

Full Length Research Paper

Coaching and mentoring model based on teachers' professional development for enhancing their teaching competency in schools (Thailand) using video tape

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The study aims to develop coaching and mentoring model, study the usage findings in the model and to evaluate the activity management in the model by surveying 100 participant teachers' opinion, under jurisdiction of the office of Mah Sarakham Primary Educational Service Area 1, Thailand. The model consisted of 3 steps and 4 phases including planning, process for development consisted of 4 phases including: training for coaching and mentoring (C&M), sharing and learning together, coaching and mentoring. In Phase 1, half of the teachers obtained comprehensive content, while in Phase 2, the teachers still lacked confidence in constructing the C&M system as well as professional learning community (PLC). They had anxiety in constructing the video and wanted to develop this skill. In phase 3 after follow up, the teachers had higher confidence. They had good attitude towards the construction for PLC, and were able to make plan in applying the C&M system in the classroom. In addition, they were train on how to use the program. The teachers shared their teaching experience as well as showed group leadership skills and shared value and vision in developing their teaching competency. Phase 4 found that there was propriety in teachers' teaching competency in all of 4 dimensions including the classroom management, the knowledge, the teaching method, and the diagnosis.

Key words: Teacher development, coaching and mentoring, video tape, teaching competency, professional learning community.

INTRODUCTION

In this study, one can picture a large classroom where a teacher is standing in front of the class, asking the students to take their notes or memorize what is been said by the teacher. As the class is in section, the teacher looks around to see what the students are doing by asking them questions. These competencies of teachers

could reflect their beliefs in educational management based on positivism paradigm by viewing the world as dualism, reduction and mechanistic. As a result, the students' knowledge depends on their competency in perceiving and competing for knowledge received from their teacher. Therefore, the teacher focused on

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transferring knowledge in form teacher-centered, with the aim of developing mind-body and analytical thinking, in order to accomplish the goal of learning achievement or students' academic performance which was not congruent with their livelihood, as well as the outside world (Wang, 2012). Whereas in present the students had to be faced with academic changes and growth of instrument for information communication and technology. Consequently, there was an increase of discovered and constructed information as twice as much as the exponential (Soottipon, 2010). The study saw the image of classroom with students who express their negotiated opinion or asking questions. This was due to the facts that students could get information from the internet.

The paradigm of the 21st century should be changed from the process in knowledge transferring from the top to the bottom (top-down), into the instructional process for intensive learning as well as true association or mastery learning, being able to learn the unclear and complex things with many dimensions, which could be seen in various dimensions, and obtaining the shared conclusions or co-construction of knowledge, being able to apply the knowledge and practice one's lifestyle and work. The teachers' teaching competency included the capability of incorporating the students with instructional management. This was supported by the individual student's aptitude, motivation, former experience as well as thought and social environmental which was a powerful learning process as the bottom-up (National Brain Bank, 2013).

Therefore, the teacher need to search for innovation for developing relevant paradigm in enhancing the collaborative paradigm (Heron and Reason, 1997; Deakin-Crick, 2010) It was the powerful shared learning among the advancement and growth in information communication and technology. As a result, the information could be accessed quickly. According to the studies of Anghel and Voicu (2013) Wang (2012) and Vogt and Rogalla (2009) found that the teacher development based on coaching and mentoring could cause the teachers and students' changing and learning, creativity, critical thinking, critical curiosity, meaningful work for children, obtaining the strategic awareness, creating one's learning relationship and resilience and obtaining the adaptive teaching competency. Consequently, the teacher development for constructing the professional teachers based on the approach of coaching and mentoring was a technique used by the teacher.

In 2013 budget year, the office of basic education commission, ministry of education, Thailand specified the development policy for teachers and educational staffs based on their capability to be good teachers with quality and virtue. So, the teachers' development projects focus on the construction for strength of instructional management competency in various contexts by using the coaching and mentoring. Moreover, there was a design for promotion system by the coaching and mentoring with emphasis on development for enhancing

the teachers' spirit, mind, and ideal. It also focused on the students ability to obtain knowledge in reading literacy, numeracy literacy, and reasoning ability which was based on collaboration among higher education institutes, the educational service area, and schools to cooperate in constructing the learning community for sustainable development through the collaboration between the faculty of education, Mahasarakham university, and the office of Mahasarakham educational service area 1.

