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Participatory Practice “Teach Less, Learn More”: A Case of Srikranuanwittayakom School

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Abstract

This research aimed to improve the quality of students in Srikranuanwittayakom School using the concept of *Teach Less, Learn More*. The method used in this study was Participatory Action Research, and there were twenty teachers voluntarily participating. The study had been done in two semesters of the academic year 2020. The three expectations from the development outcomes were: (1) the improvement under the identified indicators: a) teacher performance, b) organizing teaching activities and c) the students characteristic, (2) the researcher, the research participants, and the entire teaching staff learned from practice, and (3) the body of knowledge, which had been obtained from the practice as a foundation theory in this school context. The results of the study revealed three key features. Firstly, the average means of teacher performance, organization of teaching activities, and student characteristics after the 1st and after the 2nd cycles were higher than before the operation. Secondly, after adopting a participatory approach, researchers, co-researchers, and the entire teaching staff learned the importance and benefits of team collaboration. Lastly, the knowledge gained from the practice of this research consists of the ideas and strategies of the following concepts: 1) Expected change, 2) Driving factors for change, 3) Resistance to change and 4) Overcoming resistance drive change. The details of each issue can be used as a model for the students' quality development according to the concept of *Teach Less, Learn More* continuously. Moreover, the concept can be applied to other new conceptual developments.

Keywords: Teach Less, Learn More, Participation, Action Research

Introduction

The National Education Plan 2017 - 2036 defines that a key aim of national education is to focus on the assurance of educational opportunities and equality, employment, and job creation. Our education has been developed within the economic and social context of the country and the world that are driven by innovation and creativity, including dynamism to enable Thailand to overcome the trap of middle-income countries into developed countries. This concept is in line with the provisions of the Constitution of the Kingdom of Thailand National Education Act and national strategy, which aims to develop Thai society into a learning society focusing on creating cooperation to join forces towards sustainable national development under the philosophy of sufficiency economy. The goal is to develop every learner with the characteristics and learning skills of the 21st century. (Office of the Education Council Secretariat, 2017). The content taught should be excellent and skillful, aiming to develop the desired outcomes for the students in the future, such as having advanced thinking processes, being creative, innovative, flexible, and adaptive, having leadership and cross-cultural learning skills, and basic knowledge in various skills. (Hongkhuntot, 2016).

Over the past two decades, there have always been efforts to reform national education, but it is still not successful. In particular, the educational crisis of the new generation of Thais reveals that the learners' knowledge is under standard, and educational achievement is continuously low, as we can see in the results of the Ordinary National Educational Test (O-Net). Moreover, the Programmer for International Students Assessment test (PISA) results show that only 1% of Thai students have science knowledge at a high level. Despite spending more than 8 hours a day learning, 74% of Thai students are still illiterate. They can neither read, comprehend, interpret, nor use the language in other subjects (Thongroj, n.d.). The Education Index by Human Development Report 2011 (UNDP), which was used in the study by Rajpongsa (2016), showed the literacy ranks of 187 countries, which revealed that Thailand was at the 103rd and classified into the low level of human development country group. Whereas the other ASEAN countries, such as Singapore was at the 26th and Brunei was at the 33rd rank. They both are classified into the high level of human development countries. The index illustrated that Singapore had adopted the *Teach Less, Learn More* policy to achieve dramatic education development. The concept of *Teach Less, Learn More* (TLLM) is relevant to Thailand's national education management concept. It is based on the constructivist theory, which lessens the teaching roles in teachers and encourages independent learning roles in students. This educational management concept develops learners to be thinkers and grows knowledge of innovation and creativity to apply it in real life. Therefore, it focuses on efficiency in teaching and learning and preparing students for their living. It is the transition from quantitative educational management to qualitative education management and enables learners to learn effectively and acquire advanced thinking skills (Angkhanaphatkachorn, 2012).

Srikrananwittayakom School is located in Kranuan District, Khon Kaen Province. It is a high school for Mathayom Suksa 1 - 6 (Grades 7-12). There were 189 teachers and 2,653 students in the academic year 2020. The school's educational administration vision aims at a) developing the potential of learners with the knowledge, academic skills, life skills, professional skills according to the 21st-century characteristics, b) developing professional teachers and educational personnel, c) developing educational institutions curriculum and providing international standards education, and d) developing an integrated educational management system by coordinating cooperation between educational institutions, parents, communities, organizations and international networks. However, the school's Self-Assessment Report (SAR) revealed that the students needed to improve their skills in creative thinking, critical thinking, self-directing learning, communications, presentation, discussion, reasonable exchanging of knowledge, and appropriate problem solving (Planning Department of Srikrananwittayakom School, 2018).

