Effective Approaches to Teacher Professional Development in Thailand: Case Study

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Abstract

This research aimed to investigate effective approaches to teacher development as a meaningful form of professional development (PD). The objective was to assess the impact of teachers' learning as an approach to PD and to summarize best practices. The study involved teachers from two primary schools who participated in the Healthy School Empowerment Project, a four-year collaborative learning initiative designed to support educators in improving classroom instruction and enhancing school performance. The findings revealed the most effective approaches for professional development and enhancing teachers' learning include establishing the school as a professional learning community (PLC), implementing teacher-as-learner programs, providing coaching by master teachers, and fostering teacher networks.

Keywords: teacher professional development, teacher learning, focus group research

1. Introduction

Over the past three decades, the Thai education system has been considered a notable model for teacher development, with responsibility vested in the agencies within the Ministry of Education. At the core of this system lies the "training of trainers" model (Office of National Education Commission, 1997; Queensland University of Technology, 2002). This model consists of several key steps, beginning with MOE agencies (i.e., MOE departments) creating a comprehensive master plan with specific objectives to be achieved on an annual basis or within a given budget year. Subsequently, these agencies develop training modules that encompass guidelines for centralized training, and, in some cases, they provide self-study training options for individual teachers or schools. The central agencies then undertake the training of a core group, which primarily includes provincial or education area supervisors, occasionally master teachers, and other relevant personnel. These trained individuals are subsequently responsible for continuously training teachers at the provincial or education area level. Although this model offers certain advantages, such as addressing predetermined priorities, it is not without its drawbacks, which include a lack of an accountability system based on results, limited opportunities for teachers to express their needs, a lack of integration between the processes of developing school curriculum and teacher learning, and inadequate support for teachers in applying new teaching methods effectively in the classroom

At present, the teacher professional development system has transitioned to a new model of teacher training, which was introduced in 2017 through the government's teacher coupon policy. Under this policy, universities or private agencies endorsed by the Ministry of Education (MOE) are authorized to provide training for teachers. Although there are variations among the agencies, the typical approach involves a "short course training" model. This model has both advantages and disadvantages. An effective training approach should encompass the following aspects of learning: introducing the fundamental principles of instruction, providing practical classroom demonstrations, encouraging questions and discussions, guiding teachers in practicing new methods under controlled conditions, and assisting them in transferring these new practices into their own classrooms with ongoing coaching. Unfortunately, the current model often overlooks the last component, which involves supporting teachers in the actual application of new teaching methods in their classrooms. This issue has been a significant concern, as evidenced by the experiences in schools. In such situations, many teachers either do not fully implement the new methods or only partially implement them, resulting in minimal positive impact on their

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teaching. According to Darling-Hammond, Wei, Andree, Richardson and Orphano (2009), effective professional development should afford teachers ample time for learning, practicing, implementing, and reflecting on new strategies that lead to changes in their instructional practices. Therefore, robust professional development initiatives typically engage teachers in continuous learning over weeks, months, or even academic years, rather than relying on short, one-off workshops.

2. Literature Review

2.1 Overview of Professional Development

Teacher professional learning is increasingly becoming of great interest as a critical method of supporting the increasingly complex skills students need to learn to succeed in the 21st century. Sophisticated forms of teaching are needed to develop students' competencies such as deep mastery of challenging content, critical thinking, solving of complex problems, effective communication and collaboration, and self-direction. In turn, effective professional development is needed to help teachers learn and refine the instructional strategies required to teach these skills (Darling-Hammond, Hyler, & Gardner, 2017). The process of professional development, according to Erawan (2008), takes time and is a continuous process because teachers must change their teaching behaviors in response to the needs of the learners. Better practice involves training in teaching skills, continuing monitoring of the work process after training, creating teamwork within schools by holding meetings to consider learning and teaching problems, and periodically holding team building meetings. This will allow teachers to learn about different teaching methods and develop instructional innovations of their own.

