

Critical Participatory Action Research for Development of Private School Teachers' Work Approaches in Bangkok

Sumate Noklang¹ Peeradet Prakongpan^{2*} Walainart Meehan³ Napasanan Dechwatsinsiri⁴
Annop Niyomdecha⁵ Vata Hernandez⁶

¹⁻²Graduate school, Srinakharinwirot University, Bangkok, Thailand 10110

³Faculty of Education, Kasetsart University, Bangkok, Thailand 10900

⁴Pramandanijanukroah School, Bangkok, Thailand, 10240

⁵Code of Success CO., LTD, Bangkok, Thailand, 10300

⁶Kaweah Health Medical Center, Visalia, California, United States of America, 93291

*Corresponding author e-mail: peeradet@g.swu.ac.th

Received: July 3, 2023

Revised: November 3, 2023

Accepted: November 21, 2023

Abstract: This critical participatory action research was conducted to develop the work approaches among teachers in a private school in Bangkok. The study was framed around the participatory discipline, as follows (1) explore work problems; (2) study the guidelines of work approaches; and (3) develop the work abilities of teachers. A principal, eight private school teachers, and six researchers were engaged as participants, and divided into two groups: insiders and outsiders. Content analysis was used for data collection with a qualitative approach, such as participatory focus groups, in-depth interviews, document analysis, and action learning were applied. The findings showed that private school stakeholders address the importance of work problems and work management by systematically focusing on the abilities and problem-solving skills and were divided into three dimensions of work problems among private school teachers, e.g., workload problems, work context problems, and work management problems. It also presents that the action learning process can promote abilities and problem-solving skills, collaborative teamwork, and other needed individual skills to achieve the goals of the school. Moreover, the development aims to enhance the abilities of teachers, problem-solving skills, and management from action learning, impacting three stakeholder levels: individual, team, and organization.

Keywords: Critical participatory action research, Development of work approach, Action learning, Learning for change, Private school teacher

Introduction

The Thailand Office of the Basic Education Commission (OBEC) addressed the importance of teachers and educational personnel development since they are a crucial key to driving the quality of education, especially learning activities and the promotion of education to enhance the qualities of learners in many aspects, such as knowledge, skills, and competencies that are both essential in primary education core curriculum in the 21st century. In terms of educational quality, OBEC launched many projects to develop models and approaches for teachers and educational personnel to help them manage and work efficiently (Office of the Basic Education Commission, 2018). Many schools and educational organizations find the development of teachers and educational personnel important for elevating abilities and skills among teachers. Many teachers have struggled with other workloads alongside teaching, e.g., general administration, financial administration, school management, academic work, school assessment, school projects, and others. Moreover, many teachers in private schools from the Bangkok metropolitan area are established by the framework and identity of educational management, whose organizational culture and structure are different and far beyond state schools (Klibthong & Agbenyega, 2022; Ratanasiripong et al., 2021).

With awareness of these problems may affect the performances of teachers, teachers should have the abilities and skills to cope with the obstacles creatively, because they are role models in terms of education and to nurture problem-solving skills for learners (Bahar

et al., 2021; Ummah & Yuliati, 2020). Moreover, collaboration through sharing ideas and thoughts during work can create a good organizational culture, solve work problems diversely and creatively, and push forward teachings and other workloads to be possibly accomplished (Catelli et al., 2000; Orgoványi-Gajdos, 2016). Within the context of educational research, Tran (2009) stated that action research is the process of knowledge acquisition, scientifically and through critical evaluation of practices leading to efficiently solve a determined problem. Many professional researchers apply action research to the educational field. Therefore, teachers and educational staff can adapt their roles from consuming research to improve the quality of their work. Phuwanon & Prakhu Dhammapissamai (2018) also noted that the bridge between theory and practice is action learning, whose process attaches great importance to the participation of individual, team, and organization levels to learn and improve the skills to solve problems creatively. Based on what was discussed above, this critical participatory action research (CPAR) for developing the work approaches among teachers in a private school in Bangkok will expand the area of collaborative working that augments the abilities and skills and explore the practical guidance for work immensely. The purposes of this research were as follows: (1) to explore the context and problem statements of teachers working in a private school; (2) to develop guidelines for the work approaches of teachers in a private school; and (3) to develop work approach abilities of teachers in a private school.

Conceptual Framework

The research was conducted using the cycle framework of PAOR or Plan, Act, Observe, and Reflect by Kemmis et al. (2014), and was based on five main concepts (See Figure 1 for conceptual framework).