In the words of Mr. Tharman Shanmugaratnam, Singapore's Minister of Education said, "The teacher is the heart of "Teach Less, Learn More" (TLLM). TLLM is not a call for "teacher to do less." It is a call to educators to teach better, engage our students, and prepare them for life rather than teaching for tests and examinations. This is why TLLM aims at the core of quality in education. It is about a richer interaction between teacher and student — about touching hearts and engaging minds." (Kagan, n.d.). Moreover, the analysis of 16 scholars' perspectives shows that "*Teach Less, Learn More*" means the implementation of the following 11 concepts: *Student-Centered Learning, Project Based Learning, Problem Based Learning, Learning by Doing, Self-Directing Learning, Learning by Constructivism Theory, Inquiry-Based Learning, Backward Design Learning, Higher Order of Bloom's taxonomy, Lifelong Learning Skills, and Professional Learning Community*.

The 11 concepts are a new paradigm of learning management for 21st-century education. Therefore, as the director of this school, the researcher was interested in improving the quality of students with the concept of "Teach Less, Learn More" by using Participatory Action Research (PAR). PAR is action research in which the researcher and the research participants are involved in working cooperatively and equally. The research method is altered from "on them" to "by them or for them" based on the process of Planning, Acting, Observing, and Reflecting in a spiral cycle movement with infinitely continuous operation. The focus is on the expected sustainable change caused by the commitment and participatory role at all stages.

Research objectives

This research aimed to improve the quality of students with the concept of *Teach Less, Learn More* in Srikrananwittayakom School. Three development outcomes were expected: (1) the improvement of identified

indicators: (a) the improvement under the identified indicators: a) teacher performance, b) organizing teaching activities and c) the students characteristic, (2) the researcher, the research participants, and the entire teaching staff learned from practice, and (3) the body of knowledge, which had been obtained from the practice as a foundation theory in this school context.

Literature Review

Understanding the theoretical concepts of “Teach less, Learn More” in Participatory Action Research is essential because the researcher must be knowledgeable and theoretical sensitive in the area that the study aims to develop. Therefore, theories can be applied to strengthen the thinking and practice of the research participants effectively. According to the idea that says, "Practice without theory is like a blind person. He cannot go any further, but he can only walk around the old corner.", the researcher, therefore, studied the theoretical concepts of “Teach Less, Learn More” from Aka (2015), Angkhanaphatkachorn (2012), Buachan (2014), Bus & Neuman (2009), Chalarak (2015), Hongkhuntod (2015), Meeraka (2017), Panich (2012), Prasertsan (2015), Predikul (2015), Pinitphuwadol, Niamhom & Rachapongsa (2016), Rodchuen (n.d.), Sukcharoen (2013), Teo, Deng, Lee, & Lim-Ratnam (2013), Turner, Petkong, Haohan & Mamak (2017), and Waichompoo & Jarachit (2012). The analysis of scholars' perspectives shows that "Teach Less, Learn More" means implementing the 11 concepts. The details are discussed below.

- 1) *Student-Centered Learning* This concept focuses on allowing students to build their knowledge and solve problems using thinking skills. The learners gain critical and rational thinking skills.
- 2) *Project Based Learning* It is a systematic work experience for students, like working in real life. The concept gives students direct experience in solving problems, obtaining actual knowledge rationally, experimenting and proving things themselves, and planning the work as a leader and follower.
- 3) *Problem-Based Learning* This concept uses problems to motivate students to make assumptions and determine the cause and mechanism of the problem. It includes researching basic knowledge related to the problem and solutions. It aims to encourage students to pursue knowledge to solve problems, make proper decisions, and learn to work as a team.
- 4) *Learning by Doing* The students can do things by themselves in the natural environment.
- 5) *Self-Directing Learning* It is a learning process where the learner initiates self-directed learning based on interests, needs, and aptitudes, acquiring learning resources. Learners can choose a learning method and assess their learning progress by themselves or in collaboration with others.
- 6) *Learning by Constructivism Theory* It is a learning process where students are self-enriched. The teacher is responsible for organizing students to enhance their intellectual structure by setting situations related to prior knowledge and leading to intellectual conflicts.
- 7) *Inquiry-Based Learning* It may come from thinking, study, experiment, research, or practice independently. The learners then analyze the obtained knowledge to generate new knowledge related to the existing knowledge, such as knowledge in the classroom, knowledge from various sources.
- 8) *Backward Design Learning* It is learning management that focuses on the desirable characteristics of the learners. Learning assessments are defined with methods, criteria, workloads, inventions, and pieces of work. The results demonstrate an understanding of the standard of learning. The learning is then designed to meet the expected learning outcomes. A learning experience is provided to obtain evidence that emphasizes a deep understanding of the work by allowing the learners to learn to create their knowledge.
- 9) *Higher-Order thinking skills of Bloom's taxonomy* It is classified into six levels, and all illustrate actions:
 - 1) Remembering –recognizing, listing, describing, identifying, retrieving, naming, locating, and finding
 - 2) Understanding - interpreting, summarizing, inferring, paraphrasing, classifying, comparing, explaining, and exemplifying
 - 3) Applying - implementing, carrying out, using, and executing,
 - 4) Analyzing - comparing, organizing, deconstructing, attributing, outlining, finding, structuring, and integrating,
 - 5) Evaluating - checking, hypothesizing, critiquing, experimenting, judging, testing, detecting, and monitoring, and
 - 6) Creating - designing, constructing, planning, producing, inventing, devising, and making.
- 10) *Lifelong Learning Skills* It is about knowing how to acquire knowledge without time limitations, leading to continuous personal development. The learners need to have lifelong learning skills:
 - 1) thinking skills consisting of analytical, synthetic, and critical thinking skills. Initiative and creative skills numeracy skills and problem-solving skills,
 - 2) learning skills consisting of information literacy skills, self-directed learning

