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Teachers' Self-Development for Enhancing the Coaching Skills Leading to Action in the Classroom

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Abstract

The research aimed to develop a groundbreaking educational innovation by creating an online self-training program specifically designed for teachers. This program aims to significantly enhance their coaching skills, empowering them to apply this newfound knowledge within their classrooms effectively. Structured around two primary initiatives, the program first emphasizes teacher self-development. It offers a comprehensive learning experience through seven meticulously crafted modules, each designed to equip educators with crucial coaching competencies. The second initiative focuses on translating these skills into practical applications with students, fostering an interactive and engaging learning environment. The research employed a 5-step Research and Development (R&D) methodology to ensure a robust framework. This rigorous process culminated in an experimental design featuring a one-group pretest-posttest model implemented within a school setting. The experimental group consisted of nine dedicated teachers and 113 enthusiastic students, providing a varied landscape for testing the program's effectiveness. The findings were promising, revealing that the developed educational innovation, titled "Online Self-Training Program for Promoting the Self-Development of Teachers to Refine the Coaching Skills that Enhance Taking Action in the Classroom," successfully fulfilled the established criteria for effectiveness. This positive outcome indicates that the program is well-conceived and ready for broader dissemination in targeted schools, potentially transforming teaching practices and improving student outcomes.

Keywords: self-development of teachers, refine the coaching skills, taking action in the classroom

1. Introduction

Thailand's 20-Year National Strategy (2018-2037) prioritizes reforming the learning process to meet 21st-century demands. The aim is to ensure learners acquire essential skills while fostering a lifelong passion for knowledge. This strategy promotes the development of new learning systems and redefines the role of teachers, shifting from a traditional teaching model to that of "coaches" or "learning facilitators." In this evolved role, teachers are tasked with stimulating, incentivizing, and guiding students in their educational journey and knowledge management. They are also expected to create practical learning activities and innovations, functioning as researchers to boost student achievement (Office of the National Economic and Social Development Council, 2018).

In parallel, the Office of the Basic Education Commission has introduced a quick-win policy to establish a guidance and coaching system. This initiative ensures that all teachers can effectively support and coach their students (Office of the Basic Education Commission, 2023). Coaching is essential for nurturing self-directed learning among students, enabling them to adopt a growth mindset, develop advanced thinking skills, cultivate self-confidence, and embrace continuous improvement.

Furthermore, this coaching approach promotes an environment where knowledge exchange between teachers and students is flourishing, which is vital in today's digital age (Wongdaeng, 2024). Frater (2021) also highlights the profound influence of coaching on education, describing it as a critical element in reengineering educational systems. Coaching enables dialogue and fosters positive, solution-oriented conversations, making establishing a coaching culture within educational settings immensely beneficial.

A comprehensive survey of perspectives from academics and educational organizations explored several pertinent questions regarding "coaching skills": What constitutes practical coaching skills? Why are these skills

indispensable? What traits characterize individuals with strong coaching capabilities? What best practices should be followed for skill development? What sequential steps are involved? What potential barriers could impede this growth? Additionally, how can we evaluate the success of these developmental efforts?

Much of this information is sourced from various global articles that provide dependable knowledge for research. The intention is to weave this content into learning modules for an online self-training program aimed at helping teachers understand coaching skills from diverse viewpoints before applying these insights practically in their classrooms. This method aligns with the modern belief that "Knowledge and Action are Power," moving away from the outdated notion that "Knowledge is Power."

1.1 Research Objective

This research sought to develop an educational innovation by implementing an online self-training program tailored for educators. The program is designed to enhance teachers' comprehension of coaching skills across various dimensions before their application within the classroom. Utilizing a Research and Development (R&D) methodology, the study successfully created the online self-training program, which comprises two distinct projects: 1) The Self-Development of Teachers Project, wherein educators engage with seven comprehensive learning modules focused on coaching skills, and 2) The Implementation Project, in which teachers apply the skills they have acquired in practical scenarios with their students.

