the development of cognitive competence across all studied areas. Specifically, participants demonstrated notable proficiency in creativity and innovation (mean = 3.93) and concentration ability (mean = 3.91).

Table 3: Summary of Total Scores for Effectiveness Index Calculation

Data Point	Total Score
Total Pre-Test Score	1,965
Total Post-Test Score	4,003
Number of Participants	120
Full Score (maximum possible)	40

From this analysis, the effectiveness index of life skills learning outcomes is 0.7188. This indicates that the life skills learning program for educational staff from public universities who participated in the meditation program resulted in an increase in knowledge or learning by 71.88%

Table 4: Comparison of Pre- and Post-Test Learning Outcomes for Life Skills of Educational Staff from Public Universities Participating in the Meditation Program in Sacred Buddhist Sites

Test	n	Mean ($\bar{x}$)	Standard Deviation (S.D.)	t-test
Pre-Test	120	35.73	1.69	53.22
Post-Test	120	72.78	1.71	-

From Table 4, a paired-samples t-test was conducted to compare the life skills learning outcomes before and after participation in the meditation program. The mean scores for life skills before the program were 35.73 (S.D. = 1.69), while after participating in the program, the mean score significantly increased to 72.78 (S.D. = 1.71). The t-test value of 53.22 ($p < 0.05$) indicates that the post-test scores were statistically significantly higher than the pre-test scores at the 0.05 significance level. This finding strongly suggests that the meditation program had a statistically significant positive impact on the life skills learning outcomes of the educational staff who participated in the program.

Table 5: Analysis of the Relationship Between Life Skills Learning and Cognitive Competence of Educational Staff from Public Universities in the Meditation Program at Sacred Buddhist Sites in Thailand, India, and Nepal

Life Skills Learning (X)	**Cognitive Competence (Y)**
X1: Self-awareness	Y1: Creativity and Innovation
X1 Self-awareness	1.00
X2: Stress Management	0.39
X3: Interpersonal Relationships	0.36
X4: Adaptability	0.31
X5: Self-awareness	0.39
Overall (X)	**0.529**

From Table 5, it is evident that life skills learning has a positive correlation with cognitive competence across all sub-variables and the overall score. This supports the finding that participation in the meditation program significantly enhances both life skills and cognitive competence among the educational staff, particularly in their ability to adapt to change and develop greater self-awareness.

Table 6: Standardized Regression Coefficients Analysis of the Relationship Between Life Skills Learning and Cognitive Competence of Educational Staff in the Meditation Program at Sacred Buddhist Sites in Thailand, India, and Nepal

Variable	b	β	SE_b	t	P-value
(Constant)	1.317		0.181	8.250	.000
Virtue and Ethics in Daily Life	0.176	0.165	0.037	3.763**	.000
Stress Management Skills	0.081	0.153	0.044	1.581	.092
Interpersonal Relationships	0.118	0.304	0.063	3.009**	.002
Adaptability to Change	0.246	0.779	0.041	4.000**	.000
Self-awareness	0.189	0.534	0.048	3.011**	.001
R	.685				
SE_est	.328				
F	118.44				
R^2	.506				

The analysis from the Multiple Regression model demonstrates that Adaptability to Change, Self-awareness, Interpersonal Relationships, and Virtue and Ethics in daily life are key factors that significantly contribute to the development of cognitive competence among educational staff in the meditation program. Stress management, however, does not have a significant impact. The overall model explains 50.6% of the variance in cognitive competence ($R2=0.506$), with a strong model fit ($F=118.44$, $p<0.01$).

Discussion

The findings of this study provide valuable insights into the impact of the meditation program in sacred Buddhist sites on the life skills learning and cognitive competence of educational staff from public universities. These results are discussed in relation to each research objective as follows:

Objective 1: Life Skills Learning Achievement

The findings indicate that the life skills learning achievements of educational personnel participating in the Dharma practice project were at a "high" level across all areas (as detailed in Table 1). More significantly, the comparative analysis revealed a statistically significant increase in life skills from pre-program to post-program (t-test value of 53.22, $p < 0.05$, as shown in Table 4). This substantial improvement is further supported by the Effectiveness Index of 0.7188, signifying that the program led to a remarkable 71.88% increase in life skills learning outcomes. This result strongly suggests that participation in the Dharma practice project had a profound positive impact on the development of life skills. This aligns with previous research and theories, such as Xue and Worapongpat (2022), which highlight the benefits of spiritual practices and personal development in enhancing various life skills, including self-awareness, stress management, interpersonal relationships, adaptability, and morality and ethics.

Objective 2: Cognitive Competence Development

Cognitive competence development in all studied areas was at a "high" level following participation in the program (as presented in Table 2). The consistently high mean scores for cognitive competence across aspects such as creativity and innovation, decision-making, memory, emotional intelligence, and concentration ability, suggest that the project had a beneficial effect on cognitive competence development. This result supports existing studies and theories, such as Worapongpat (2022), which emphasize the role of spiritual practices and immersive learning environments in enhancing various cognitive capabilities and overall brain performance.

