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RESEARCH ARTICLE

Implementation the Training Course Based on Situated Cognition Theory to Enhance the Career Planning Competency of Pre-School Education Students

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ABSTRACT

With the rapid development of entrepreneurship education, the training course was implemented in several majors. This research on basis of Pre-School Education studied at 1) to develop of training course to enhance the career planning competency of students, and 2) to compare the performance of career planning competency through before and after the implementation the training course in the group of who as junior students with mixed quality (strong, medium, and weak). Through the training course content based on Situated Cognition Theory, the study took the result of analysis about the performance of career planning competency by career planning competency test. According to the performance test, there were at higher and better level than before used the training course based on Situated Cognition Theory and could guide the institutions with Pre-School Education to develop the career planning competency of students. And the training course which provided evaluation ranking was also adaptability and feasibility for Pre-School Education.

INTRODUCTION

In today's rapidly evolving job market, the gap between student aspirations and market demands poses a significant challenge to career planning. As higher education institutions continue to produce graduates, many students struggle to align their academic achievements with the skills and experiences that employers require. This misalignment often results in underemployment or dissatisfaction with career outcomes, as traditional educational approaches tend to emphasize theoretical knowledge over practical skills (Savickas, 2013; Better Learning Together, 2023).

To address this issue, contemporary career planning strategies advocate for integrating practical experiences such as internships, role-playing, and mentorship into educational programs. These hands-on approaches help students gain exposure to real-world scenarios, allowing them to apply classroom knowledge to practical problems and make informed career decisions (Hill Publisher, 2023). Such methods are supported by evidence showing that experiential learning significantly enhances employability and career readiness by equipping students with relevant skills and a professional network (Jacobs Foundation, 2024).

However, despite the potential benefits, many universities still fall short in providing comprehensive career guidance. Career services often focus on administrative tasks rather than offering personalized and proactive support to students. Addressing this gap requires a shift towards a more

structured approach that includes self-assessment tools, individualized career counseling, and practical skill development tailored to students' career goals (International Journal for the Advancement of Counselling, 2023). As the workforce continues to evolve, universities must adapt their career education models to better prepare students for successful transitions from academia to the professional world.

Situated Cognition Theory posits that learning occurs most effectively when students engage in authentic, context-specific tasks. It challenges traditional educational practices that often present information in a vacuum, disconnected from real-life applications. Instead, the theory suggests that learning should be situated within meaningful contexts that mirror real-world settings. For pre-school education students, this could involve activities such as role-playing as teachers, internships in early childhood settings, or scenario-based exercises that mimic classroom situations. These approaches not only enhance knowledge retention but also improve the ability to apply theoretical concepts to practical problems, a critical aspect of career planning and readiness (Hong, Yu, & Chen, 2020; Hwa, Chow, & Wang, 2019).

Recent research highlights the benefits of applying Situated Cognition Theory in educational training. Hong, Yu, and Chen (2020) found that using situated learning strategies in technological education enhanced students' problem-solving skills and career readiness by providing them with opportunities to engage in collaborative project design. Similarly, Hwa, Chow, and Wang (2019) showed that incorporating role-playing and case-based learning methods into environmental training courses significantly improved participants' decision-making abilities. These findings suggest that situated learning is not only effective for technological or environmental education but also holds promise for enhancing career planning competencies in pre-school education by providing authentic learning experiences that simulate professional roles (Hong, Yu, & Chen, 2020; Hwa, Chow, & Wang, 2019).

Integrating Situated Cognition Theory into career planning courses for pre-school education students could involve various methods, such as internships, mentoring, and scenario-based learning. For instance, internships can place students in real early childhood settings where they interact with young children, apply child development theories, and practice classroom management techniques. Mentoring allows students to learn from experienced educators, gaining insights into practical aspects of the profession while reflecting on their experiences. Scenario-based learning, which involves simulated classroom activities, helps students develop critical skills in problem-solving and adaptability, making them more prepared for actual teaching roles (Lin, 2021; Tan et al., 2013).

Moreover, incorporating reflection and articulation in these situated learning activities enhances students' ability to connect theory with practice. Reflection enables students to evaluate their experiences, recognize the relevance of their knowledge, and identify areas for improvement. Articulation, which involves explaining what they have learned and how they applied it, helps solidify understanding and supports the transfer of skills to future career situations. This dual process of reflection and articulation is crucial in situated learning, as it not only deepens students' engagement but also facilitates the practical application of career planning competencies (Gee, 1997; Lave & Wenger, 1991).