Transformative Learning

This classification of learning theories is generally regarded as the learning theory for adult learners. With a focus on sociology and adult education, Mezirow (2000, 2003) indicated that transformative learning theory was related to disorienting dilemmas, frames of reference, meaning perspectives and schemes, perspective transformation, habits of mind, and critical self-reflection, which were used as a fundamental change in the reference frames of fixed assumptions and expectations in the minds of adults. According to constructionism, transformative learning is somewhat similar as it lets learners construct their knowledge from critical reflection and forming new frames of meaning. Mezirow's transformative learning contained ten phases: (1) disorienting dilemma; (2) self-examination with feelings of guilt or shame; (3) critical assessment of alienation sense, (4) relating discontent to others; (5) exploring options of new behavior; (6) planning a course of action; (7) implanting the plan with the acquisition of knowledge and skills; (8) experimenting with new roles; (9) building confidence in new roles, and (10) reintegrating into one's life.

Action Learning

This learning concept is fundamentally based on individual experience and practice, formally or informally. Phuwanon & Prakhu Dhammapissamai (2018) stated that many organizations addressed the importance of using action learning to develop their workforce individually and organizationally. The three uniqueness of action learning in the workplace were as follows: (1) learning from work experience, which leads to problem-solving; (2)

learning from sharing experiences with co-workers or team members, leading to finding the best practice; and (3) learning from criticism or suggestions leading to improving work outcomes. Ozanne & Saatcioglu (2008) suggested that the Action learning process is extensively applied when urgent problems are determined. To diversely create ideas and knowledge for solving problems, there should be a few members from different fields and experiences. Moreover, Aubusson et al. (2012) also noted that the action learning process is not just a process to gain the correct answer. However, its process requires deep reflection and communication to stimulate perspectives, ideas, or thoughts of learners in many aspects systematically leading to finding best practice or solving a problem effectively.

Critical Participatory Action Research (CPAR)

Critical Participatory Action Research (CPAR) draws its foundations from critical theory, which recognizes the existence of improper power relations within society, communities, groups, and organizations. The primary goal of critical theory is to understand and transform these power relations, ultimately encouraging social revolutions. Moreover, critical theory challenges the traditional power dynamics between researchers and participants, highlighting the need for a more egalitarian approach.

Critical theorists stated that societal practices perpetuate inequities, but they also believe in the potential for change and strive to achieve a desired state of fairness through collective inquiry (Steinberg & Kincheloe, 2010). When transitioning from Participatory Action Research (PAR) to CPAR, essential concepts from the PAR process, such as participatory nature, action-oriented approaches, and collaboration, are carried forward. Thus, CPAR is the primary concept to form this research framework, and the approach used in this research is applied using the concept by Kemmis et al. (2014). The spiral four-step process, known as PAOR, stands for the following:

(1) Plan: Researchers and participants work together to explore problems and then planned to study and analyze more relevant points, such as problem states, relevant stakeholders, or problem solutions. This part forms the guidelines for the systematic problem-solving structures and plans.

(2) Act: This stage is to assign responsibility to everyone and work on the plan(s) from the previous process. However, this process can be flexible and adapted to the actual situation, depending on the considerations and decisions of the participants to make the action process move as planned.

(3) Observe: An observer must record expected and unexpected incidents during the research process. The observer focuses on the CPAR process and its effects while collecting data.

(4) Reflect: The final stage assesses or measures the process, problems, or obstacles during the CPAR process. Researchers and stakeholders participated in the assessment process by exchanging information, knowledge, ideas, opinions, and other essential data to find an agreement between all stakeholders, leading to the development of the following research phase. The spiral four-step process will be implemented again and again until the results are found.

Work performance improvement

It is the concept of changing or improving oneself until meeting satisfaction in work performance (Robinson Jr & Green, 2011). In an organization, the work performance improvement of staff is essential and must be supported by the management team by

allowing and encouraging their subordinates to improve their approaches (Fleming & Spicer, 2014; Robinson Jr & Green, 2011). To improve work performance effectively, Petersen et al. (2012) suggested four main guidelines including the following: (1) quality – improving work performance should be of high quality because the outcomes from the developed work approaches can be satisfactory and ultimately beneficial to all; (2) quantity – the outcomes should be follow expectations and organizational policy; (3) Time – expense on work should be well aware, instant, and relevantly consumed; and (4) Cost – each improved work performance should be suitable, practical, and cost-effective.