skills, teamwork, human relations skills, and research skills; and 3) information and communication technology skills, consisting of information technology and communication skills.

- 11) *Professional Learning Community* It is a collaboration of teachers, administrators, and educators. It is based on the relationship culture with a shared vision, value, goal, and mission to achieve the quality of learning management that emphasizes the success or effectiveness of the learners.

Methodology

There are various scholarly views related to Participatory Action Research (PAR). These concepts share some standard features and express some differences. The researcher adopted the concepts created by Sanrattana (2018), which analyzed from the studies of Arhar, Holly, & Kasten (2001), Carr & Kemmis (1992), Coghlan & Brannick (2007), Creswell (2008), James, Milenkiewicz, & Bucknam (2008), Jantasuriyawong (1985), Kaewthep (1989), Kemmis & McTaggart (1992), McTaggart (1991), McTaggart (2010), and Mills (2007). The essential principle of PAR is bottom-up research, in which the researcher participated in the research with the research participants in a collaborative and equal manner. The researcher changes the role from being passive to active or participant. The research method is altered from "on them" to "by them or for them" based on the process of Planning, Acting, Observing, and Reflecting in a spiral cycle movement with infinitely continuous operation. The focus is on the expected sustainable change caused by the commitment and participatory role at all stages. However, there was a limit on the length of the graduate study program at the university; the researcher had set up two cycles, one cycle for each semester. In the 2020 academic year, 20 voluntary teachers were research participants, and 603 students were targeted for development. The details of each cycle are as follows.

Cycle 1

Step 1 Preparation This step consisted of 3 activities as described below.

- 1) The researcher clarified the research outline to the research participants to ensure their perception and understanding of the content and method of the research. Their understanding helped them decide to participate in the research voluntarily and willingly according to the code of conduct that said, "The researcher must demonstrate the nature of the research process from the outset including providing suggestions and benefits to the research participants."
- 2) The researcher and the research participants understand techniques for research such as planning, implementation, observation, recording, and research tool building.
- 3) Lesson learned process

Step 2 Planning This step consisted of 4 activities as follows:

- 1) The researcher conducted the brainstorming process based on basic knowledge and experience by asking questions, " How to develop the "Teach Less, Learn More" according to your existing knowledge and experience? What development approaches should be developed and how? ". Based on the principle that said, "The research participants are a stream of experiences with the knowledge and experience accumulated. They are not empty glass, but they have the potential and knowledge. "
- 2) The researcher presented the theoretical development path to the research participants, " What theoretical views do you want to suggest in order to develop the "Teach Less, Learn More? " It was based on the principle that said the researcher is an academic stream with theoretical knowledge and sensitivity in matters to be developed and to create positive attitudes to the research participants that theory and practice go hand in hand. They are not a parallel that never converges.
- 3) The researcher conducted brainstorming to converge streams of experience and academics to combine the development path determined by the research participants and the development trend from the theoretical point of view presented by the researcher. It was based on the principle that said, "Practice without theory is like a blind person. He cannot go any far, only walks around the old corner." The result of this activity was an action plan.
- 4) Lesson learned process.

Step 3 Acting This step aimed to achieve the results of the action plan set out in step 2. It was based on the principle of “Focus on change and actions to achieve results.” It consisted of 4 activities as follows.

- 1) Preparation of achievement evaluation forms for 3 phases: pre-practice, post-practice in cycle 1, and cycle 2
- 2) Evaluation of current condition (pre-practice in Cycle 1)
- 3) Implementation of the jointed action plan
- 4) Lesson learned process

Step 4 Observing This step used different types of research tools to collect information on the results of the operations at this stage.

Step 5 Reflecting The researchers used Kurt Lewin's Force-Field Analysis conceptual framework (Lunenburg & Ornstein, 2000). The analysis covered the following aspects: a) What are the current conditions?, b) What are the desired conditions?; c) What is the force for change? d) what are resistances to change? and e) What are suggestions to increase the force and to reduce the force resistance?. The findings were used for the force improvement in Cycle 2 operation.

Cycle 2

Step 6 Planning It consisted of 2 activities: 1) The researcher and the research participants jointly evaluated and created a new action plan after the revision of performance results from the cycle and 2) conducted the lesson transcription.