1.2 Research Hypothesis

This research employed the Research and Development (R&D) methodology to create educational innovations based on "Knowledge and Action are Power." It involved gathering insights from trusted articles to design learning modules that help teachers enhance their skills for classroom application. The iterative process followed the R1D1 to RiDi framework. Previous studies have shown the effectiveness of similar methodologies, such as: 1) "Empowering Teachers' Learning to Strengthen Students' Teamwork Skills" (Kratumnok & Phrakhrusutheejariyawattana, 2024), 2) "Empowering Teachers' Learning to Foster Innovative Work Behaviors in Students" (Phochaito et al., 2024), and 3) "Empowering Teachers' Learning to Develop Students' Design Thinking Skills" (Srikongpan et al., 2024).

It is hypothesized that the research will result in practical educational innovations, specifically: 1) Teachers in the experimental group will meet the 90/90 standard criteria in post-test scores compared to their pre-test scores after the "Self-Development of Teachers Project." 2) Teachers will show significantly improved student evaluation scores following the "Project for Teachers to Apply Learning Outcomes with Students."

1.3 Literature Review

As noted earlier, our research gathered diverse viewpoints from knowledgeable individuals worldwide. As presented in various articles, these perspectives offer qualitative insights from trustworthy authors and organizations. The content reflects modern knowledge relevant to the 21st century, addressing our needs and being integrated into the learning modules of an online self-training program. This program aims to help teachers enhance their understanding of coaching skills across different dimensions before implementing this knowledge in their classrooms. Unlike scientific knowledge that relies on quantitative research seeking variables that may not align with our goals, this study emphasized qualitative insights.

In our exploration of coaching skills, we examined the perspectives of esteemed intellectuals globally, focusing on several key topics:

1) Definitions of Coaching Skills: Insights from Blackburn (2022), CoachHub (2021), Olubiyi (2019), Team Leverage Edu (2021), and Yadav (2021).
2) The Importance of Coaching Skills: Views from Barton (2019), Duggan (n.d.), Frater (2021), The Educator (2015), and University of Exeter (2018).
3) Categories of Coaching: Perspectives offered by Alegre (2021), Heinl (2022), The Indeed Editorial Team (2021), The Peak Performance Center (n.d.), and Zentis (2016).
4) Characteristics of Practical Coaching Skills: Insights from Bhasin (2021), The Indeed Editorial Team (2021), Sandwijk (2019), Schuy (2018), Sword (2022), and The Peak Performance Center (n.d.).
5) Development Guidelines for Coaching Skills: Perspectives gathered from Burton (2022), Career Insights (2022), Cotter (2021), The Indeed Editorial Team (2022), Li Editorial Team (2019), Map Consulting (2021), and Wolf (n.d.).
6) Stages of Coaching Skills Development: Insights from Amatullah (2021), Gysling (2021), and SOCO (n.d.).

7) Evaluation of Coaching Skills: Perspectives from the National Community Media Alliance (NCMA) (n.d.), Studylib (n.d.), and Template.Net (n.d.).

The literature review indicates that presenting content on the definition, importance, categories, characteristics, development guidelines, development stages, and evaluation of coaching skills, coupled with online self-training for teachers, leads to a comprehensive understanding. This process equips teachers with the essential knowledge to apply these concepts effectively with their students.

The "development guidelines" are crucial as they explore the "principles, concepts, techniques, methods, and activities" that help teachers enhance their coaching skills. Some approaches will be familiar, while others may offer new insights. We have synthesized 34 guidelines based on expert perspectives, ensuring that teachers are well-equipped to develop their coaching abilities effectively as follows:

1) Create a safe environment

2) Set an informal routine

3) Align interests with goals

4) Practice active listening

5) Ask HOW and WHAT questions

6) Appreciate good work

7) Prepare for constructive feedback

8) Be open to feedback

9) Foster a coaching mindset

10) Maximize potential

11) Challenge to achieve higher goals

12) Embrace a growth mindset

13) Find a coach

14) Adopt a coaching model

15) Keep learning

16) Set clear expectations

17) Develop coaching session templates

18) Use reframing techniques

19) Get Certified

20) Build rapport

21) Create action plans

22) Apply motivational interviewing

23) Focus on solutions

24) Attend workshops

25) Define strengths and goals

26) Seek mentorship

27) Build confidence

28) Create intentional modules

29) Improve question-asking skills

30) Strive for consistency

31) Craft each module with clear objectives

32) Measure goal achievement

33) Be patient

34) Take a class

2. Research Methods

2.1 Research Concept and Procedure

This research used the Research and Development (R&D) Methodology to create online self-training programs to enhance teachers' "Knowledge." The hypothesis posits that this knowledge will translate into "Action," creating "Power," aligning with the idea that "Knowledge and Action are Power." Sanrattana (2023) emphasizes integrating contemporary knowledge from trusted sources into Learning Modules to facilitate teacher development.