Objective 3: Relationship between Life Skills Learning and Cognitive Competence

The study found a significant positive correlation between life skills learning and cognitive competence. The overall correlation coefficient of $r = 0.743$ ($p < .01$) indicates a strong statistically significant relationship. Furthermore, the detailed correlation analysis showed particular strengths, such as Adaptability to Change (X4) having the highest correlation with Overall Cognitive Competence (Y) at $r = 0.857$ ($p < .01$), and Self-awareness (X5) correlating positively with Creativity and Innovation (Y1) at $r = 0.604$ ($p < .01$). The findings from this study highlight the positive effects of the Dharma practice project on both life skills learning and cognitive competence of educational personnel. The development of adaptability to change and self-awareness proved

to be particularly impactful in improving cognitive competence. However, further research is recommended to explore other factors, such as stress management, and their potential effects in different contexts.

New knowledge from research

New knowledge from research can be summarized into a diagram as follow:

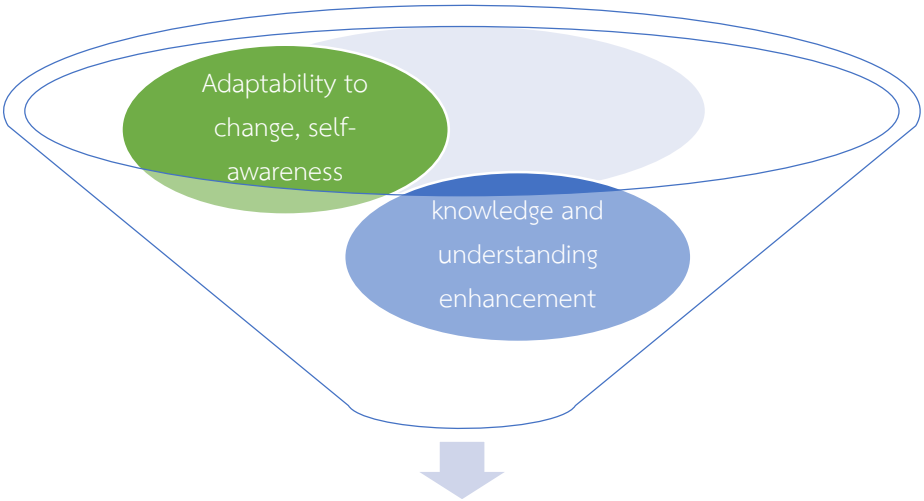


Figure 4: Model of the relationship between learning life skills and intellectual competence

From Figure 4, it can be seen that the meditation practice project in the Buddhist Holy Land can effectively promote the systematic development of life skills and intellectual competence among educational personnel. Mindfulness and meditation are the core of this process, which are the main mechanisms that drive all dimensions of self-development. This model illustrates that the integration of learning life skills, especially adaptability to change and self-awareness, significantly contributes to the enhancement of intellectual competence, thus promoting the overall professional and personal growth of the participants.

Recommendations

Based on the findings of this research, the following recommendations are proposed for future practice and further study:

1. Promotion of Continuous Mindfulness and Meditation Practice in Educational Institutions

Educational institutions should actively promote and integrate the continuous practice of mindfulness and meditation through various structured activities. This initiative is crucial for fostering the holistic development of life skills and brain competencies in educational personnel, with a particular emphasis on enhancing adaptability to change and self-awareness, which were identified as key areas of impact.

2.Development of Life Skills Curriculum and Learning Activities

A comprehensive curriculum focused on life skills should be developed and implemented in diverse and systematic formats. This curriculum should be tailored to meet the evolving needs of educational personnel development, effectively addressing both their academic and spiritual competencies, thereby promoting well-rounded growth.

3. Analysis and Development of Brain Competency Measurement Tools

It is recommended that existing tools for measuring brain competencies among educational personnel be critically analyzed, and new, more comprehensive instruments be developed. Such tools should aim to cover all relevant dimensions of cognitive competence, ensuring accurate, reliable, and useful assessments for guiding future development programs and evaluating their effectiveness.

4. Further Study and Research on Stress Management Skills

This research found no statistically significant effect of stress management skills on cognitive competence, further in-depth studies are highly recommended. These studies should aim to identify specific factors or alternative approaches that can effectively enhance stress management skills and thoroughly investigate their potential impact on cognitive competence across various contexts and populations.

5. Expanding the Project to Other Educational Personnel Groups

The successful implementation and positive outcomes of this meditation program suggest its potential applicability to a broader audience. Therefore, it is recommended that the project be expanded to include other groups of educational personnel, such as teachers, students, and administrative staff across the entire education system, to ensure holistic and sustainable development across the educational sector.

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