Step 7 Acting It consisted of 2 activities: 1) implementing the specified action plan and 2) lesson learned.

Step 8 Observing It was similar to Step 4, using different types of research tools to collect information on the results of the operations at this stage.

Step 9 Reflecting It adopted Kurt Lewin's concept of Force-Field Analysis which was similar to Step 5.

Step 10 Summarizing the performance results in Cycle 1 and Cycle2 It was implementing observations, interviews, audits, notes, assessments, and lessons learned from each step, including the results in step 5 and step 9. According to the objectives set, the researcher and the research participants met in the seminar to conclude the research results. *(See the illustration in the appendix)*

Research instruments

The researcher set the research tools according to the Mills conceptual framework (2007), which was classified into four groups: 1) Observation, 2) In-depth Interview and group interviews, 3) Examining / Record forms such as Journal, Maps, Audiotapes and Videotapes, Artifacts, Field Notes and 4) Evaluation form for the achievement of development.

The researcher and the collaborators played a role in collecting the data at every step using the tools mentioned above. The quantitative data were analyzed by using descriptive statistics, i.e., mean and standard deviation. Inferential statistics are not used because Participatory Action Research is context-specific. It is not experimental research that requires research results from a sample to a population. Qualitative data present events that occurred factually and neutrally of storytelling, supporting evidence including statistics, photographs, and documents.

Research Results

Do the results of the research change according to the given indicators?

The researcher and the research participants implemented an action plan called “*Teach Less, Learn More*”: 1 teacher for 1 innovation” (20 participating teachers, 20 innovations) as follows:

- 1) Enhancing the Learning Achievement of Mathayom Suksa 4 Students in Thai Language Course; *Niras Narin, The Poem* with The Innovation "HUGNA MODEL.
- 2) STEAM TO STAR to Develop Academic Achievement, Problem-Solving Skills, and Student Satisfaction in Basic Earth, Astronomy, and Space Course Mathayom Suksa 6 Students.
- 3) Organizing Learning Activities Using Jigsaw Techniques towards English Reading Skills of Mathayom Suksa 6 Students.
- 4) Development of English Speaking Ability of Mathayom Suksa 3 Students Using Role Play and Cooperative Learning.
- 5) The Teaching and Learning about the Surrounding Messages of Mathayom Suksa 1 Students Using A Community Base Through A Sustainable Natural Resource and Environmental Management System.
- 6) S.K.N.S. MODEL to Develop Essays in The Imaginary World of Mathayomsuksa 6 Students.
- 7) Development of Teaching Basic Mathematics in Mathayom Suksa 6 Using Math League Teaching Techniques.
- 8) Development of Mathematics Achievement in Elementary Calculus of Mathayom Suksa 6 Using IC MODEL.
- 9) The Development of Innovations in The Teaching and Learning of Mathematics: A Linear Permutation of All Different Objects for Mathayom Suksa 1 Students Using CP MODEL.
- 10) Use of Electronic Books (E-Book) to Promote Biology Class: Transcription and Code Translation for Mathayom Suksa 4 Students Using a Passive Learning Process.
- 11) Development of Critical Thinking Ability Using LIDA MODEL Learning Management in ASEAN Studies Courses for Mathayom Suksa 5 Students.
- 12) Development of Magic Vocabulary in English Mathayom Suksa 1 Students by the Teaching Language for Communication.
- 13) The Development of English Communication Skills of Mathayom Suksa 1/12 Students Using NID Model Concept and CLT Teaching Theory.
- 14) Management of Learning Using the 5G Model to Develop the Ability to Analyze the Principles of Building Thai Language Words of Mathayom Suksa 5 Students.
- 15) Development of a Cooperative Learning Activity Plan on The Development of Thai History During the National Reform Period for Mathayom Suksa 3 Students.
- 16) Organizing Biology Learning Activity on DNA of Mathayom Suksa 4 Students Using a Model-Based Model.
- 17) Development of a Problem-Based Biology Teaching Management Model in Conjunction with "TONG MODEL" for Mathayom Suksa 6 Students.
- 18) Cooperative Learning Development Operations Social Studies *North America Religion and Culture* in Mathayom Suksa 3 Students.
- 19) Biology Instructional Management Ecological of Mathayom Suksa 6 Students with A Predict Observe Explain (POE) Teaching Process.
- 20) Blended Learning Model to Promote Reading Comprehension Ability of Mathayom Suksa 4 Students.

After implementing the action plan mentioned above, the teacher performance level, the level of organization of teaching activities, and the student's characteristic level were evaluated in 3 phases: pre-practice Cycle 1, post-practice Cycles 1, and 2. The results of the analysis are discussed below.

1. Comparison of changes in the teacher performance levels in 3 phases: pre-practice Cycle 1 to post-practice Cycles 1 and 2.