Purposes of study

1. To develop the model of teachers' teaching competency based on coaching and mentoring by using the video tape for enhancing the teachers' teaching competency in schools.
2. To study the usage findings in the model of teachers' teaching competency based on coaching and mentoring by using the video tape for enhancing the teachers' teaching competency in schools
3. To evaluate the activity management in developing the model of teachers' teaching competency based on coaching and mentoring by using the video tape for enhancing the teachers' teaching competency in schools

METHODOLOGY

Research design

There were 3 steps of development and 4 phases of implementation. In each step and phase, the activities for development were specified as follows:

1. Planning step: This is the step of preparation for development.
2. Process for development consisted of 4 phases including:

Phase 1 training for coaching and mentoring: This phase aimed to develop the teachers' knowledge and comprehension in necessary content for developing the teachers' teaching competency by using the video-viewing through four learning units of content: coaching and mentoring, and construction of professional learning communities; teaching technique/method focusing on student-centered; literacy, numeracy and reasoning ability; development of video-coaching.

Phase 2 sharing and learning together: This phase aimed to construct the professional learning community (PLC) in schools for sharing the problem situation as well as developing the teachers' teaching competency in schools, searching for and presenting the video tape of teaching as video-modeling of school teachers by the university professors and educational supervisors of the educational service area joining in PLC for sharing.

Phase 3 coaching and mentoring: This phase aimed to follow up the coaching and mentoring process for developing the teachers' teaching competency in schools through the design and production of or video-coaching from supervision as well as following up by the university professors and supervisors from the office of educational service area.

Phase 4 showcase: This phase aimed to prepare the stage for

Table 1. Data processing and analysis.

Activities	Objectives	Instrument/statistical values	Indicators
Phase 1: Training for coaching and mentoring	Evaluation of teacher's training achievement	-After training evaluation -Analysis of mean and standard deviation	Achievement of teacher's training
Phase 2: Sharing and learning together	Study of teacher's opinion in knowledge application	-Structured interview -Interview and descriptive presentation	Teachers obtained knowledge, comprehension, and competency in applying their training knowledge
Phase 3: Coaching and mentoring	Supervision and following up the teacher's teaching competency development	-Evaluation form of PLC construction analysis of the mean and standard deviation	The practice was in "High" level.
Phase 4: Showcase	Evaluation of teacher's teaching competency -Program evaluation	-Teacher's teaching competency evaluation -Performance evaluation -Program evaluation -Recording and deciphering the lesson by Content Analysis and presented in Descriptive Analysis, Mean, and Standard Deviation.	-Teachers had improved teaching competency -The findings of presentation and deciphering the lesson reflected the development of teaching competency and students' quality -The activity management was appropriate

presenting the finding of development for students' quality in literacy, numeracy, and reasoning abilities as well as the teachers' presentation by video-coaching.

Conclusions and reflection was the last step of conference for concluding findings and reflecting the development findings of teamwork between university professors, and supervisors from the educational service area.

Data collection and analysis

In data collection and analysis of teachers' teaching competency, instrument according to the phase of activity management, and the conducted by data system, coding, and analysis of qualitative data by content analysis as well as quantitative data by computer program in social science for calculating the statistic were implemented. The details were shown in Table 1.

Data obtained from the evaluation form and the 5 level rating scale were analyzed by using the following criteria: The mean values between 4.50 to 5.00 referred to the appropriateness/practice was in "the highest" level, between 3.50 to 4.49 referred to "high" level, between 2.50 to 3.49 referred to "moderate" level, between 1.50 to 2.49 referred to "low" level, and between 1.00 to 1.49 referred to "the lowest" level.