Public Sphere

It is the concept of social relations proposed by Habermas (1991), where individuals come together to liberally discuss and explore societal problems and influence political or social action. This concept has made the public sphere common, where ideas and information concerning public matters or mutual interests can be exchanged with opposing or diverging views expressed by the public. The public debate occurs mainly through the mass media, at meetings or through social media, academic publications and government policy documents. In this study, the public sphere is created by stakeholders to articulate the needs of the problem statement in a private school context for the development of work approaches through a focus group. Moreover, the public sphere ideally forms participation through talk and deep listening, leading to structural changes that transform understanding.

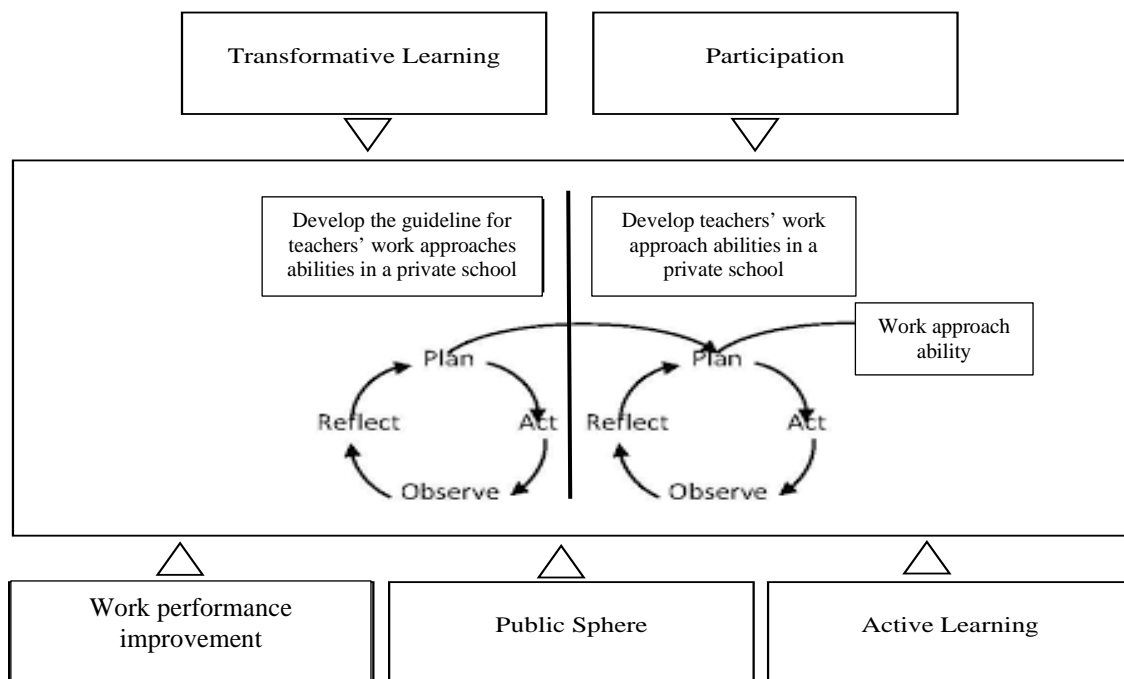


Figure 1. Conceptual Framework

Research Methodology

The study employed qualitative methods to gather data, including focus groups, participant observations, in-depth interviews, and document analysis. Content analysis was utilized to analyze the collected data. The reliability of the content analysis was done through triangulation techniques, including method triangulation, triangulation of source, and theoretical triangulation (Leavy, 2017).

Stakeholders/Research team

This research was conducted at a private school in Bangkok. The participants were stakeholders from the school and the research team. The participants were purposively selected from a list of teachers in the private school who wished to improve their work approach. They were divided into two groups: the insiders – eight private school teachers and one principal and the outsiders – six researchers.

Research process

The research process consisted of two distinct parts, which are outlined below:

Part 1: Pre-plan research: The pre-plan research was conducted to study the context and problem statement of a principal and teachers working in a private school in Bangkok. Participant observation, in-depth interviews, and document analysis were used to collect data, which took a month to complete.

Part 2: Critical Participatory Action Research: This part was conducted after the pre-plan research to develop the guideline for the work approach of teachers in a private school in Bangkok. It took three months to complete the whole process. Focus groups, participant observation, and in-depth interviews were utilized for data collection. The stakeholders were divided into two groups: insiders – eight private school teachers and one principal and outsiders – six researchers. There were two phases in this part.

In the first phase, the findings obtained from the study of the research context and problem statements were transformed into a structured planning process. In order to establish the guidelines aimed at enhancing the work approaches of teachers in a private school in Bangkok, researchers employed focus groups, participant observation, and in-depth interviews. After that, stakeholders engaged in collaborative reflection to provide their insights and suggestions for planning the subsequent phase. After this phase, the researchers gathered and summarized the information in preparation for the next stage.