The results of the teacher performance evaluation of 12 identified indicators from 81 participating teachers and school administrators showed that the indicated indicators were improved in every dimension. The comparison illustrated that the pre-practice mean was 2.91 while the means of post-practice in Cycle 1 and Cycle 2 were 4.50

and 4.73, respectively. It was noted that the overall values of Standard Deviation (S.D.) in 3 phases were not high: 0.55, 0.61, and 0.43, respectively, which means that the opinion of the informant was at low variance. The results of the data analysis are shown in Table 1.

Table 1: Comparison of changes in the teacher performance levels in 3 phases: pre-practice Cycle 1 to post-practice Cycles 1 and 2.

Indicators	pre-practice		post-practice Cycle 1		post-practice Cycle 2	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. The teacher uses the Student-Centered Learning concept	3.09	0.32	4.52	0.67	4.96	0.19
2. The teacher uses Project Based Learning concept	2.38	0.66	4.33	0.63	4.58	0.57
3. The teacher uses Problem Based Learning concept	3.06	0.24	4.16	0.80	4.43	0.57
4. the teacher uses the Learning by Doing concept	3.40	0.66	4.77	0.43	4.93	0.26
5. The teacher uses the Self-Directing Learning concept	3.15	0.39	4.31	0.74	4.46	0.53
6. The teacher uses the Learning by Constructivism Theory concept	3.22	0.47	4.36	0.68	4.58	0.52
7. The teacher uses the Inquiry-Based Learning concept	2.43	0.81	4.43	0.85	4.78	0.55
8. The teacher uses the Backward Design Learning concept	2.36	0.55	4.79	0.41	4.96	0.19
9. The teacher has Higher Order Thinking Skills of Bloom's taxonomy	2.38	0.70	4.65	0.50	4.84	0.40
10. The teacher has Lifelong Learning Skills	3.31	0.68	4.57	0.55	4.70	0.51
11. The teacher has Professional Learning Community	3.20	0.60	4.64	0.51	4.78	0.45
Overall	2.91	0.55	4.50	0.61	4.73	0.43

2. Comparison of changes in teaching activities organization levels in 3 phases: pre-practice Cycle 1 to post-practice Cycles 1 and 2.

The results of teaching activities organization evaluation of 20 identified indicators from 81 participating teachers and school administrators showed that the indicated indicators were improved in every dimension. The comparison illustrated that the pre-practice mean was 2.88 while post-practice in Cycle 1 and Cycle 2 were 4.64 and 4.95, respectively. It was noted that the overall values of Standard Deviation (S.D.) in 3 phases were not high: 0.55, 0.57, and 0.22, respectively, which means that the opinion of the informant was at low variance. The results of the data analysis are shown in Table 2.

Table 2: Comparison of changes in teaching activities organization levels in 3 phases: pre-practice Cycle 1 to post-practice Cycles 1 and 2.

	Indicators	pre-practice		post-practice Cycle 1		post-practice Cycle 2	
		\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1	The teacher has detailed knowledge	3.04	0.19	4.69	0.46	4.98	0.16
2	The teacher is enthusiastic about studying teaching and learning theories from books.	3.06	0.33	4.58	0.52	4.93	0.31
3	The teacher spends proper time explaining to students.	2.96	0.56	4.63	0.51	4.89	0.35
4	The teacher has consistent self-development.	3.05	0.27	4.64	0.48	4.95	0.22
5	The teacher makes a proper teaching plan before teaching.	2.75	0.96	4.70	0.46	4.95	0.22
6	The teacher provides questioning and consulting time to students.	3.07	0.38	4.60	0.66	4.96	0.19
7	The teacher maintains a proper image when being with co-workers and students.	3.16	0.56	4.64	0.48	4.98	0.16
8	The teacher has proper relationships with students and their parents.	2.83	0.61	4.72	0.45	4.98	0.16
9	The teacher keeps encouraging and putting effort into students' development.	3.06	0.76	4.72	0.45	4.93	0.26
10	The teacher prioritizes work and does the most important thing.	2.23	0.58	4.38	0.85	4.91	0.28
11	The teacher is confident and relaxed when giving a presentation.	2.83	0.61	4.62	0.77	4.96	0.19
12	The teacher can communicate well.	2.80	0.56	4.53	0.84	4.98	0.16
13	The teacher is always loyal.	2.83	0.61	4.73	0.45	4.88	0.33
14	The teacher pays attention when students interact.	3.00	0.47	4.44	0.84	4.94	0.24
15	The teacher spends time praising students.	3.07	0.38	4.64	0.66	4.91	0.28
16	The teacher is self-confident and can do every kind of work.	2.95	0.52	4.84	0.37	4.96	0.19
17	The teacher can confront any class situation.	2.26	0.65	4.78	0.42	4.90	0.30
18	The teacher is enthusiastic about a responsible job.	2.52	0.69	4.64	0.66	4.98	0.16
19	The teacher can control the class properly.	3.04	0.78	4.73	0.45	4.98	0.16
20	The teacher is creative and has leadership.	3.15	0.63	4.58	0.65	4.98	0.16
	Overall	2.88	0.55	4.64	0.57	4.95	0.22

3. Comparison of changes in students' characteristic levels in 3 phases: pre-practice Cycle 1 to post-practice Cycles 1 and 2.