Improving career planning competencies is essential for pre-school education students who will eventually shape the foundational learning experiences of young children. However, traditional educational methods often emphasize theoretical knowledge without adequately preparing students for practical, real-world challenges. Situated Cognition Theory, introduced by Lave and Wenger (1991), emphasizes that knowledge is most effectively acquired and applied in the context where it will be used. Implementing training courses based on this theory can bridge the gap between abstract knowledge and practical skills, providing students with authentic experiences that are more closely aligned with future career tasks. This approach ensures that learning is not just theoretical but also

contextual, making it more relevant and impactful for students (Lave & Wenger, 1991; Gee, 1997). In conclusion, implementing training courses based on Situated Cognition Theory presents a promising approach to enhancing the career planning competencies of pre-school education students. By situating learning within authentic contexts that simulate professional settings, this approach bridges the gap between theory and practice, equipping students with practical skills and real-world experience. The integration of internships, mentoring, scenario-based learning, and reflective practices ensures that students not only acquire knowledge but also apply it effectively in their future careers. As research indicates, situated learning approaches have demonstrated success in various educational fields, making them a valuable addition to pre-school education training programs (Hong, Yu, & Chen, 2020; Lin, 2021).

Objectives

1. To develop a training course based on Situated Cognition Theory to enhance the career planning competency of Pre-school Education students.

2. To compare the performance of career planning competency before and after the implementation of the training course.

RESEARCH METHODOLOGY

There are 30 students from different classes majoring in Pre-School Education of Krirk University, Thailand through random cluster sampling from mixed abilities (strong, medium, and weak) which used the career planning competency test before implementation the training course based on Situated Cognition Theory. The detail evaluation ranking about mixed quality, each items score 1, 2, 3, 4, or 5.

The content about the training course based on Situated Cognition Theory is about to improve the career planning competency of Pre-School Education students, including 3 subjects, as 1) Career Development Pathway, 2) Career Adaptability, and 3) Career Decision-Making Management, that each subject components include 5 items to evaluate. And through the subjects from training course, students could be supported in some real social environment to exercise the comprehensive quality about vocation in career planning competency.

Before implementing the training course based on Situated Cognition Theory, researcher would analyze the index of Item Objective Congruence (IOC) about verified the validity of training course. The development of training course which based on Situated Cognition Theory implemented the performance test about career planning competency.

After the 30 students picked up from population experienced training course based on Situated Cognition Theory, there were mixed research data for analysis. Qualitative data were analyzed through descriptive statistics, such as age or gender. Quantitative data were analyzed through inferential statistics; Then calculate the different evaluation of performance before and after using training course based on Situated Cognition Theory were analyzed through means ($\bar{x}$), and standard deviation (SD.), and t-test for dependent sample. And at the end of the research experiment, the result would show the trend about training course development guiding for career planning competency of Pre-School Education students.

The research framework of the development of training course based on Situated Cognition Theory to enhance the career planning competency of Pre-School Education students, shown as Figure 1.