RESULTS AND DISCUSSIONS

The model consisted of 3 steps and 4 phases including planning, process for development consisted of 4 phases including: training for coaching and mentoring (C&M), sharing and learning together, coaching and mentoring,

and showcase, and conclusion and reflection (Figure 1). The usage findings in the model found that:

Phase 1 training for coaching and mentoring: According to the testing for achievement evaluation by after training test from 15 points full score of 100 participants, found that the mean value was = 8.14 or 54.26%.

Phase 2 sharing and learning together: According to the study of participant teachers' opinion, the study found that there was a lack of confidence for developing the coaching and mentoring system and the development of professional learning community (PLC), since they understood that it was a project which focused on video tape construction because they lacked the skill of ICT use, and wanted to participate in the training in order to develop this skill. In the teaching competency development, the study found that they obtained knowledge in instructional management emphasizing on student-centered. After following up by the university professors and supervisors, the study found that the teachers had higher confidence as well as positive attitude towards practice. They had good attitude towards the development of teachers' learning community as well as being able to use the coaching and mentoring in schools.

Phase 3 coaching and mentoring: According to the following and evaluation of development in PLC in

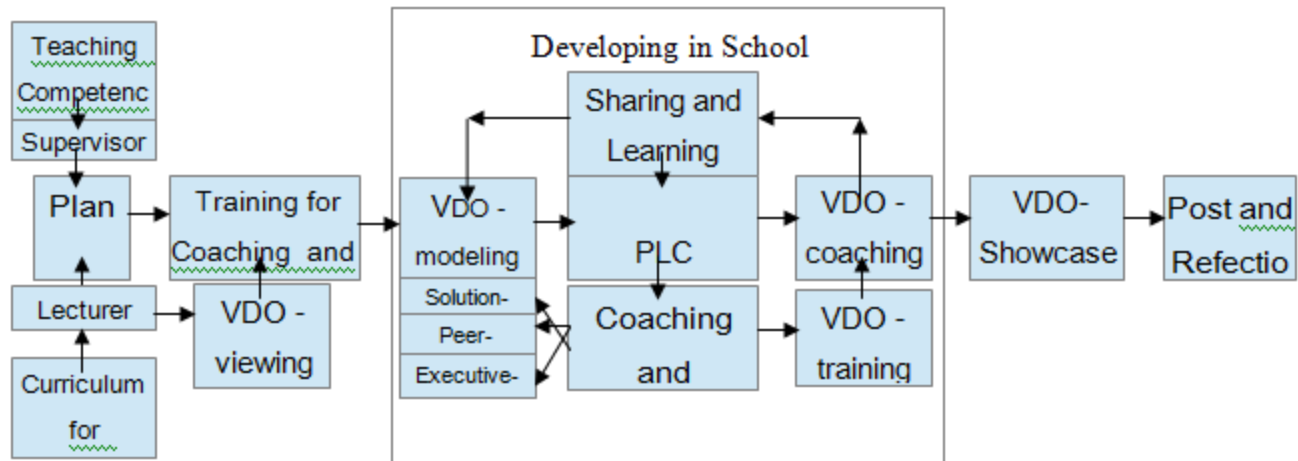


Figure 1. The model of coaching and mentoring based on teaching professional development by using the video for enhancing teacher's teaching competency in schools

schools, the study found that the participant teachers' overall practice was in "high" level. Considering each aspect, the study found that the practice was in "high" level in every aspect especially in teaching experience sharing. The second order included the group leadership, and the shared value and vision in schools. The details are shown in Table 2.

Phase 4 showcase: The findings of teachers' teaching competency evaluation according to the teachers' teaching competency evaluation, found that in average, the propriety was in "the highest" level in all of 4 dimensions including the classroom management, the knowledge, the teaching method, and the diagnosis respectively. The details are shown in Table 3. From the finding analysis from the presentation in phase 4, the researcher presented the finding analysis in teaching methods from 63 work pieces of video tape, the teacher's teaching competency could be classified into the cooperative teaching for 49.21%. The second order included the integration of learning substance for 41.27%, and the work project based teaching for 34.92% respectively. The details are shown in Table 4. The analytic findings of students' quality development from video tape from 36 work pieces, found that the video tape could be classified into the competency development in scientific literary for 45 work pieces or 71.42%. The second order was the reading literary for 40 work pieces or 33.33%. The details are shown in Table 5.