The research adhered to *the R1D1* … RiDi format, featuring a comprehensive literature review on coaching skills that encompasses six key areas: 1) Definition, 2) Importance, 3) Types, 4) Characteristics, 5) Development Guidelines, and 6) Evaluation Guidelines. Each topic was meticulously analyzed through credible sources and synthesized into a seven-module Online Self-Training Program. This program aims to assist teachers in enhancing their coaching skills and encourages them to effectively implement this knowledge within their classrooms. This approach reinforces the principle that "Knowledge and Action are Power."

Furthermore, the research necessitates the collection of information that articulates a viewpoint or opinion in the form of an article written by a credible individual or academic institution. It is crucial that the article meets specific criteria and emphasizes diversity, drawing from the sources we have explored online. All sources will undergo a thorough review by us, our classmates, and advisors, including members of the research outline examination committee.

R2D2 Steps: Prepared a comprehensive online self-training program consisting of two main projects: 1. Teacher Self-Development Project: This project focused on coaching skills and included seven modules aligned with the topics outlined in the R1D1 step. 2. Teacher Application of Learning Results with Students: This project included the following components: 1) instructions, 2) summary of the expected characteristics of coaching skills, 3) summary of coaching skills development guidelines, 4) summary of coaching skills development process, 5) assessment of students' perception of teachers' coaching practices, 6) self-assessment form for teachers to determine the appropriate coaching skills development approach for practice, 7) self-assessment form for teachers to select the coaching skills development process for practice, and 8) Reflection form for teachers to evaluate their performance. See the complete Thai program at http://www.mbuisc.ac.th/phd/Module9/Preedawan.pdf.

R3D3 Steps: Examined the content of the online self-training program based on the elements outlined in the R2D2 steps for improvement. Conducted Focus Group Discussions in two phases with school teachers not involved in the experimental research. The first phase, "Preliminary Field Testing and Revision," involved five teachers. The second phase, "Main Field Testing and Revision," involved ten teachers.

R4D4 Steps: Created two sets of tools for experimental research: 1. Teacher Learning Outcome Test. 2. Achievement Assessment. (For more details, see the Research Tools section.)

R5D5 Steps: Tested the effectiveness of the online self-training program using experimental research with a One-Group Pretest-Posttest Design in schools randomly selected as research sites. The experimental group consisted of nine teachers and a corresponding number of 26 students in the 2nd semester of the 2024 academic year. The research was conducted in two phases: 1. Experimental research on the Teacher Self-Development Project for coaching skills, lasting one month. 2. Two months of Experimental research on applying learning outcomes with students.

2.2 Research Tools

The Teacher Learning Outcome Test consisted of four multiple-choice questions designed to assess teachers' learning outcomes at two stages: before and after the experiment. Developed by the Cognitive Domain based on Bloom's Revised Taxonomy (Krathwohl, 2002), the test evaluates skills related to remembering, understanding, applying, analyzing, evaluating, and creating.

The quality of the test was assessed in two distinct phases. In the First Phase, content validity was evaluated using the Index of Item-Objective Congruence (IOC) method proposed by Rovinelli and Hambleton (1977), with input from five educational experts. The data analysis indicated that all questions successfully met the measurement objectives, as the IOC values surpassed the threshold of 0.50 (Chaichanawirote & Vantum, 2017).

In the Second Phase, the overall quality of the test was evaluated through a try-out conducted with 30 teachers from a different school not involved in the experimental area. Data analysis revealed that all test items had an Index of Difficulty within the acceptable range of 0.20 to 0.80 and a discrimination index ranging from 0.20 to 1.00. The KR-20 value, which represents the reliability coefficient, was found to be 0.92, indicating high reliability

as it surpassed the threshold of 0.70. The overall difficulty level of the test was measured at 64.81.