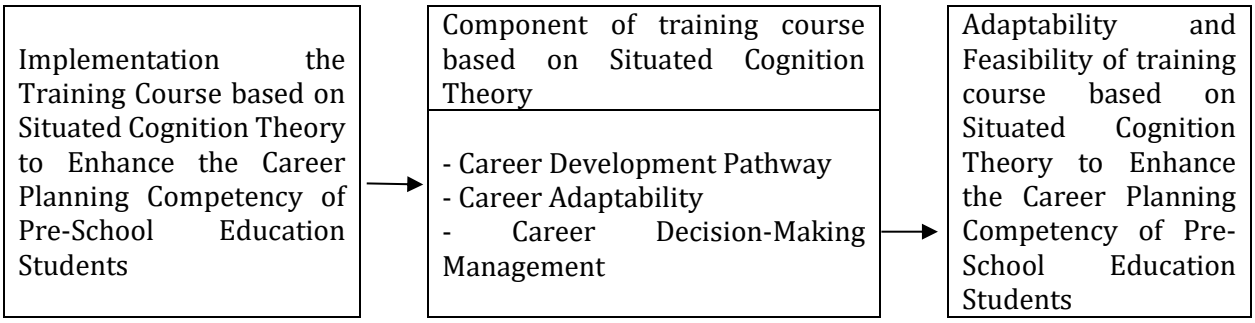

Figure 1: Conceptual Framework

RESEARCH RESULTS

The researcher collected and analyzed data from pre-test and post-test of the performance of training course focused on Situated Cognition Theory to enhance the Career Competency of Pre-education students. The data analysis included statistical measures such as mean, standard deviation, and the difference between pre-test and post-test to measure the result of training course. The findings were presented in Table 1-3, including the 3 contents from the training course.

Table 1: Training score between pre-test and post-test about Career Development Pathway

Learning Content		Pre-test		Post-test		D
		$\bar{X}$	SD.	$\bar{X}$	SD.	
Career Development Pathway	1. Goal Achievement	1.80	0.702	3.53	0.718	1.73
	2. Skills Development and Enhancement	1.67	0.699	4.00	0.730	2.33
	3. Experience and Competency Growth	1.73	0.680	3.57	0.716	1.84
	4. Planning and Execution	1.50	0.563	3.73	0.814	2.23
	5. Professional Development and Networking	1.60	0.554	3.60	0.841	2.00
	Total	8.30	1.716	18.43	1.856	10.13

Table 1 illustrates the training's impact on the Career Development Pathway, showing substantial improvements across five core areas: Goal Achievement, Skills Development and Enhancement, Experience and Competency Growth, Planning and Execution, and Professional Development and Networking. The overall mean score increased significantly from 8.30 (pre-test) to 18.43 (post-test), with a total mean difference of 10.13, indicating that the training had a considerable positive effect on participants' career development skills.

Breaking down the individual components, the largest improvement was observed in Skills Development and Enhancement, with the mean score rising by 2.33 points (from 1.67 to 4.00), suggesting that the training was particularly effective in enhancing participants' abilities. Planning and Execution also showed a notable increase of 2.23 points (from 1.50 to 3.74), reflecting improved competencies in organizing and carrying out career-related tasks. Additionally, gains in Professional Development and Networking (mean increase of 2.00) and Experience and Competency Growth (1.84) indicate that the training helped participants to better navigate professional interactions and expand their expertise.

Goal Achievement scores improved from 1.80 to 3.53, with a difference of 1.73, suggesting a significant enhancement in the participants' ability to set and achieve career objectives. The standard deviations remained relatively consistent before and after the training, indicating stable variability in

scores across participants. Overall, the data supports the conclusion that the training program was effective in improving various aspects of career development for the participants.

Table 2: Training score between pre-test and post-test about Career Adaptability

Learning Content		Pre-test		Post-test		D
		$\bar{X}$	SD.	$\bar{X}$	SD.	
Career Adaptability	1. Concern	2.00	0.683	3.77	0.920	1.77
	2. Control	1.67	0.650	3.77	0.883	2.10
	3. Curiosity	1.90	0.870	3.60	0.841	1.70
	4. Confidence	1.77	0.667	3.53	0.846	1.76
	5. Flexibility	1.40	0.554	3.63	0.836	2.23
	Total	8.74	2.081	18.30	1.370	9.56

Table 2 shows the impact of training on Career Adaptability by comparing pre-test and post-test scores across five dimensions: Concern, Control, Curiosity, Confidence, and Flexibility. The total mean score increased notably from 8.74 (pre-test) to 18.30 (post-test), with a mean difference of 9.56, indicating significant overall improvement in participants' adaptability to career-related challenges.

Among the components, Flexibility exhibited the highest increase, with a mean difference of 2.23 (rising from 1.40 to 3.63), suggesting that participants became better at adjusting to changing career circumstances. Control also saw a considerable improvement of 2.10 (from 1.67 to 3.77), reflecting enhanced self-regulation and decision-making skills. The Concern score increased by 1.77 (from 2.00 to 3.77), indicating that participants were better prepared for career planning and tasks following the training.

Other areas, including Curiosity and Confidence, showed meaningful gains, with mean differences of 1.70 and 1.76, respectively, pointing to increased interest in exploring career options and stronger self-belief in handling career-related challenges. Additionally, the standard deviations decreased from 2.081 (pre-test) to 1.370 (post-test), which implies a reduction in variability among participants' scores, suggesting that the training helped standardize their career adaptability skills.