Darling-Hammond et al. (2017) found seven widely shared features of effective professional development: (1) is content focused; (2) incorporates active learning utilizing adult learning theory; (3) supports collaboration, typically in job-embedded contexts; (4) uses models and modeling of effective practice; (5) provides coaching and experts support; and (6) offers opportunities for feedback and reflection. Despite this, Tooley and Connally (2016) suggested that, even the best-designed professional development may fail to produce desired outcomes if it is poorly implemented due to barriers such as the following:

- Inadequate resources, including necessary curriculum materials
- Lack of a shared vision about what high-quality instruction entails
- Lack of time for implementing new instructional approaches during the school day or year
- Failure to align state and local policies toward a coherent set of instructional practices
- Dysfunctional school cultures
- Inability to track and assess the quality of professional development

2.2 Teacher Development Approaches

Teacher development is not limited to a two-and-a-half-hour workshop conducted by someone brought in by the agency or school. Ambrose et al. (2010) defined learning as a process that leads to change based on experience, and it increases the potential for improved performance and future learning. This definition has three critical components: (1) learning is a process and not a product; (2) learning involves change in knowledge, beliefs, behaviors, or attitudes; and (3) learning is not something done to students, but rather something students do by themselves.

The development of teachers beyond their initial training period has a number of objectives (Organization for Economic Cooperation and Development, 1998):

- To update one's knowledge of a subject based on current advances in the area
- To update one's skills, attitudes and approaches based on the development of new teaching techniques and objectives, new circumstances and new educational research
- To enable one to apply changes made to curricula or other aspects of teaching practice
- To enable schools to develop and apply new strategies concerning the curriculum and other aspects of teaching practice
- To exchange information and expertise among teachers and others (e.g., academics, industrialists)
- To help weaker teachers become more effective

Current conceptions of teacher development approaches moved from individual training to school-based training in the professional community. Loucks-Horsley, Love, Stiles, Mundry and Hewson (2003) noted principles apply to the design and facilitation of all teacher learning, regardless of content area or teacher certification area;

they are driven by a vision of the classroom, help teachers develop the knowledge and skills needed to create a vision, mirror methods to be used by students, build a learning community, develop teacher leadership, create links to the system, and are continuously assessed. The most logical and effective way to begin developing a professional learning community is to bring the professionals together to learn. Hord (1997) asserted school development and improvement are directly dependent upon teachers' development and improvement. Without this critical link, little will change toward bringing quality learning experiences to the classroom. School principals and teachers who successfully transform themselves into such learning organizations promote the professionalization of teachers and offer improved educational opportunities for students as well. A learning community of professionals in a school represents a viable context in which teachers and principals can share decision-making, collaborate on their practice, and hone their skills to increase students' learning. Avalos (2011) critically studied the power of teacher co-learning. The road starts with informal exchanges in school cultures that facilitate the process and continues in networking and interchanges among schools and situations and is strengthened in formalized experiences such as courses and workshops that introduce peer coaching or support collaboration and joint projects. In whatever way, the lesson learned is that teachers naturally talk to each other, and that such a talk can take on an educational purpose. It also is true that, in many places, classroom teaching continues to be a solitary activity. Therefore, to move from co-learning through talk to co-learning through observation and feedback is necessary, as well as effective, as illustrated in experiences such as lesson study.

3. Statement of the Problem

In the Thai education system, the current approach to teacher development relies on short-course training facilitated through the teacher coupon policy. However, the MOE may consider reimagining the teacher development process by examining successful practices from other programs. Alternative approaches to teacher learning and development have proven effective. This study will now elaborate on the outcomes of these approaches and provide insights into their current implementation.

This study aims to examine the impact of teachers' learning as an approach to professional development and to summarize the best practices in teacher development approaches. The focus of this study is on primary school teachers who participated in the Healthy School Empowerment Project, a four-year collaborative learning initiative designed to support educators in improving their classroom instruction and enhancing their schools. By exploring the experiences of teachers who participated in this project, this study addresses two main questions: (1) How does the professional development experience challenge teachers' attitudes toward teaching and student learning? (2) What practical approaches can be employed to enhance teachers' learning and improve their classroom practices?