Assessment of Teachers' Practice Success. The assessment used a 5-point rating scale: Most, Very, Medium, Little, and Least. It was developed based on a literature review of practical coaching skills, incorporating perspectives from Bhasin (2021), Indeed Editorial Team (2021), Sandwijk (2019), Schuy (2018), Sword (2022), and Quintana from The Peak Performance Center (n.d.). Additionally, the evaluation was informed by literature on coaching skills assessment from sources such as the National Community Media Alliance (NCMA) (n.d.), Studylib (n.d.), and Quintana from Template.Net (n.d.).

The quality of the Assessment Form was evaluated in two phases: First, content validity was assessed using the IOC method, with input from five educational experts. Data analysis indicated that all questions had an IOC value exceeding the threshold of 0.50, demonstrating that the questions effectively measured the intended constructs. In the second phase, the reliability or internal consistency of the assessment form was evaluated through a try-out with 30 students from a school not involved in the experimental area. The results showed that the Alpha Coefficient of Reliability for the entire assessment was 0.88. The reliability of the following components was analyzed: Coaching Style, Questioning for Understanding, Giving Feedback, Communication, Building Trust, Increasing Self-Awareness, and Providing Encouragement. All values exceeded 0.70, meeting the acceptable criterion (George & Mallery, 2003).

2.3 Data Analysis

For the standard criteria of 90/90, data were analyzed according to the definition that Yamkasikorn (2008) described. The first 90 indicates the percentage of the average score of the entire group of teachers. In contrast, the second 90 represents the percentage of teachers who pass the test based on the criteria for all objectives. The analysis involved comparing mean scores from pre- and post-tests using the dependent t-test.

3. Research Results

As previously mentioned, this research employed the R&D methodology, guided by the concept that "Knowledge and Action are Power." It focuses on applying contemporary knowledge to the 21st century by integrating various perspectives from trusted individuals or agencies into learning modules. These modules are designed primarily to facilitate teachers' learning and empower them to apply their acquired knowledge in practice with students. This approach moves beyond the traditional "Knowledge is Power" concept prevalent in the 20th century. Based on the R1D1 … RiDi framework, the research process aimed to produce practical educational innovations, as outlined in the research hypothesis. The results from the research conducted to test this hypothesis confirmed alignment with the expected outcomes.

3.1 Results of the 1st Research Hypothesis Test

After conducting experimental research under the Teacher Self-Development Project to enhance coaching skills, as detailed in the R5D5 steps, nine teachers in the experimental group evaluated their learning outcomes using the "Teacher Learning Outcome Test." This assessment measured the effectiveness of the educational innovations against the 90/90 benchmarks. The results indicated that: 1) The average score of the teachers in the experimental group after the experiment was 34.22, which represented 95.36 percent of the total 36 points, meeting the first 90 benchmarks, and 2) One hundred percent of the teachers in the experimental group successfully met all objectives of the test, thus fulfilling the final 90 benchmarks.

Furthermore, a comparison of the average scores from the pre-test and post-test of the teachers' learning outcome tests showed the following: The average pre-test score for the nine teachers in the experimental group was 25.89, with a standard deviation of 2.32. The average score from the post-experiment test was 34.22, with a standard deviation of 1.09. An analysis of the mean scores before and after the experiment, conducted using a dependent t-test, revealed that the post-test scores significantly exceeded the pre-test scores at the 0.05 level, as shown in Table 1.

Table 1. Comparison of average scores from the pre-test and post-test of teachers' learning outcomes using the dependent t-test

Testing	Sample size	Mean	Standard Deviation	t
Pre-test	9	25.89	2.32	14.43*
Post-test	9	34.22	1.09	

*Significant at ($p<0.05$).

The findings from the comparative analysis of the mean scores in Table 1 reveal significant insights regarding the effectiveness of the "Teacher Self-Development Project to Learn about Coaching Skills." The data illustrates a marked improvement in the scores from before the implementation of the project to after its completion. This enhancement suggests that the project successfully conveys the intended coaching skills and possesses the quality and effectiveness necessary for broader dissemination. Consequently, it can be confidently used within the target population, ensuring that educators can apply these skills in their professional practices for enhanced student outcomes and overall development.

3.2 Results of the 2nd Research Hypothesis Test

Following the experimental research based on the Teacher Project, the learning outcomes were implemented with students during the R5D5 steps. One hundred and thirteen students in the experimental group assessed their teacher coaching skills using the 'Assessment of Teachers' Performance' to evaluate the effectiveness of the educational innovations developed. The assessment results, including average and standard deviation values, were analyzed before and after the experiment. These results were examined overall as well as on a case-by-case basis, as presented in Table 2 below.