During the second phase, the stakeholders implemented the guidelines formed in the previous phase to develop the work approach abilities of teachers in a private school in Bangkok. The data collection involved focus groups, participant observations, and in-depth interviews. Afterward, stakeholders engaged in collaborative reflection on their actions, concerns, and outcomes to further develop their work approach abilities. Figure 2 below shows the PAOR cycle (Plan, Act, Observe, and Reflect).

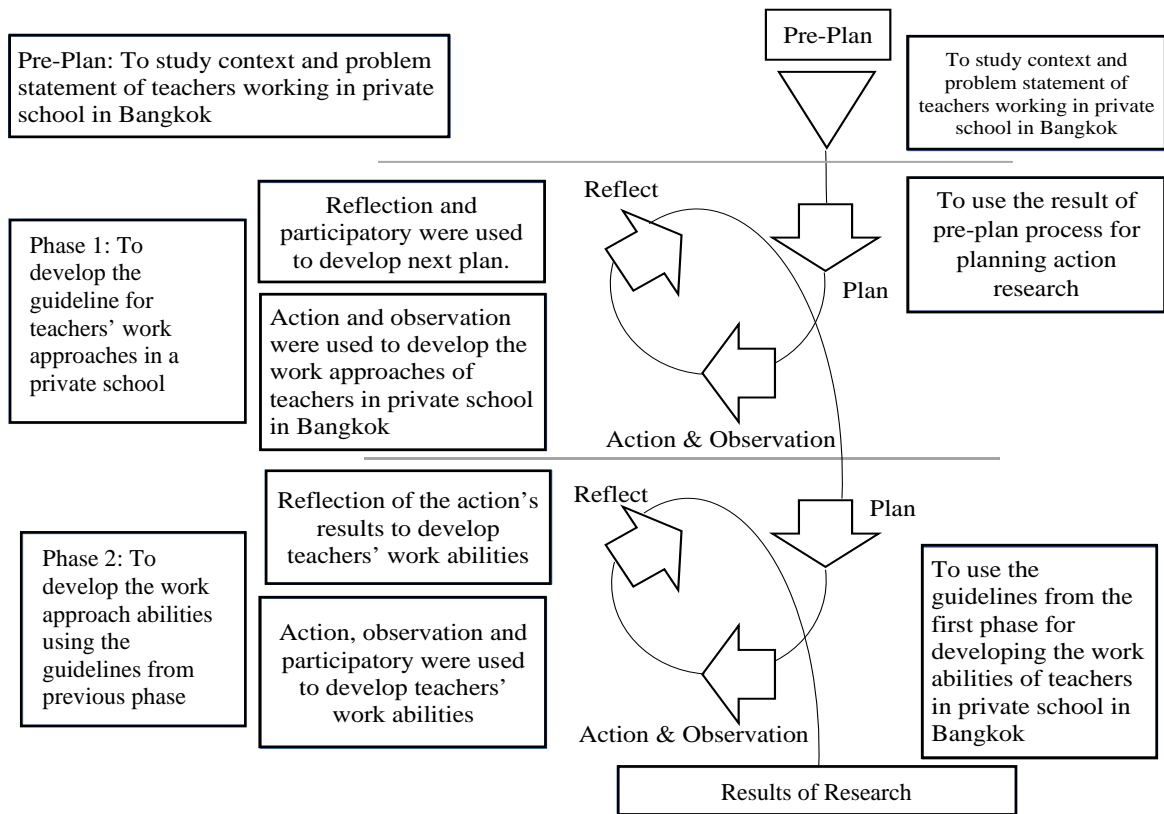


Figure 2. PAOR cycle of this research

Table 1. The CPAR process, the expected results in each phase, and the research tools to collect and analyze data

Research Process	Expected Outcome	Data Collection	Data Analysis
Part 1			
Pre-plan research			
-To study the private school context	Understanding the basic information about problems during work and finding ways to develop their work approaches	- Participant observations	Content Analysis
-To study the problem statement of teachers working in a private school		- In-depth interviews - Document analysis	
Part 2			
Phase 1			
Plan (P)	Understanding the needs and plan for developing guidelines to improve work approaches	- Focus groups	Content Analysis
To use the result of the pre-planned research for planning action research		- Participant observations - In-depth interviews	
Act & Observe (A & O)	A guideline to develop work approaches	- Focus groups	Content Analysis
To act on the guidelines improving the work approach abilities of teachers in a private school in Bangkok		- Participant observations - In-depth interviews	

Table 1. (continue)