Overall, the results indicate that the training program effectively enhanced all measured aspects of Career Adaptability, especially in fostering greater flexibility, control, and readiness for career development. The improvements across each component underscore the program's ability to prepare participants for real-world career challenges.

Table 3: Training score between pre-test and post-test about Career Decision-Making Management

Learning Content		Pre-test		Post-test		D
		$\bar{X}$	SD.	$\bar{X}$	SD.	
Career Decision-Making Management	1. Self-Awareness and Evaluation	1.73	0.727	3.43	0.496	1.70
	2. Information Gathering and Analysis	1.77	0.883	3.67	0.699	1.90
	3. Goal Setting and Clarification	1.67	0.745	3.70	0.690	2.03
	4. Evaluating Options and Weighing Pros and Cons	1.70	0.690	3.67	0.650	1.97
	5. Decision Implementation and Adjustment	1.560	0.619	3.73	0.892	2.17
	Total	8.37	1.816	18.20	0.872	9.83

Table 3 presents the impact of training on Career Decision-Making Management by comparing pre-test and post-test scores across five components: Self-Awareness and Evaluation, Information Gathering and Analysis, Goal Setting and Clarification, Evaluating Options and Weighing Pros and Cons, and Decision Implementation and Adjustment. The total mean score increased significantly from 8.37 (pre-test) to 18.20 (post-test), resulting in a total difference of 9.83, indicating substantial overall improvement in decision-making skills.

The greatest increase was observed in Decision Implementation and Adjustment, with a mean difference of 2.17, rising from 1.56 to 3.73. This suggests that participants significantly improved their ability to make and adapt decisions as needed. Goal Setting and Clarification followed closely, with a gain of 2.03 (from 1.67 to 3.70), indicating that the training effectively enhanced participants' skills in setting and clarifying career goals. Similarly, Evaluating Options and Weighing Pros and Cons saw a significant improvement of 1.97, reflecting better decision-making strategies after the training.

Other components, such as Information Gathering and Analysis and Self-Awareness and Evaluation, also showed meaningful gains, with increases of 1.90 and 1.70, respectively. These improvements suggest that participants became more adept at researching career information and reflecting on their career choices. Additionally, the standard deviations decreased substantially from 1.816 (pre-test) to 0.872 (post-test), indicating a reduction in variability and suggesting that the training contributed to more consistent career decision-making competencies across participants.

Overall, the results indicate that the training program was highly effective in enhancing all measured areas of Career Decision-Making Management, with notable improvements in the ability to set goals, evaluate options, and implement decisions. The data suggests that participants not only improved individually but also experienced more uniform skill development, as evidenced by the reduced variability in post-test scores.

And after the findings of the measure from 3 training course content, the researcher collected and analyzed data from pre-test and post-test of total scores. The data analysis included statistical measures such as mean, standard deviation, and a dependent t-test for correlated samples to assess the effectiveness of the training course in improving the Career Planning Competency. The results were presented in Table 4.

Table 4: Comparison of training course based on Situated Cognition Theory to Enhance the Career Planning Competency by pre-test and post-test with training course

Training content		n	Full Point	$\bar{X}$	SD.	t	p
Total score	Pre-test	30	75	25.41	3.756	9.98**	.00
	Post-test	30	75	54.93	2.288		

**Statistically significant at level .01 (p <.01)

Table 4 compares the results of a training course based on Situated Cognition Theory, evaluating career planning competency through pre-test and post-test scores. The analysis includes 30 participants, with a maximum possible score of 75. The mean score improved significantly from 25.41 (SD. = 3.756) in the pre-test to 54.93 (SD. = 2.288) in the post-test, indicating a substantial increase in career planning competency following the training.

The statistical analysis shows a t-value of 9.98, with a p-value of .00, indicating that the difference is statistically significant at the 0.01 level ($p < 0.01$). This result confirms that the training course had a meaningful impact on enhancing the career planning skills of the participants, suggesting that incorporating Situated Cognition Theory can effectively improve competencies in career development contexts.