In overall, the propriety of activity management was in "high" level. Considering each item, the study found that the propriety of activity management was in "high" level in every aspect. Furthermore, it was viewed that the activity management was practical since one could obtained better knowledge in new instructional management techniques. The propriety of place for activity management,

the overall activity of project management from phase 1 to phase 4 was appropriate in "high" level as shown in Table 6.

Conclusion

The model consisted of 3 steps and 4 phases including: planning, process for development consisted of 4 phases including: training for coaching and mentoring (C&M), sharing and learning together, coaching and mentoring, and showcase, and conclusion and reflection. The model aims to enhance the school teachers' teaching competency. The details of implementation were as follows:

In Phase 1, from the testing in achieving evaluation through posttest after the training, out of 15 points full score from 100 training participants, the study found that their mean value was 8.14 out of 15 points full score or 54.26%. It indicated that the 2 days training session for developing one's knowledge and comprehension as well as skill development in ICT usage especially the skill in developing the video tape for coaching, wasn't sufficient. The University instructors and supervisors had to follow up for developing ones' knowledge, comprehension, and confidence. Moreover, the training for skill in video tape usage and production should be provided.

In Phase 2 to 3, according to the study of teachers' opinion in schools that participated in the project, the study found that the schools lacked confidence in building the coaching and mentoring, with the construction of PLC since they understood that it was the project emphasizing on the video tape construction. Consequently, they were anxious in video tape construction because they lacked ICT skill. They also needed to attend the training in developing this skill. For the training competency

Table 2. The evaluative findings of construction for teacher's learning community (PLC).

Evaluation List	Mean	Meaning
Supportive and shared leadership		
The administrators used the democracy and participation	3.9	High
Decentralization and empowerment	3.91	High
Allowance for one's right in decision making and promotion for team leading	3.77	High
Mean	3.86	High
Shared values and vision		
Collaborative opinion expression for instructional development	3.77	High
Collaborative determination of practice guidelines for instructional development	3.61	High
Mean	3.69	High
Collaborative learning and application of learning		
Collaborative experience sharing in instructional management	3.61	High
Collaborative planning for problem solving and instructional development	3.55	High
Collaborative searching for knowledge, skill, and strategy in problem solving and practice	3.71	High
Mean	3.62	High
Shared personal practice		
Participation in sharing by classroom visiting and teaching observation	3.91	High
Expressing one's opinion and recommendation for improving one's teaching and working.	3.98	High
Mean	3.94	High
Supportive environmental conditions		
The collegial relationship maintenance through the recognition, respect and sincerity	3.53	High
Using positive psychology, paying attention to relationship among the students, teachers, and administrators	3.34	Moderate
Physical environmental condition for enhancing one's learning by working	3.40	Moderate
Mean	3.42	Moderate
Overall mean	3.65	High

development, the study found that they had knowledge and competency in instructional development of student-centered in "moderate" level. After the follow up by the University professors and supervisors, the study found that the teachers obtained higher confidence as well as positive attitude in practice. They had good attitude towards the construction of teachers' learning community as well as competency in planning for applying the coaching system and counseling in classroom. Besides, the training schedule for program use in video tape arrangement was specified for teachers who needed it.

Furthermore, according to the following up and evaluation of teachers' PLC in schools, Phase 3, found that the participant teachers had overall practice in "high" level especially in the sharing for teaching experience, and the shared value and vision in developing one's teaching competency. As a result, there was development in both student and teacher. Vescio et al. (2008) conclude that PLC application caused powerful development as

well as major strategy for developing the teachers' teaching competency and students' quality in schools.