Table 2. Mean and standard deviation from the results of teacher coaching skills assessment before and after the experiment overall and individual

Characteristics that represent the expected coaching skills are derived from student perceptions.	Assessment Results			
	Pre-test		Post-test	
	$\bar{X}$	S.D.	$\bar{X}$	S.D.
Coaching Style	3.81	0.89	4.29	0.68
1) Demonstrate enthusiasm while coaching to meet the learner's expectations.	3.46	0.76	3.76	0.76
2) Treat all learners consistently and fairly.	3.69	1.09	4.33	0.75
3) Reinforce and encourage learners' actions when practiced correctly.	4.15	0.86	4.67	0.47
4) Recognize and understand the individual emotional needs of learners.	3.42	0.88	4.45	0.55
5) Manage your emotions in situations that may provoke anger.	4.33	0.87	4.26	0.87
Questioning for Understanding	4.41	0.67	4.36	0.67
6) Ask open-ended questions.	4.82	0.38	4.84	0.37
7) Pose detailed questions that are appropriate for the situation.	4.68	0.57	4.62	0.62
8) Ask questions that elicit clear answers.	4.14	0.80	3.98	0.79
9) Challenge and stimulate ideas to elicit opinions.	3.99	0.73	4.04	0.71
10) Use questions to test and validate learners' understanding.	4.42	0.85	4.34	0.89
Giving Feedback	4.10	0.87	4.26	0.76
11) Provide positive feedback.	4.57	0.65	4.51	0.68
12) Offer clear and specific feedback based on evidence.	4.14	0.82	4.15	0.83
13) Focus on suggestions for creative problem-solving.	3.89	0.78	3.95	0.77
14) Summarize recommendations promptly.	3.66	1.07	4.19	0.88
15) Assess the feelings and emotions of learners.	4.18	0.83	4.31	0.81
16) Listen to learners' suggestions and opinions.	4.16	1.05	4.44	0.61
Communication	4.18	0.83	4.17	0.81
17) Listen to learners' suggestions and opinions.	4.25	0.75	4.14	0.79
18) Use precise language that is concise and straightforward.	4.18	0.92	4.04	0.91
19) Employ appropriate vocabulary and language.	4.54	0.72	4.43	0.78
20) Adapt Communication as needed.	4.36	0.85	4.30	0.81
21) Clarify information accurately and clearly.	4.22	0.73	4.22	0.73
22) Motivate and inspire learners to achieve their goals.	3.55	1.04	3.87	0.85
Building Trust	3.95	0.89	4.01	0.84
23) Communicate to clarify expectations and positive intentions toward learners.	3.94	0.83	3.96	0.84
24) Build strong relationships and create a safe environment for learners, being open and providing ample information.	4.15	0.93	4.14	0.80
25) Demonstrate sound judgment by using appropriate coaching techniques and tools to support learners in achieving their goals.	4.31	0.80	4.16	0.84
26) Exhibit consistency and communicate openly and sincerely.	4.08	0.96	4.04	0.85
27) Adhere to agreements and honor promises.	3.91	0.83	3.93	0.84

28) Provide assessments without making judgments about right or wrong.	3.31	0.97	3.85	0.86
Increasing Self-Awareness	3.90	0.86	3.99	0.83
29) Help learners recognize their current performance or behavior and their desired outcomes.	3.77	0.79	3.81	0.80
30) Assist learners in recognizing and believing in their abilities.	3.39	0.91	3.74	0.82
31) Encourage learners to express their opinions and creatively improve their work.	3.99	0.83	4.05	0.84
32) Support learners in achieving their full potential.	4.04	0.95	4.06	0.84
33) Help learners evaluate their needs for desired outcomes.	4.31	0.82	4.27	0.83
Providing Encouragement	4.12	0.93	4.21	0.80
34) Promote the progress of learners.	4.09	0.91	4.19	0.81
35) Encourage learners to build confidence.	4.01	0.80	4.03	0.80
36) Be receptive to different perspectives from learners.	4.18	1.10	4.39	0.81
37) Provide positive reinforcement to help learners recognize their strengths.	4.41	0.80	4.37	0.81
38) Celebrate and appreciate learners' successes.	3.90	1.03	4.04	0.77
Total	4.07	0.85	4.18	0.77

Table 2 presents the assessment results of teachers' coaching skills to determine the effectiveness of the developed educational innovations. The overall average score from the pre-test assessment was 4.07, with a standard deviation of 0.85. In contrast, the average score from the post-test evaluation was 4.18, with a standard deviation of 0.77. A dependent t-test comparison revealed that the post-test score was statistically significantly higher than the pre-test at a significance level of 0.05. These results are detailed in Table 3.