Research Process	Expected Outcome	Data Collection	Data Analysis
Reflect (R) To reflect collaboratively on developing the next plan	Reflection on phase one and a plan for the next phase.	- Focus groups - Participant observations - In-depth interviews	Content Analysis
Phase 2 Plan (P) To use the guidelines from the first phase for developing the work abilities of teachers in a private school in Bangkok	To plan for actions	- Focus groups - Participant observations - In-depth interviews	Content Analysis
Act & Observe (A & O) To develop the work abilities of teachers	To act collaboratively in developing problem-solving work approaches	- Focus groups - Participant observations - In-depth interviews	Content Analysis
Reflect (R) To reflect on the results of action results to develop the work abilities of teachers	To reflect the results to develop work abilities and to reflect the process that enhances the further implementation	- Focus group - Participant observation - In-depth interview	Content Analysis

Research results

The aims of this study were discovered and framed around the CPAR as follows: (1) to explore the context and problem statements of teachers working in a private school in Bangkok; (2) to develop the guidelines for the work approaches of teachers at a private school in Bangkok; and (3) to develop the work approach abilities among teachers in a private school in Bangkok.

1) Context and Problem Statements of a Private School in Bangkok

Context of a private school in Bangkok

Private school in Bangkok, under the management of a Catholic church organization, with their own cultural identity and policy, which is obligated and expected to be held. School administration depends on the decisions of school board members, which stay in position for a prolonged period. However, once the term of the board member is completed, it usually leads to sudden change and the discontinuation of operations that affect teacher workloads.

Workload problems

It is found that many teachers in private schools in Bangkok have workload problems. Their primary task is teaching under their department, assigned curriculum, or class level, and they are responsible for 15-21 hours per week. Moreover, another teacher was responsible for student development by providing extracurricular classes or homeroom, enhancing the academic skills and lives of the students, including educational and personal counseling. The student development task is essential, and other school administrative tasks

are assigned to teachers, e.g., appraisal service, instruction service, academic service, financial work, human resources, and so on. Unfortunately, inequality might happen since these school administrative tasks were favorably selected and assigned to teachers by school board members. They are rarely assigned the right to the capability of teachers themselves. Most stakeholders agree that abundant workload is the main problem affecting teaching effectiveness and educational development, with a major or minor effect on student development in the future.

Work context's problem

There are many contextual work problems, such as the age gap, seniority system, rules and obligations, welfare or salary, which led to the effect of several dimensions of work – i.e., some work contexts feasibly create work structures irrelevantly to work's expected outcomes, work pressure from rules and obligations, or different and unconnected working styles from the generation gap. Most participants agree that work context tremendously influenced teacher motivation, so proper work management should be towards work structures that enhance practical work.

Work management problems

The finding of work management problems showed a standard working style between practitioner-level teachers (K1) and chief teachers (K2-K5), working with intuition and previous experience. Without systematic working standards, they can create and implement work plans in the actual work context. Moreover, there are communication problems among teachers – i.e., some teachers lack communication and participation skills, including the common shared goal, which leads to discontinuous, ineffective work. To manage work problems efficiently, most stakeholders agree that some standard guidelines promote various work approaches. This can decrease some problems, leading to more effective and systematic work, including work abilities and skills.

From the information above, all participants had a joint focus group with researchers to analyze work problems and problem management, leading to the most urgent issue that should be prioritized in this study. According to an agreement, the development of work approaches among teachers should be focused on – i.e., work approaches that should be prioritized involve systematic problem-solving through problem analysis and identifying the best solutions for subsequent work planning and prevention.

2) Guidelines to Develop Work Approaches Among Teachers in Private Schools in Bangkok

This phase of CPAR aimed to explore guidelines to develop work approaches among teachers by planning the further process of CPAR using participant observation, focus groups, and in-depth interviews as research tools. It was found that the work approaches consisted of two main components: (1) the stakeholders developed work approaches; and (2) the guidelines for developing work approaches among teachers in a private school in Bangkok.

The stakeholders to develop work approaches

The stakeholders play essential roles in developing work approaches of teachers. All school board members, principals, chief teachers, and teachers must participate to enhance their problem-solving skills and systematic work management in a specific school context. Letting all stakeholders be part of the problem-solving process leads to willful participation and a maximized benefit for all.

The guidelines for the development of work approaches among teachers in a private school in Bangkok.

The stakeholders shared their opinions and thoughts towards the expected outcomes from guidelines for the development of work approaches with CPAR – i.e., to obtain the best practice, the participants collaboratively analyzed the pros and cons of guidelines and brainstormed on several practical solutions, leading to the development of work approaches. Moreover, their expected outcomes from guidelines were abilities and problem-solving skills, critical thinking, and collaborative teamwork, which led to solving the correct problems in their school context.