In phase 4 according to the evaluation of teachers' teaching competency in schools, it found that in average it consisted of propriety in "the highest" level in all of 4 dimensions including the classroom management, the knowledge, the teaching method, and the diagnosis respectively. In addition, according to the presentation performance analysis from 63 work pieces of video tape presentation, the study found that the video tape reflected the teachers' teaching competency in teaching the cooperative group most. The second order included the integrative teaching in learning substance, and project based teaching, and the reflection of students' quality in scientific literacy for 71.42%. The second order included the reading literacy for 63.49%, and the mathematical literacy for 33.33% which indicated that the teachers attempted to create performance with students in satisfactory level. It could be seen from the presented

Table 3. The evaluative findings of four dimensions in teacher's teaching competency evaluation.

Evaluation list	Mean	Meaning
Subject knowledge: Be competent in teaching content material and following up the learning process		
Thai language	4.50	Highest
Mathematics	4.40	High
Science	4.90	Highest
Social Studies, Religion, and Culture.	4.60	Highest
Foreign languages	5.00	Highest
Mean	4.68	Highest
Diagnosis: Be competent in knowledge management, adjustment for instructional process to be appropriate with curriculum and context		
Establish the systematic lesson plan	4.64	Highest
The learning activity management was congruent with context of program, objective, content, and students	4.64	Highest
The various learning management s were appropriate with the program, objective, content, and students	4.62	Highest
Mean	4.63	Highest
Teaching methods: Competency in learning process management as student-centered		
Learning activity management focusing on real and lively practice for students to be able to think and solve the problem	4.66	Highest
Learning activity management to be selected by the students according to their ability and interest	4.60	Highest
Using various learning media, educational innovation and technology, and learning sources	4.77	Highest
Mean value	4.67	Highest
Classroom management: Be competent in learning climate management and creation		
Learning management or encouragement for students to express their opinion, discuss, and responding related to learning	4.72	Highest
Learning management for students to work together	4.79	Highest
Establish the corner for experience, learning source, and media facilitating the students' learning	4.75	Highest
Activity management for students to learn happily	4.75	Highest
Mean	4.75	Highest
Overall mean	4.86	-

Table 4. Classification of video tape based on the instructional method/technique of student-centered.

Method/Technique	Number	Percentage (%)
Work project based	22	34.92
Problem based	14	22.22
Research based	2	3.18
Integration	18	28.57
Cooperative group	31	49.21
Brainstorming	21	33.33
Discovery	6	9.52
Inquiry	3	4.76
Integration of learning substance	26	41.27
Others	2	3.18

work pieces that activity management that could be able to develop one's teaching competency Avalos (2011).

Table 5. Classification of video tape for students' quality development based on competency.

Competency	Number	Percentage (%)
Reading	40	63.49
Calculation	21	33.33
Reasoning	45	71.42

Table 6. The evaluative findings in four phases of activity management.

List	Mean	Meaning
Learning management was practical	4.31	high
Obtaining knowledge in new instructional management techniques	4.25	High
Opportunity in expressing one's opinion, discussion and asking	3.95	High
Supplementary document for activity management	3.84	High
Snack and drink	4.19	High
Propriety of activity management place	4.24	High
Propriety of instructional management session	4.07	High
Overall activity of program management from Phase 1 to Phase 4	4.19	High
Mean	4.13	High

RECOMMENDATIONS

According to the usage model for developing the teacher's teaching competency, the following recommendation were made:

1. The training for providing knowledge wasn't sufficient. The process of following up and recommendations similar to the implementation in this activity, were necessary.
2. The teachers lacked skills in using the ICT especially the technique for video arrangement. They believed that their students lacked competency in ICT usage as well. The teachers' attitude toward ICT usage should be developed. The teachers and students' confidence in shared learning should be developed. In addition, the teachers and students' training for developing their competency in ICT usage should be provided.
3. The collaborative research studies by university professors and supervisors for developing the learning network should be conducted. Furthermore, the construction of teachers' work coaching and mentoring system, should be followed up for developing the sustainability continuously.

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Conflict of Interests

The authors have not declared any conflicts of interest.

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