CONCLUSION AND DISCUSSION

Conclusion

According to the research topic, the study which indicated that the training course based on Situated Cognition Theory significantly enhanced the career planning competency of pre-school education students across various aspects is summarized as follows:

1) Training course to enhance the career planning competency of Pre-school education students which consisted of 1) Career Development Pathway, 2) Career Adaptability, and 3) Career Decision-Making Management were at higher and better level. Participants showed marked improvements in areas such as goal achievement, skills development, experience growth, and professional networking. The overall mean increased by 10.13 points, indicating a well-rounded enhancement in career preparedness. Gains were particularly noticeable in flexibility, control, and concern, with an overall increase of 9.56 points. These improvements suggest that the training fostered the participants' ability to adapt to changing career circumstances and take proactive steps in their career development. This category saw the highest increase in mean scores (9.83 points), reflecting significant enhancements in decision-making processes, including goal setting, evaluating options, and implementing decisions. The decrease in standard deviation across the post-tests for all measured areas suggests that the training not only elevated individual competencies but also helped standardize these skills among participants.

2) The comparison of total scores shows a substantial increase from 25.41 (pre-test) to 54.93 (post-test), with a t-value of 9.98 and p-value < 0.01, confirming the statistical significance of these improvements. This demonstrates the comprehensive effectiveness of the training in enhancing career planning competency.

Discussion

Research on the development of training courses to enhance the career planning competency of Pre-school education students was conducted in the first semester of the 2024 academic year. It involved the study of training course about career planning competency for 30 Pre-school education students in Krirk University, Thailand which using the Situated Cognition Theory. The research could be discussed as follows.

The findings from the analysis of the four tables align with existing literature on the effectiveness of Situated Cognition Theory in enhancing practical competencies. Situated Cognition Theory posits that learning is most effective when it occurs within the same context in which the knowledge will be applied (Lave & Wenger, 1991). The significant improvements across all measured areas suggest that situating the training within realistic career planning tasks enabled participants to transfer theoretical knowledge into practical skills effectively.

Comparing these results with other studies, similar findings were reported by Hong, Yu, and Chen (2020), who found that situated learning strategies significantly improved problem-solving skills and career readiness in a technological education context. The increased scores in Career Decision-Making Management and Career Adaptability reflect these results, suggesting that when learners engage in realistic and context-specific tasks, they are better prepared to handle career-related challenges. Moreover, Hwa, Chow, and Wang (2019) demonstrated that integrating role-playing and scenario-based learning into training courses enhanced participants' decision-making abilities. The present study’s improvements in areas such as Goal Setting and Clarification, and Decision Implementation and Adjustment support this claim, indicating that situated learning provides effective tools for developing these competencies.

The findings also resonate with Lin (2021), who found that scenario-based training methods rooted in Situated Cognition Theory led to better application of theoretical knowledge to practical problems

in educational settings. The significant gains in career competencies, such as evaluating options and weighing pros and cons, suggest that engaging participants in real-life decision-making scenarios can enhance their ability to apply knowledge in real-world contexts. This is consistent with the observed decrease in score variability (standard deviations), which implies that the training helped to standardize decision-making skills among participants, similar to Lin's findings.

Furthermore, Tan, Calabrese-Barton, Kang, and O'Neil (2013) highlighted that career-related training based on situated learning principles can foster the development of career identities by immersing students in authentic learning environments. The substantial improvements in career adaptability components such as flexibility and control align with this view, suggesting that the training helped participants to better negotiate their career roles and adapt to changing circumstances.

In summary, the present findings are consistent with existing literature that supports the effectiveness of Situated Cognition Theory in enhancing practical competencies, especially in areas that require the transfer of knowledge to real-world settings. The results add to the growing body of evidence that situated learning strategies can significantly improve career planning skills, particularly when the training involves realistic, context-specific tasks.

RECOMMENDATION

To further enhance the application of Situated Cognition Theory for career planning competency:

Building on the work of Hong et al. (2020), incorporating diverse and complex real-life scenarios can strengthen participants' ability to transfer skills to various career-related challenges. Following Hwa et al. (2019), creating individualized training paths based on participants' initial competencies could further optimize learning outcomes by addressing specific skill gaps. In line with Lin (2021), conducting follow-up studies to track the long-term retention and application of competencies would provide deeper insights into the sustained impact of the training.

These recommendations aim to enhance the effectiveness and sustainability of the training program by making it more adaptable, personalized, and comprehensive.

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