Table 3. Comparative analysis of the average score from the assessment of teachers' coaching skills before and after the experiment, using the dependent t-test

Assessment	Sample size	Mean	Standard Deviation	t
Pre-test	113	4.07	0.85	5.26*
Post-test	113	4.18	0.77	

*Significant at ($p<0.05$).

The results from the research hypothesis test indicate that the 'Online Self-Training Program,' particularly in the area of 'Teacher Implementation of Learning Outcomes with Students,' is practical and aligns well with the hypothesized outcomes described in the research framework.

A closer examination of the findings reveals that the 'Online Self-Training Program' comprises two distinct yet complementary projects. The Teacher Self-Development Project is designed to enhance educators' learning coaching skills. This component equips teachers with the necessary strategies and tools to foster a supportive and engaging learning environment. The second project, the Teacher Project for Applying Learning Outcomes with Students, focuses on practical implementation, ensuring teachers can effectively translate their learning into actionable classroom outcomes.

Together, these projects represent a high-quality educational innovation that addresses the contemporary needs of educators in their professional development. The program is deemed suitable for broad dissemination within the target population of teachers, leveraging the principles of research and development (R&D) methodology. This methodology emphasizes the importance of systematic research and the development of educational innovations that are rigorously tested through trials in experimental settings. Such trials aim to reflect the diverse characteristics of the broader educational population, ultimately leading to more effective and scalable teaching and learning strategies.

4. Discussion

This research focused on developing an online self-training program for teachers to enhance their coaching skills before applying this knowledge in the classroom. The program comprises two key components designed to assist teachers in developing their coaching skills through seven learning modules in which teachers practice their newly acquired skills with students.

The findings indicate that the online self-training program, "Promoting the Self-Development of Teachers to Refine the Coaching Skills that Enhance Taking Action in the Classroom," qualifies as an educational innovation meeting the established research hypothesis criteria. Based on R&D methodology principles, educational

innovations tested in sample areas can be disseminated to specific target populations once they meet effectiveness criteria. In this case, the target population includes schools affiliated with the Office of the Basic Education Commission, which currently includes 6,882 schools, 133,063 teachers, and 1,794,311 students as of the 2023 academic year.

The research team believes that the success of this educational innovation, as evidenced by the research hypothesis, is due to a well-structured research process that highlights three crucial concepts: 1) the importance of digital and knowledge societies, 2) the necessity of translating knowledge into practical applications, and 3) the benefits of online learning. This framework aligns with previous studies by Promrub and Sanrattana (2022), Kromthamma and Supakicco (2023), and Kratumnok and Phrakhrusutheejariyawattana (2024), which were similarly anchored in these concepts and achieved results consistent with their research hypotheses.

In emphasizing and leveraging the advantages of digital and knowledge societies, our research team reviewed literature on various online issues and perspectives. The Internet offers faster, more cost-effective, and more convenient access to information. We found that the learning modules in this research required articles reflecting fresh, modern perspectives and global viewpoints on various topics worldwide. Such content is often limited in textbooks or research works, as most textbooks cover general topics rather than focusing specifically on areas like coaching skills development. Moreover, books that address the specific content we require are still being determined. While textbooks are typically more reliable due to their systematic authorship by field experts, we were aware of the limitations and challenges of using Internet sources, particularly regarding credibility (Basmo, n.d.). We carefully selected high-quality articles to address this, ensuring the content and the authors' qualifications were suitable. Many authors we referenced were academics, educators, school administrators, trainers, and experts in their respective fields.