Students' characteristic evaluation of 20 identified indicators from 603 participating students showed that the indicated indicators were improved in every dimension. The comparison illustrated that the pre-practice mean was 2.92 while post-practice in Cycle 1 and Cycle 2 were 4.36 and 4.54, respectively. It was noted that the overall values of Standard Deviation (S.D.) in 3 phases were not high: 0.77, 0.82, and 0.70, respectively, which means

that the opinion of the informant was at low variance. The results of the data analysis are shown in Table 3.

Table 3: Comparison of changes in students' characteristic levels in 3 phases: pre-practice Cycle 1 to post-practice Cycles 1 and 2.

Indicator	pre-practice		post-practice Cycle 1		post-practice Cycle 2	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. You have chances to talk to other students.	2.95	2.95	4.40	0.80	4.57	0.67
2. You have chances to talk to other students about the searching and examining methods	2.86	2.86	4.36	0.81	4.53	0.69
3. You can participate in exchanging ideas with others.	2.94	2.94	4.39	0.81	4.59	0.67
4. You can participate in learning with other students in class.	2.95	2.95	4.51	0.77	4.62	0.66
5. You search and collect data by yourself.	2.91	2.91	4.38	0.81	4.55	0.69
6. You search for the answers by yourself.	2.86	2.86	4.29	0.85	4.50	0.70
7. You express your ideas and opinions in class.	2.96	2.96	4.14	0.98	4.28	0.93
8. You practice and think inactivity practicing.	3.02	3.02	4.36	0.85	4.56	0.72
9. You do the activity with your ability happily.	2.97	2.97	4.35	0.85	4.55	0.72
10. You deeply understand how to be the better learner.	3.00	3.00	4.28	0.83	4.52	0.70
11. You interact with your peers as part of the classroom learning, receive help and support from classmates to complete assignments, and/or receive peer feedback to revise assignments.	2.93	2.93	4.47	0.73	4.61	0.60
12. You have the opportunity to demonstrate your work quality assessment while implementing and/or modifying guidelines when facing obstacles in achieving long-term goals.	2.87	2.87	4.34	0.80	4.46	0.72
13. You develop brain potential, including thinking, problem-solving, and applying knowledge.	2.85	2.85	4.31	0.79	4.49	0.69
14. You build knowledge and organize your own learning process.	2.82	2.82	4.33	0.83	4.53	0.71
15. You are involved in learning in terms of knowledge and interaction.	2.86	2.86	4.35	0.82	4.55	0.68
16. The students learn to share responsibility, work discipline. And share duties and responsibilities	2.92	2.92	4.52	0.74	4.56	0.67
17. The teacher organizes activities that create situations for students to read, speak, listen and think.	2.94	2.94	4.36	0.84	4.57	0.70
18. You have developed your thinking process skills to a higher level.	2.90	2.90	4.33	0.82	4.52	0.70
19. Teachers allow learners to maximize their participation in the learning process.	2.94	2.94	4.39	0.81	4.61	0.65
20. There are interactions between students and teachers and students and students.	2.95	2.95	4.40	0.85	4.62	0.70
Overall	2.92	0.77	4.36	0.82	4.54	0.70

What learning from practice aspects did research results generate?

The lessons learned process from each phase of the research revealed that the researcher and the research participants learned the difference in the efficiency of centralized working versus teamwork or cooperative work. We originally used to work alone. However, the research principle on teamwork encouraged everyone to participate and provided the opportunity to act. We realized that working as a team or working as a participant had improved our work. The teachers from other classrooms who were not research participants but had the opportunity to observe the teaching development process realized the importance of improving students' quality by *Teach Less, Learn More*, and bringing this concept into their practice.

What kind of body of knowledge from practices did research results generate?

Coghlan & Brannick (2007) and James, Milenkiewicz, & Bucknam (2008) suggested that Participatory Action Research is specific context research. Therefore, the body of knowledge from the practice in this research is mainly in the context of Srikrananwittayakom School. It cannot be a reference to other schools. However, the conclusion from lessons learned and reflections processes generated a body of knowledge which is correlated to Kurt Lewin's Force-Field Analysis conceptual framework: *Expected Change, Force for Change, Resistance to Change and Overcome Obstacles* as follows:

1. Expected Change

Expected Change found in the improvements under the identified indicators: 1) teacher performance (12 indicators), 2) organizing teaching activities (20 indicators), and 3) the students characteristic (20 indicators) as shown in Tables 1-3.

2. Force for Change

2.1 *The concept of development* in this research had been defined as a direction for the researcher and the research participants' collaboration as follows: 1) Everyone must be aware of and perceive the problems and goals of development, 2) Everyone must be involved in collecting and analyzing data to define options and choose best practices, 3) Everyone has to mobilize his / her potential to formulate a fully collaborative action plan, 4) Everyone must be creative in implementing the plan and 5) All performance results are required to be evaluated for continuous improvement.