4. Methods

According to Creswell and Creswell (2018), the purpose of qualitative research is to understand the meanings that groups and individuals have regarding a human or social issue. Qualitative research is often criticized for lacking the rigor and objectivity of quantitative research, but it is guided by a set of effective research method principles.

This study is based on the focus group methodology, which is one of the many qualitative approaches (Patton, 2002). It can be useful for orientation in a particular field of focus; for developing themes, topic, and schedules for subsequent interviews and/or questionnaires; generating hypotheses derived from the insights and data from groups; generating and evaluating data from different subgroups of a population; and gathering feedback from previous studies (Cohen, Manion, & Morrison, 2000; Krueger, 1994; Morgan, 1988).

The hallmark of focus groups is the explicit use of groups' interactions to produce data and insights that would be less accessible without the interaction found within a group (Morgan, 1988). Groups' processes are unique in the qualitative method due to their ability to generate rich, in-depth understanding of a topic based on participants' experiences and beliefs (Lambert, Conklin, & Meyer, 2001). Concerning education issues, focus groups are increasingly being used by researchers as a method of qualitative data gathering in educational contexts. This method produces a fairly high level of participants' involvement, leading to relatively spontaneous responses from students, teachers, and others. In focus group processes, participants interact with one another and not only with the interviewers. The interaction has the potential of providing greater accessibility to participants' points of view. Many researchers have used them to identify teachers' beliefs about quality in childcare (Ceglowski, 2004), early childhood education services (McLachlan, 2005), owning professional development (Adams, 2009), teachers' opinions about in-service teacher training programs in the Turkish educational system (Kavak et al., 2012), and reflections on the revised national curriculum for preschool in Sweden (Brodin & Renblad, 2014), among numerous other topics.

4.1 Participants

In selecting participants, it is important the group membership selection is described, and the results should not be generalized to other groups. Focus groups often employ participants who are strangers to reduce sharing in ways that acquaintances might expect and to increase anonymity to obtain honest responses (Creswell & Creswell, 2018; Goss & Leinbach, 1996; Kitzinger, 1995). According to Morgan (1992), a number of "rule of thumbs" have evolved to capture the most common choices researchers have made with regard to each of these decisions. The focus group projects most often (a) use homogeneous strangers as participants, (b) rely on relatively structured interview with high involvement of the moderator (c) have 6 to 10 participants per group, and (d) have a total of three to five groups per project. However, the number of focus groups depends on the topic, the research questions, and the amount of information. For many research-oriented projects, two to five focus groups are organized. Although there is no specific guidance on the number of focus groups, most studies organize at least two groups (Stewart & Shamdasani, 2015).

The participants in this study consisted of 17 primary school teachers during the second semester of the 2018 academic year. The teachers were involved in the Healthy School Empowerment Project (HSEP), conducted by the Institute for Research on Education Systems Foundation. Among them, eight teachers were from the Tung Yao Kum Proy School (TYKP), located in Sri Sa Ket Province, whereas nine teachers were from Nhon Sung Sri (NSS), situated in Muk Da Han Province. It is worth noting the HSEP was still being implemented as a model school four years ago, and it was recognized with an innovative school development award by the Office of Basic Education Commission in 2018.

In this research, two focus group interviews were conducted with groups of teachers (N = 17) involved in the project based on the school training approaches and teachers' learning community for instructional change. Group 1 (TYKP school, n = 8) consisted of three men and five women, and Group 2 (NSS school, n = 9) consisted of four men and five women. The specializations at the elementary level were as follows: elementary education (n = 5), Thai-language (n = 3), general sciences (n = 3), mathematics (n = 2), social sciences (n = 2), and English-language (n = 2). All teachers were involved in the training process for between 2 and 4 years. The author conducted the focus group interviews during the school day at the meeting room of each school. The setting in which the focus group interview was conducted was comfortable, and there was quality refreshment. In each focus group, about eight main questions (each with subquestions or probes) were covered within 90 min.