3) Development of Work Abilities Among Teachers in Private Schools in Bangkok

In this phase, it was found that there were three aspects of developing work abilities among teachers in a private school in Bangkok, as follows:

Development of problem-solving and problem management

CPAR enhances problem-solving and problem management, which impacts three levels of stakeholders, individuals, teams, and organizations, as follows:

Individual-level – To be part of the process, CPAR allows all participants to select the leadership competencies to focus on. During this process, each selective skill was raised to solve the problem appropriately, e.g., creative thinking, systematic thinking, listening, questioning, teamwork, participation, and achievement motivation.

Team level – The CPAR process promotes teamwork skills such as questioning, deep listening, reflection, and learning exchange among group members. These create a teamwork atmosphere, which allows members to be a part of the process/action, listen to one another, and learn to solve problems in a team.

Organization level – Learning exchange through the CPAR process allows the participants to adapt their work problem as a case study that can be instantly applied to actual organizational contexts.

Guidelines for a variety of problem solutions

Stakeholder participation in the CPAR process assures that most stakeholders ideally believe that there are plenty of problem solutions, based on their experiences, ideas, thoughts, knowledge, and learning exchanges with group members.

Systematic problem solving

After stakeholders participate in the development process, they can work on the conclusion of work approaches to solve problems. By learning exchange, they can prevent or decrease the risk of problem repetition and construct the standard work approaches to apply further effectively and efficiently.

4) Reflective Practice

From the research findings, the reflection practice can be divided into two main points, as follows: (1) participatory reflective practice; and (2) the reflection on the development of the work approaches of teachers.

Participatory reflective practice

The stakeholders participate in the process and are aware of developing work approaches and management, focusing on systematic problem-solving. Its reflective process allows all level participants, such as school board members, principals, chief teachers, and practitioner-level teachers, to equally share their experiences, ideas, opinions, and knowledge, including pro and con analysis information to explore problem solutions and the best practice that can be standard guidelines for further work approaches among teachers in a private school in Bangkok. The atmosphere of participatory reflective practice creates a learning climate and deep listening for participants to collaborate evenly. However, it also encourages all members to respect one another and embrace the value of others during work, leading to better and more effective work.

The reflection on the development of the work approaches of teachers

To participate in the CPAR process, the stakeholders discover new knowledge and guidelines for many work approaches to improve their work, leading to a better attitude towards problem-solving – i.e., most participants are accustomed to focusing on problems happening themselves on their own. However, once they attend the focus group, their attitude towards problem handling is shifted to several collaborative and suitable solutions to cope with the problem correctly, especially in the actual context of a private school in Bangkok. Moreover, all level participants feel a sense of belonging and ownership to all problem-solving processes because they share feedback, leading to collaborative decision-making to improve work approaches. The participants developed work approaches beneficial to themselves, the team, and organization. Therefore, they effectively implemented the approaches for further work with necessarily prepared skills.

Discussion

The discussion can be divided into four parts, as follows:

1. Three prominent problems found in this study of the problem states of teachers in a Bangkok private school were workload problems, work context problems, and work management problems. Most stakeholders focused on developing work approaches and work management to find solutions that systematically cope with work problems, leading to

further problem prevention and work planning. Following the analyzed work problem stated by the Office of Academic Affairs, the Secretariat of the House of Representatives, it was found that there were several dimensions of work problems. The two main points were organizational structure and workload – i.e., teachers had plenty of academic and school administrative workloads that directly affected their quality of teaching, leading to finding solutions to improve their work approach. Furthermore, Murniarti et al. (2020) mentioned that not only teachers with heavy workloads were eager to identify their needs for self-development to meet educational professional standards in many aspects, but also the awareness of self-development to improve the quality of work. All stakeholders need to improve management skills and systematic problem-solving skills, leading to a transformative approach to finding solutions, preventions, and work planning according to the concept of transformative learning of Mezirow (2003) – i.e., its process of learning aims to letting learners critically think, analyze, and synthesize knowledge in all levels ultimately leading to constructing meaningful new knowledge. McAllister et al. (2006) stated that transformative learning lets learners improve analytical thinking, critical thinking, and problem-solving skills. Many transformative learning activities promote learners to be genuinely transformed in their mindset towards working – i.e., transformative learning always focuses on a new paradigm of learning to cope with critical thinking, self-questioning, self-analysis, brainstorming, criticizing, deep listening without judgment, or creatively feedback providing. It may be true that transformative learning can develop work approaches by systematically increasing problem management and problem-solving skills, leading to effective work development.