2.2 *The strategy for development* in this research had been defined as a framework for the researcher and the research participants as follows: 1) Create a clear understanding of the goals, 2) Have a clear work goal, 3) Have a plan and follow it strictly, 4) Strengthen and support work with prudence, patience, and perseverance, 5) Encourage teamwork with care, determination and responsibility and 6) Establish a method for a performance review to evaluate and lead to further development.

2.3 This research established *the development path* as a driving force for highly significant change. It is an action plan called "*Teach Less, Learn More*": 1 teacher 1 innovation with 20 co-teachers and 20 innovations (please refer to the research results item 1).

3. Resistance to Change

Teach Less, Learn More concept itself was the resistance to change because it was a new educational paradigm for the 21st century. It focuses on student-centered learning or active learning. However, teachers, especially older teachers, were familiar with the 20th-century paradigm, such as teacher-centered learning or passive learning. Therefore, it was an evolution from the old paradigm to a new paradigm which was difficult because it depended on the existing attitude, thoughts, beliefs, and behaviors.

4. *Overcome Obstacles*

Even the transition from the old paradigm to the new paradigm was difficult. It was a challenging development to use in the researcher's leadership. Strengthening self-leadership using the concept of Teach Less, Learn More, the researcher focused on creating love and commitment in the profession. In addition, he needed to demonstrate a commitment in the expected direction, inspiration, encouragement, and positive motivation to raise awareness of new ideas that affect the students' quality.

Discussion

The research results generated the improvement of the identified indicators.

The results of the 3 cases evaluations: 1) the teacher performance (12 indicators), 2) the teaching activity organization (20 indicators), and 3) the students characteristic (20 indicators) showed that the overall mean in the post-practice Cycle 1 was higher than the pre-practice's means. Moreover, the post-practice mean in Cycle 2 was higher than in Cycle 1 (as detailed in Table 1-3). Obviously, the implementation of this research had resulted in a more remarkable change in the specified indicator at every stage. The reasons behind the results can be explained as follows:

- 1) It results from Participatory Action Research which focuses on democratic leadership where researchers and research participants share in a collaborative way. Everyone has an equal status in planning, acting, observing, and reflecting. It is consistent with the other research results adopting a similar research methodology. The examples of those studies are "The Development of Appropriate Digital Classroom at Chandawittayakhom General Buddhist Scripture School" by Suphakitcho, Sanrattana, & Namsiri (2018), "E-Learning Development for Professional Learning Community in Mahamakut Buddhist University, Isan Campus" by Thacha, Phrakrusutejariyawat, & Pongpinyo (2018), and "Development of a Learning School in Wat Srichan School, Khon Kaen Province" by Chanthago, Phrakrudhammapissamai & Jantaragaroon (2020). It illustrates that the use of Participatory Action Research, which focuses on democratic leadership, has a more significant effect on efficiency and productivity than authoritarian leadership. This is consistent with the view of famous leadership theorists such as Robert Tennenbaum, Warren Schmidt, Rensis Likert, and Ralph Stogdill, among others (Sanrattana, 2012).
- 2) It is the result of an action plan called "*Teach Less, Learn More: 1 teacher per 1 innovation*" (20 co-research teachers, 20 innovations). The researcher believed that it was a robust measure of changes. Each research participant followed the principle of participation in working as a team. and needed to adjust themselves to be more creative to produce innovation. The implementation of creative thinking skills affected improvement, which benefited students in many ways. Moreover, Vikas in The Concept School (2020) stated that, "*Increasingly, innovation in education at school is more than just a buzzword. It is fast becoming a way of learning and teaching for both students and teachers, respectively. Innovation in education encourages students and teachers to research, explore, and use all the tools to uncover something new. Innovation involves a different way of looking at problems and solving them. It also improves education because it compels students to use a higher level of thinking to solve complex problems. Innovation does not just mean using technology or new inventions, though these can contribute to innovation. Innovation involves a new way of thinking, thereby helping students develop their creativity and problem-solving skills.*"

The research results generated learning from practice

The lessons learned process from each phase of the research revealed that the researcher and the research participants learned the difference in the efficiency of centralized working versus teamwork or cooperative work. We originally used to work alone. However, the research principle on teamwork encouraged everyone to participate and provided the opportunity to act. We realized that working as a team or working as a participant had improved our work. The teachers from other classrooms who were not research participants but had the opportunity to observe the teaching development process realized the importance of improving students' quality by *Teach Less, Learn More*, and bringing this concept into their practice. This evidence confirms the importance of the word "Action" and "Learning by Doing" or "Phenomenon-based Learning" and "The benefits of having an example are