According to Freitas, Oliveira, Jenkins and Popjoy (1998), focus group results are exploratory, making them not suitable for projection to a larger population. For the analysis of focus group data, two basic forms are used: qualitative or ethnographic summary, and systematic code through content analysis. After two focus group sessions, the written consent of the participants was obtained. This analytical process included the categorization of the answers, the extraction of general concepts of the teachers' learning approaches, and the synthesis of the teachers' development model. To achieve a more direct connection with the qualitative data, the author personally transcribed, categorized, and synthesized the data.

5. Results

The findings have been presented in response to the two main questions outlined earlier. The participants' reflections have been synthesized as narratives within the text. In this study, quotations have been incorporated to exemplify the thoughts and reflections of the teachers. These quotations were translated from Thai to English by the researcher, who closely adhered to the original wording.

5.1 Approaches to Teachers Training and Changes in Classroom Practices

The teachers reported that the HSEP is a school-based training program that provides them with the opportunity to enhance their classroom practices. Therefore, they emphasized the importance of training programs being constructive and promoting collaborative learning experiences: "We attended in school-based training programs, learned from the master teachers, and participated in workshops meant for teachers as learners" (Thai-language teacher, Group 2).

After that, the schools created a community of professional intimacy and culture of sharing among teachers. In this space one can be wholehearted because censoring certain topics or ideas is not required. As the school's professional learning community (PLC), each person's reflection is accepted as worthy and worthwhile to share: "At the school, we share our problems and practices in [the] school's PLC, and [we] get feedback from classroom observation by peers and coaches" (Science teacher, Group 1).

There are many interactive approaches in which HSEP activities occur. All teachers can have access to share and learn in teachers' networks with other schools and to be coached by HSEP experts: "We have access to share and

learn from interaction[s] with teachers' networks in the project" (English teacher, Group 2) as well as "interactive learning by true action in our classroom and shar[ing] results with peers and coaches in our school" (Primary teacher, Group 1).

5.2 Feedback and Positive Experience During the Teaching Practice

Professional learning frequently provides in-built time for teachers to think about, receive input on, and make changes to their practice by facilitating reflection and soliciting feedback. Generally, interaction among teachers is often limited to free time conversations and discussions of management issues at school meetings. The design of school buildings and cultural norms of teaching encourages little, if any, professional interactions among teachers. However, the two schools in this study are structured in a way that teachers have three hours per week to meet or attend their schools' PLC meeting, where they discuss, obtain feedback, and access one another's classrooms:

It allows me to teach something in my classroom, but [I] do not think if it is wrong to come to [a] meeting every week and attend the PLC, where we get support from our principal and others and do not worry about what others think; everyone stays here to support our practices. (Mathematics teacher, Group 1)

Feedback may be offered as teachers analyze students' learning outcomes and teachers' lesson plans, which also provide opportunities for reflection about what might be refined or retained and reinforced. The feedback processes are marked by care, trust, and heartfelt feelings to share and learn among teachers. These activities are frequently undertaken in a coaching session, a school's PLC, and also teacher networks: "For me, feedback from others is important to improve our teaching practices. Our PLC is marked by care, trust, and heartfelt feelings to share and learn with others or teacher networks" (Science teacher, Group 2).

5.3 Learning How to Learn Together

All the teachers in the two focus groups try to explain whether their behaviors changed as a result of the experience or if their students' learning changed as a result of changing their teaching and learning practices in the classroom: "I'm sure that my understanding of what I was doing changed. If my students' understanding changed and if they got the right answers, it was triggered by me" (English teacher, Group 1). Additionally, "In PLC meeting[s] we discuss the problems of and solutions to students' work folios, their test results, and the results of students' behaviors from observation[s] made by peers, master teachers, and principals" (Science teacher, Group 2).