2. Another research result presented guidelines to develop the work approach of teachers in a private school in Bangkok showed that stakeholders were aware of the importance of participation in the development and management process, and solving problems systematically. It seemed to be a significantly practical approach leading to letting all research participants obtain ownership in every process of guideline development that was beneficial to all stakeholders – i.e., all participants collaboratively participated in brainstorming, sharing the experiences and ideas, analyzing the pros and cons of guidelines, knowledge acquiring, and being supportive. Moreover, the study by Jongudomkarn (2014) mentioned that participation allowed organizational stakeholders to take part in planning and action. Not only would this elevate the organization to meet its expected goals and benchmarks efficiently, but it also created a positive atmosphere for organizational members, such as being inspired and motivated, a sense of belonging and ownership, gaining pride, and feeling enthusiastic to succeed, and so on. According to Creighton (2005), participation in the process of being concerned and putting needs and values towards decision-making through two-way communication and shared relevant purpose. Besides, the study of Boonruksa (2017) showed that school board members applied a participatory approach to teachers by supporting them to achieve in every assigned activity, letting them plan and act, including giving them feedback for further work improvement leading to the promotion of development in the work approaches of teachers.

3. After phase two of CPAR, the results showed that the process can promote the abilities and problem-solving skills, collaborative teamwork, and other needed individual skills to achieve the school's goals. Moreover, the development aims to enhance the abilities and problem-solving skills of teachers and management from CPAR, which impacts three levels of stakeholders: individual, team, and organization. This results also indicated that after all stakeholders participated in each problem-solving process, it led to adapting implementation for the current situation. This process was accorded to a concept of action

learning rapidly applied as a problem-solving tool in many worldwide organizations. Moreover, CPAR was a part of the team-building learning process, empowering the leadership process, and creating organizational culture changes. According to Marquardt et al. (2018) and Park et al. (2020), action learning played an essential role in the participative process, leading to stakeholders finding a problem-oriented solution. It created an attitude or mindset towards work problems by handling it systematically by sharing and exchanging opinions, ideas, and knowledge, including the experiences of organizational members. Furthermore, it led to standardized guidelines that helped work efficiently and sustain future leadership development for organizations or communities.

4. The final finding was that reflection helps in the development of work approaches among teachers because participating in the CPAR process lets them discover knowledge and guidelines, enhancing a variety of work approaches. It also directly influenced a positive changed attitude towards problem-solving – i.e., the reflection process could form many appropriate critical and creative solutions that fit the best situation handling. According to the study by Saisakha (2020), a training program for Bangkok Airways personnel used learning-by-doing principles enhanced core competencies significantly and their satisfaction reached a maximized level prominently. Moreover, small group reflection about exciting and relevant problems in an organization was a genuinely effective tool in problem-solving because it was an opportunity to construct new knowledge or guidelines that could be implemented in a natural context (Gillies, 2011; Samson, 2015).

Conclusion

CPAR allows stakeholders to collaborate and value each member, leading to acceptance of each other at work. Moreover, sharing work problems among members could provide solutions for the problem, which was crucially beneficial to members, teams, and organizations. The process was accorded to a concept of the public sphere that once an individual used their knowledge, expressed their thoughts reasonably, and opened up in a public place, leading to the chance for other people to access and occupy the space that allows people to criticize and summarize into logically concrete and practical principles. At the same time, it is a concept of exchanging conversations between two people or among group members that lets the learning process occur. It helps people see the values and the intelligence of one another. Therefore, it lets people create a new dimension or perspective towards entire belief and reasoning precisely. It can be said that this leads to a new paradigm of attitudes and reasoning patterns.

References

- Aubusson, P., Ewing, R., & Hoban, G. (2012). *Action learning in schools: Reframing teachers' professional learning and development*. Routledge.
- Bahar, A. K., Maker, C. J., & Scherbakova, A. (2021). The role of teachers' implementation of the real engagement in active problem solving (REAPS) model in developing creative problem solving in mathematics. *Australasian Journal of Gifted Education*, 30(2), p. 26-39. <https://doi.org/10.21505/ajge.2021.0013>