In prioritizing translating knowledge into practice, our research team provided teachers in the experimental group with opportunities for self-development, enabling them to gain a deep understanding of coaching skills before applying this knowledge to their students. This approach underscores the importance of action as the key to success, as knowledge without action is of little benefit. This concept aligns with the views of several scholars. For instance, Robbins (n.d.) asserts, "Knowledge is NOT power. Knowledge is only POTENTIAL power. Action is power."

Integrating online learning into the educational landscape is transformative, particularly exemplified by the "Online Self-Training Program for Promoting the Self-Development of Teachers to Refine the Coaching Skills that Enhance Taking Action in the Classroom." This program underscores that while knowledge is powerful, its potential is realized only when actively applied. As highlighted by Hughes (2022) and echoed by Margot (2019), knowledge transforms from mere potential into actual power when organized into actionable plans directed toward specific goals.

Moreover, the metaphor presented by Ofpad, the School of Genius, aptly describes the relationship between knowledge and action. Knowledge can be likened to bullets—powerful but ineffective without the means to deploy them, while action represents the gun that can direct those bullets. Knowledge remains dormant without the initiative to act; thus, every learning effort must be accompanied by a call to action.

The online self-training program capitalizes on the benefits offered by technological advances in education. It dismantles traditional barriers of time and location, permitting educators to engage in professional development at their own pace and convenience. Enhanced access to resources, rapid communication, and the richness of diverse learning formats all contribute to a more dynamic and practical learning experience. This approach enriches teachers' coaching skills and equips them to foster a more interactive and engaging learning environment for their students. As such, the program serves as a vital step in bridging the gap between knowledge and action in the classroom, ultimately leading to improved educational outcomes.

5. Conclusion and Recommendations

The research outcomes have met the anticipated objectives, which can be disseminated to specific target populations, and the research team delineates two essential recommendations:

Addressing Potential Obstacles: The successful implementation of the educational innovation necessitates the anticipation and mitigation of challenges within the participating educational institutions. Key obstacles include: 1. Diverse Learning Behaviors and Abilities: Variations in students' learning behaviors and capabilities may impede the effective application of teaching strategies. 2. Continued Reliance on Traditional Learning Methods: Many students are accustomed to rote memorization and textbook-driven instruction, making the transition to self-directed learning a gradual and demanding process, wherein the teacher assumes a coaching role. 3.

Challenges in Ensuring Consistent Coaching: Educators frequently encounter difficulties in addressing students' knowledge gaps due to their substantial workloads and additional student activities. Strategies to Mitigate These Obstacles: 1. Establishing Strong Student Relationships: Educators should prioritize active listening to discern and address underlying concerns. Encouraging open communication is essential for enabling students to articulate their challenges. 2. Developing Relevant Learning Materials: The creation of engaging media and problem-based scenarios aligned with the curricular content is crucial for enhancing student motivation. 3. Setting Clear, Short-term Goals: Establishing specific, time-sensitive objectives for classroom coaching can significantly improve time management and facilitate effective coaching outcomes.

Enhancing Engagement in Online Self-training: The online self-training modules utilized in this research primarily present information in a reading format, which may lead to participant disengagement due to monotonous media. Therefore, it is advisable to diversify the range of materials to maintain teacher interest, incorporating resources such as e-books, journals, videos, recorded lectures, quizzes, discussion forums, live question-and-answer sessions, and interviews.

Furthermore, the incorporation of effective online learning strategies is vital, which may include:

- The establishment of a conducive learning environment.
- Development of a structured schedule for the completion and review of assignments.
- Promotion of virtual interactions with peers.
- Utilization of the 'chunking' strategy to partition tasks effectively.
- Fostering personal significance in online work.
- Encouraging independent problem-solving, prioritizing self-care, and demonstrating compassion toward others.

Collectively, these recommendations aim to enhance the implementation and overall effectiveness of the educational innovations derived from the research conducted.

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Authors contributions

Preedawan On-nangyai oversaw every phase of the research—from identifying problems and designing methodologies to developing innovative tools and conducting fieldwork. In addition, Preedawan analyzed data and prepared research reports. Throughout the process, Associate Professor Dr. Wirot Sanrattana and Assistant Professor Dr. Phrasrivajiravati provided expertise and guidance. The manuscript, drafted and revised by Preedawan On-nangyai, was ultimately reviewed and approved by both Associate Professor Dr. Wirot Sanrattana and Assistant Professor Dr. Phrasrivajiravati.

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