The teachers identified several persons who, according to them, have influenced their teaching. The learning from a classroom of master teachers can help them better understand teaching methods, and, then, they share the results of practices among teachers in schools' PLC meetings. Principals assist teachers to learn well and help their self-efficacy in their own classroom. "I think it's a good opportunity to learn with the master teachers in their classroom. The master teachers can help me to understand how to organize active learning in my classroom" (Science teacher, Group 1).

Principals share decision-making with teachers on substantive issues and regard them as leaders in the effort to improve school: "Principals' support is very important; it encourages me to try new teaching method[s] in [the] classroom. I'm sure that what teachers know and can do mostly influence what students learn" (Social Science teacher, Group 2).

The teachers are very interested in sharing practices, even eager to do so, given the necessary time and resources, but some are not accustomed to this practice and somewhat afraid of exposing themselves to potential criticism from their peers: "Sometimes, I don't know how to speak out [about] my idea, but sharing with peer teachers in [a] PLC meeting can influence one to change practices in [the] classroom significantly" (Primary teacher, Group 2). Furthermore, "We need follow-up support from master teachers to ensure that what we learn from them is being transferred into our classroom practices" (Thai-language teacher, Group 1).

Whatever the approach, teachers enjoin the process of school-based training. The school is meant to be a place where teachers can receive some help with that process.

6. Discussion

This study is founded on focus group interviews conducted with teachers from two primary schools participating in the Healthy School Empowerment Project in Thailand. The synthesized data revealed that the professional development approaches employed have a significant impact, enhancing teachers' learning and improving their classroom practices. These approaches encompass creating a school as a professional learning community, implementing a teacher-as-learner program, providing coaching by master teachers, and fostering teacher

networks.

6.1 Creating the School as a Professional Learning Community

Darling-Hammond et al. (2017) noted that high-quality professional development creates spaces for teachers to share ideas and collaborate in their learning, often in job-embedded contexts that relate new instructional strategies to teachers' students and classrooms. The schools in HSEP have established a program that combines training approaches with a professional learning community (school PLC) for teacher development. The school-based training approach involves orchestrating instructional improvement by involving teacher teams or subgroups within schools in systematic, carefully staged sequences of change around the use of particular instructional approaches. The critical features of the approaches include the involvement of principals and teachers in implementing changed practices so all the major participants of the change are committed to it over a sustained period of time. School PLCs help improve the skills and knowledge of teachers through interactive learning, expertise exchange, and deep dialogue, and they can enhance teachers' aspirations so they can focus on student achievement through collective leadership and teaching. This result is in accordance with Gore et al. (2017), who pointed to three key "mechanisms" of the PLC of teachers that have an effect on the quality of teaching practice for teachers in the intervention groups, namely that quality teaching rounds impact on the following: (1) the knowledge base for teaching; (2) the power relations among collaborating teachers; and (3) teaching culture in schools through new professional relationships among teachers. Furthermore, Hargreaves (1995) noted learning as a community involving discussion of classroom practices is not only important for the morale and satisfaction of teachers but is absolutely necessary for teachers to grow in their careers (Hargreaves,

As Michael Fullan (2007) pointed out, professional development as a term and a strategy has run its course. The future of improvement, indeed of the profession itself, depends on a radical shift in how we conceive learning and the conditions in which teachers and students work. In this study, the school-based training activities involved workshops, presentations, peer support for practice in the classroom, and PLC meetings for discussing implementation problems and solutions of students' learning. Such an approach also locates the effort put primarily in the school, rather than involving meetings outside the school, bringing sources of outside expertise into the school for assistance on-site and in context. One well-described result of this approach comes from two schools based on a four-year effort to improve the instructional methods and behavior of teachers. The instructional innovation in this case involved the use of a set of teaching models and strategies known as active learning, which involves students carrying out tasks in small groups during which they learn the principles of group and task behavior along with the content and intellectual skills associated with tasks and materials. This result is in accordance with Hord (1997), who summarized the findings from numerous studies to identify outcomes from students and staff when schools organized themselves as professional learning communities. For staff, the finding clustered around improvements in instructional practice and around overall professional conditions of teaching.