- Boonruksa, S. (2017). Participatory action research for development of the knowledge management model of school in Muang Pattaya: case study of Muang Pattaya 7 school (Ban nong khae). *Phikanatesan*, 13(1), p. 27-42.
- Catelli, L. A., Costello, J., & Padovano, K. (2000). Action research in the context of a school–university partnership: its value, problems, issues and benefits. *Educational Action Research*, 8(2), p. 225-242. <https://doi.org/10.1080/09650790000200119>
- Creighton, J. L. (2005). *The public participation handbook: Making better decisions through citizen involvement*. John Wiley & Sons.
- Fleming, P., & Spicer, A. (2014). Power in management and organization science. *Academy of Management Annals*, 8(1), p. 237-298.
- Gillies, R. M. (2011). Promoting thinking, problem-solving and reasoning during small group discussions. *Teachers and Teaching: theory and practice*, 17(1), p. 73-89.
- Habermas, J. (1991). *The Structural Transformation of the Public Sphere: An Inquiry Into a Category of Bourgeois Society (T. Burger, Trans.)*. MIT Press.
- Jongudomkarn, D. (2014). A volunteer alcohol consumption reduction campaign: participatory action research among Thai women in the Isaan region. *Asian Pacific Journal of Cancer Prevention*, 15(17), p. 7343-7350.
- Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The action research planner: Doing critical participatory action research*. Springer.
- Klibthong, S., & Agbenyega, J. S. (2022). Assessing issues of inclusive education from the perspectives of Thai early childhood teachers. *International Journal of Early Years Education*, 30(2), p. 403-418.
- Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications.
- Marquardt, M. J., Banks, S., Cauwelier, P., & Seng, N. C. (2018). *Optimizing the power of action learning: Real-time strategies for developing leaders, building teams and transforming organizations*. Nicholas Brealey.
- McAllister, M., Venturato, L., Johnston, A., Rowe, J., Tower, M., & Moyle, W. (2006). Solution focused teaching: a transformative approach to teaching nursing. *International Journal of Nursing Education Scholarship*, 3(1), p. 1-13.
- Mezirow, J. (2000). *Learning as Transformation: Critical perspectives on a theory in progress: The Jossey-Bass higher and adult education series*. Jossey-Bass Publications.
- Mezirow, J. (2003). Transformative learning as discourse. *Journal of transformative education*, 1(1), p. 58-63.
- Murniarti, E., Sihotang, H., & Rangka, I. B. (2020). Life satisfaction and self-development initiatives among honorary teachers in primary schools. *Elementary Education Online*, 19(4), p. 2571-2586.
- Office of the Basic Education Commission. (2018). *Annual report 2018*. Ministry of Education.
- Orgoványi-Gajdos, J. (2016). *Teachers' professional development on problem solving: Theory and practice for teachers and teacher educators*. Sense Publishers.
- Ozanne, J. L., & Saatcioglu, B. (2008). Participatory action research. *Journal of consumer research*, 35(3), p. 423-439.
- Park, S.-H., Cho, Y., & Bong, H.-C. (2020). Action learning for community development in a Korean context. *Action Learning: Research and Practice*, 17(3), p. 273-291.
- Petersen, E., Plowman, E. G., & Trickett, J. M. (2012). *Business organization and management*. Literary Licensing, LLC. <https://books.google.co.th/books?id=IRmMuQAACAAJ>

- Phuwanon, W., & Prakhu Dhammapissamai. (2018). The development of learning and practice for one stop service of provincial electricity authority personal in Chumphae District Khonkaen Province. *Journal of Education, Mahasarakham University*, 12(3), p. 144 – 156.
- Ratanasiripong, P., Ratanasiripong, N. T., Nungdanjark, W., Thongthammarat, Y., & Toyama, S. (2021). Mental health and burnout among teachers in Thailand. *Journal of Health Research*, 36(3), p. 404 – 416.
- Robinson Jr, J. W., & Green, G. P. (2011). *Introduction to community development: Theory, practice, and service-learning* (J. W. Robinson Jr & G. P. Green, Eds.). Sage.
- Saisakha, N. (2020). A core competencies enhancement training program for Bangkok Airways personnel using the learning by doing principle. *Social Science Journal*, 10(3), p. 691-705.
- Samson, P. L. (2015). Fostering student engagement: Creative problem-solving in small group facilitations. *Collected Essays on Learning and Teaching*, 8, p. 153-164.
- Steinberg, S., & Kincheloe, J. (2010). Power, emancipation, and complexity: Employing critical theory. *Power and Education*, 2, 140-151. <https://doi.org/10.2304/power.2010.2.2.140>
- Tran, T. T. H. (2009). Why is action research suitable for education? *VNU Journal of Foreign Studies*, 25(2), p. 97-106.
- Ummah, I. K., & Yuliati, N. (2020). The effect of jumping task based on creative problem solving on students' problem solving ability. *International Journal of Instruction*, 13(1), p. 387-406.