based on real phenomena." The famous quotes related to this concept are "*Well done is better than well said.*" - Benjamin Franklin, "*You do not write your life with words. . . You write it with actions. What you think is not important. It is only important what you do.*" Patrick Ness, "*A lot of people are all talk, what they say and what they do are two different things. As the saying goes, talk is cheap. Without actions behind the talk, it is all useless.*" Catherine Pulsifer, and "*If you talk about it, it's a dream, if you envision it, it's possible, but if you schedule it, it's real.*" Anthony Robbins. (Words of Wisdom website, n.d.). Therefore, the Participatory Action Research process (with collaborative action) results in learning the effectiveness of working as a team. It is valuable learning and beneficial and affect the change in thinking, attitudes, beliefs, and behaviors of individuals to develop other jobs. Teamwork has many benefits, for example, fosters creativity and learning, blends complementary strengths, builds trust, teaches conflict resolution skills, promotes a wider sense of ownership, and encourages healthy risk-taking." (Mattson, 2017)

The research results generated a body of knowledge from practice.

The research results generated the body of knowledge in the specific context of the Srikranuanwittayakom School, which correlated with Force-Field Analysis by Kurt Lewin. It is a body of knowledge that is consistent with the objectives of Participatory Action Research because this kind of research "*focuses on change and aims to achieve action*" (Sanrattana, 2018). Therefore, action to achieve must take into account at least four components of change management: expected change, the force for change, resistance to change and overcome obstacles.

The knowledge gained from research in these 4 components is the starting point for improving the quality of students with the concept of *Teach Less, Learn More* for better change in the future. James (1964) stated that "Change is not an event, it's a process." Furthermore, the nature of action research is the continuous development of the spiral drill circuit of planning, practice, observation, and reflection. In addition, the nature of the educational administration in schools is never-ending because there are always new students come to study. Therefore, Srikranuanwittayakom School should take the knowledge gained from this research as a starting lesson to enhance students' quality development with the concept of *Teach Less, Learn More*. At the same time, school teachers should be aware of the importance of change. As we can see in the quotes by famous people such as "*To improve is to change; to be perfect is to change often.*" - Winston Churchill, "*It's only after you've stepped outside your comfort zone that you begin to change, grow, and transform.*" - Roy T. Bennett, "*Change will not come if we wait for some other person, or if we wait for some other time. We are the ones we've been waiting for. We are the change that we seek.*" - Barack Obama, "*If we don't change, we don't grow. If we don't grow, we aren't really living.*" - Gail Sheehy, "*Not everything that is faced can be changed, but nothing can be changed until it is faced.*" - James Baldwin, "*Progress is impossible without change, and those who cannot change their minds cannot change anything.*" George Bernard Shaw, "*Nothing happens unless something is moved.*" - Albert Einstein, and "*If you don't like something, change it. If you can't change it, change your attitude.*" Maya Angelou. (Lagacé, 2021)

Nevertheless, several other challenging issues should be addressed for change in Participatory Action Research. Nowadays, there are many new paradigms for the 21st century, i.e., research-driven, web-driven, global classroom, multiple literacies of the 21st century, and outcome-based learning (Sanrattana, 2013). There are also many skills for teachers such as 1) critical thinking, collaboration, communication, and creativity, 2) information, media, and technology literacy, 3) flexibility, leadership, initiative, productivity, and social skills and 4) connectivity, emotional intelligence, and self-responsibility (Haranaka, 2018). There are also other skills for 21st-century students: 1) creativity and innovation, 2) collaboration and communication, 3) critical thinking & problem solving, 4) global citizens, 5) technology literacy, and 6) lifelong learners (Jones, 2013)

Recommendations

The results of this research are the specific context of the Srikranuanwittayakom School. Therefore, the research recommendations are focused on the application of this school in particular. The learning experience and knowledge gained from this research are used as lessons to further enhance students' quality development with the concept of *Teach Less, Learn More* every academic year. The school should always be aware of the statements

about the nature of change mentioned above. Mr. Tharman Shanmugaratnam, Singapore's Minister of Education who initiated the concept of *Teach Less, Learn More*, stated that "The teacher is the heart of "Teach Less, Learn More" (TLLM). TLLM is not a call for "teacher to do less." It is a call to educators to teach better, engage our students, and prepare them for life rather than teaching for tests and examinations. This is why TLLM really goes to the core of quality in education. It is about a richer interaction between teacher and student — about touching hearts and engaging minds." (Kagan, n.d.) At the same time, it is essential to consider introducing new ideas such as the new paradigm of education for the 21st century, skills for teachers and skills for 21st-century students, and Participatory Action Research to transform schools. However, other schools can then use the findings of this research as a model or as a case study for their development. Coghlan & Brannick (2007) and James, Milenkiewicz, & Bucknam (2008) stated that, "...despite its limited reference and publication, the ideas of participatory action research are applicable for different contexts to generate similar patterns of results...."

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Appendix

Photo of an academic seminar for presenting results and summarizing the research results in the 10th step, which is the final stage of the research.