6.2 Teacher-as-Learner Program

A model of the teacher-as-learner program that has been particularly successful in the HSEP involves bringing teams of teachers together for several weeks in a program that uses active learning to help them understand a chunk of teaching methods to be used during the school year. In the summer workshop, teachers attempt to solve the sorts of learning outcome problems they might improve in their own classrooms. Unlike traditional workshops, teachers do not merely practice the steps of problem-solving, working through examples so they could take their students through the same steps; rather the teachers must actually solve the problems themselves, struggling as they do so to understand ideas in the active learning approach that they may previously have taught, yet never really grasped. This approach has certain advantages. Active learning provides teachers with opportunities to obtain hands-on experience design and practice new teaching strategies. In professional development models featuring active learning, teachers often participate in the same style of learning they are designing for their students, using real examples of curriculum, students' work, and instruction (Darling-Hammond et al., 2017).

Through the workshop, teachers thus deepen their understanding of the active learning approach, gain insights into how students learn, including a sense of why students may settle for simply mastering the steps of procedure, and get specific ideas and general principles about teaching that they would like to try out in their own classrooms. The consultants of HSEP offer classroom follow-up during the semesters and share their practices in teacher networks. This approach has a greater effect on teachers' learning and is important for helping teachers know their content, learning, and teaching, which are necessary for a real shift to student-centered teaching for

understanding. This finding is in accordance with Berger, Eylon and Bagno (2008), who described that teachers engage in sustained and collaborative learning processes to construct new knowledge to impact their professional practices and, ultimately, improve students' learning.

6.3 Coaching by Master Teachers

Teachers value the chances they have to observe other teachers' classrooms. They learn by seeing different approaches to common teaching tasks and appreciate the sense of shared enterprise. On a school level, one responsibility of academic cluster teachers is to provide models of good instructional practice, including demonstration classes. Although such visits generally have little impact in terms of changing practice. In this approach, Darling-Hammond et al. (2017) noted that curricular models and modeling of instruction provide teachers with a clear vision of what best practices look like. Teachers may view models that include lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of accomplished teaching.

Developing mastery in teaching is a learning process, and, as such, it requires the coupling of practice and feedback (Ambrose et al., 2010). The effective schools in the HSEP have established a program that combines classroom visitations with this crucial extended classroom follow-up. The schools identify a set of experienced master teachers who are willing to have other teachers come into their classrooms. They also pick visiting teachers who wish to improve their teaching. The visiting teachers observe and talk to the master teachers then attempt to try out some new practices in the master's classroom, with the residents' observation and feedback. Then the visiting teachers return to their classroom, where the substitute teachers remain for another week to offer assistance as the teachers attempt to apply what they have learned with their own students. Later in the semester, the master teacher and the experts from HSEP visit the visiting teachers' classroom for further coaching. Coaching and experts' support involve the sharing of expertise on content and practice focused directly on teachers' individual needs.

The HSEP is still working on transforming literacy instruction from traditional to active learning methods, as many teachers struggle to change their practice, even with the support of visits, follow-ups, workshops, and institutes. For teachers to change their teaching behaviors, the changed model involved a stage of change, paralleling the training approach, involving learning what to do, learning how to do it, expanding the changed process to the school, and institutionalizing the change. One view contends that changes in beliefs precede changes in practice (Pajares, 1992; Thompson, 1992). Other theorists and researchers have confirmed that teachers change their beliefs and behaviors after they see positive results from a change in classroom practices (Loucks-Horsley et al., 2003; Sedova, Sedlacek, & Svaricek, 2016; Speer, 2005).

6.4 Teachers' Networks

A widespread alternative in the HSEP used to provide training is the use of voluntary networks that connect teachers across and within schools who are interested in pursuing new ideas about teaching and learning. These networks are often raised informally and, at the grass roots level, often stimulated by charismatic educators who attract a following around reformed ideas and themes. Schools and teachers join voluntarily, interacting with one another via regular meetings, school study groups, and sharing their lessons on social media or Facebook, internet sites, and others.

Teachers may share practices and materials with one another, alternating experiments and trials in their classrooms by seeking advice and reporting of their work with outside consultants who are project academic staff from universities. Teachers with common interests give each other the feedback and follow-up needed to change practices. Working with teachers who are trying to make similar changes in practice can also motivate teachers to change by helping them understand that others have faced problems and offering solutions others have discovered. They network teachers across schools, offering them access to outside expertise, particularly in their content areas (Lieberman & Grolnick, 1996; Pennell & Firestone, 1996). This outcome is in accordance with Erawan's (2008) result that the development of learning networks across schools will be greatly beneficial in stimulating original learning. Additionally, schools at different levels of development will be able to exchange information and help one another in the future.

In learning networks across schools, Lathapipat and Sondergaard (2015) mentioned that school networking would involve reorganizing classes and the structure of schools within the same area so they can share resources without consolidating schools. All stakeholders, including the MOE, local authorities, principals, teachers, and parents would work together to form a network and design the shared education programs. This approach offers the advantage of being less likely to meet resistance compared with school mergers, so it is more likely to be implemented. However, the networking process could take a longer time to implement and could fail as more

people become involved in the process.

7. Conclusions

Teacher professional learning is needed to help teachers learn and refine the instructional strategies required to teach these skills. It takes time and continuity of development for teachers to change their teaching behaviors in response to learners' needs. At the end of the teacher development process in the two schools of the HSEP, after four years, this research found the key principles of teacher learning that have been organized from teacher practices in school-based training programs: (1) implementing the approach in a way that uses the same principles that teachers are expected to use in their changed practice; (2) interactive learning through action with each other to share problems in actions and learn from the results of solutions experiment in their classroom; and (3) follow-up support and feedback provided by principals, peer teachers in school, and master teachers and experts from outside networks.

For policymakers, professional learning can have a powerful effect on teachers' skills and knowledge, as well as students' learning, if it is sustained over time, focuses on important content, and is embedded in the work of professional learning communities that support ongoing improvements in teachers' practices. When well-designed and implemented, professional development is an essential component of a comprehensive system of teaching and learning that supports students to develop the knowledge, skills, and competencies they need to thrive in the 21st century. However, many research findings showed "one-time" workshops have little long-term impact on how someone teaches. This research also confirms all approaches to professional development require a sustained commitment of time and resources.

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Authors' contributions

Dr. Prawit and Dr. Waraporn were responsible for study design, data collection, drafted the manuscript and revising. We read and approved the final manuscript. In this paragraph, also explain any special agreements concerning authorship, such as if authors contributed equally to the study.

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Appendix A

Focus Group Guidelines

According to Krueger (1994), I designed a sequential series of questions that get the group off to a good start, focus on key questions, and provide closure:

- -Introduce moderator and assistant researcher.
- -Note our topic is teacher learning and professional practices.
- -Explain how the results will be used to improve the teacher development system and approach to enhance professional teachers.
- -Discuss how there are no right or wrong answers, so they should feel free to share ideas and experiences.
- 1) Opening question:
 - -How long has your school been involved in the Healthy School Empowerment Project?
- 2) Introductory question:
 - -What would you like to tell me about being a part of the Healthy School Empowerment Project?
- 3) Transition question:
 - -How do you describe the teacher training in this project?
- 4) Key questions:
- (1) How did you improve teaching in your classroom?
- (2) How do you see this as impacting what you do in your classroom?
- (3) Who or what influences your improvement and in what ways have these role models influenced you?
- (4) How do you describe the feedback you have received from your principal, peer teachers, and teachers' networks?
- (5) Describe a positive experience during the teaching practice. What training strategies can you identify that you have applied satisfactorily in your teaching practice?
- 5) Ending question; Of all the things we discussed, how have you changed your thinking about yourself as a professional?

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