

The Development to Teacher Competency on Learning Management in the 21ST Century: A case of Ban Natan khamkha School

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Abstract

The purposes of this research were to: 1) examine the components of teacher competency on learning management in the 21st century at Ban Natan Khamkha School, 2) investigate the problems and needs for developing teacher competency on learning management in the 21st century at Ban Natan Khamkha School, 3) establish the guidelines for teacher competency development on learning management in the 21st century at Ban Natan Khamkha School, and 4) examine the effects after the implementation. The co-researchers consisted of a researcher, 21 co-researchers, and seven informants. The research employed the two-spiral participatory action research with four steps, including Diagnose, Act, Measure, and Reflect. The research tools included a needs assessment questionnaire, evaluation forms, observation forms, and interview forms.

The findings were as follows:

1. The teacher competency on learning management in the 21st century in a case of Ban Natan Khamkha School consisted of ten components with 44 indicators: 1) Communication skills with three indicators, 2) Learner-centred instruction methods with five indicators, 3) Research for developing learners with three indicators, 4) Teacher leadership with five indicators, 5) Code of morals and ethics of profession with six indicators, 6) Utilization of innovations and information technology for learning management with five indicators, 7) Development of integrated curriculum with two indicators, 8) Thinking skills with five indicators, 9) Teamwork and mutual knowledge sharing with seven indicators, and 10) Measurement and evaluation for learner development with three indicators

2 The problems and needs for developing teacher competency on learning management in the 21st century in Ban Natan Khamkha School revealed as follows: 1) lacking communication skills, 2) limited knowledge and understanding about learner-centred learning management, 3) insufficient knowledge and understanding in conducting research for learner development, 4) inadequate teacher leadership, 5) limited professional moral and ethical development, 6) insufficient skills in utilizing innovations and information technology for learning management, 7) knowledge and understanding in integrated curriculum development, 8) lacking thinking skill development, 9) teamwork and knowledge sharing improvement, and 10) knowledge and understanding on measurement and evaluation for learner development.

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3.The guidelines for developing teacher competency on learning management in the 21st century at Ban Natan Khamkha School were selected by the researcher and co-researchers within an agreed set of ten projects with 20 activities.

4. The results after teacher competency development for learning in the 21st Century revealed that:

4.1 Evaluation results of teacher competency on learning management in the 21st century in a case of Ban Natan Khamkha School with ten components and 44 indicators presented that after the two-spiral implementation, the overall mean score of the school projects was at a high level. In the first spiral, teacher competency was at a moderate level with the components needing improvement consisting of: Component 3-Research for Developing Learners, and Component 4-Teacher Leadership. The second spiral was thus conducted and indicated that the two components achieved at good and very good levels with the progress percentage of 86.35 and 87.41, respectively.

4.2 The co-researchers and key informants reflected that teachers developed their awareness about the importance of teacher competency development on learning management in the 21st century. In addition, teachers improved by developing self professionally. The hope was to pave the way toward enhanced the 21st-century teacher skills and, in turn, develop good learners for the society.

Keywords: Teacher Competency, Learning Management

1. Introduction

Education is a key part of human and society development and recognized as a tool to develop human's desirable characteristics to meet the needs of society. Because of the rapid changing reality, existing educational goals in the light of society's needs is rational. Like many countries around the world, Thailand is faced with the complexity and fast changes of technological advancement influencing education process and has been embraced a concept of teaching and learning skill for the 21st century, which is a set of competencies for education, workforce, or life.

To face the challenges, Thai educational reform must be proceeded by supporting learning reform among teachers and learners to begin producing quality manpower to meet the needs of society and contexts effectively, as so called the post-knowledge-based society concentrating for the 21st century education management. Thus, a paradigm shift from conventional knowledge to integrated knowledge could be more adequately brought in for human resource development. The process of paradigm shift should therefore involve flexibility, and creativity to keep pace with the fast growth of global changes with the hope for human development, and to create a new set of frameworks under the real-world challenges which influences growth in society, economy, science, technology, and politics of all countries.

Advanced information technology has accelerated the rise of borderless world in the past decade and led to significant changes in not only what is taught, but also how it is taught and assessed. An acquisition of traditional knowledge and skills by memorizing contents from core subjects, namely mathematics, science, language arts, social studies are the learning process through lectures adhering to textbooks and books which has been a common practice in Thailand. Teachers are as learning resources and students take notes and reproduce the information for academic excellence, which is called teacher-centred approach.

However, technology has been employed for presenting contents for students which is still a part of teacher centred teaching approach which is insufficient to equip students for life the 21st century. There are also moral issues which are relevant for a social profession underpinned by many views on aims for practice- calls for consensus in professional preparation (Prapada Khonkong, 2017; Chatchai Vangmejongmee, 2017). Supporting teachers' professional learning is to enhance teachers to be effective in supporting the learning of students in specific contexts. In addition, knowledge about teaching is developed by teachers and reflecting on their practices in professional learning development (European Commission, 2013, p.34). Consequently, the question of teachers' competences needs to be set to ensure that teachers have the competences they require to develop the capacity to cope with change and improve effective learning management.

Ban Natan Khamkha School is a primary school under the Primary Educational Service Area Office 1 offering three levels of education, including early childhood, primary, and lower secondary. According to the plan development of Ban Natan Khamkha School (2020, pp. 42-50), school vision highlights on supporting and promoting learning to foster students' morals, knowledge development, and becoming critical thinkers based on the principles of sufficiency economy with the school slogan of "academic excellence, athletic excellence, moral focus, leading to improved community. The school goal orientation for student identity development concentrates on the values that "the younger students paying respect to seniors to preserve the sense of national culture" meaning student should demonstrate behaviours and balance their better living for self and society. The desirable characteristics involves preservation of Thai culture,

nations and ways of life based on principles of sufficiency economy and being able to apply certain concepts learned in daily life. The other unique character of the school is “preservation and conversation on nature resources and school botanical garden” to cultivate students’ consciousness in preserving natural resources, school environment, individual homes, and community, and to follow the Plant Genetic Conservation Project under the Royal Initiation of Her Royal Highness Princess Maha Chakri Sirindhorn aiming for promoting understanding and awareness of plant genetic conservation through learning management. School administrators and teachers show commitment to develop teacher competency for improving learning management to keep pace with the global changes in the 21st century.

The researcher as school administrator intended to develop teacher competency on learning management in the 21st century using the participatory action research. All teachers and personnel in schools took part in designing, examining school conditions and problems, working collaboratively, brainstorming, planning, operating tasks, as well as providing reflection on task performance. The designed research process is important for teacher development in terms of quality and goal achievement in line with standards and a context of educational management and administration of Ban Natan Khamkha School under the Sakon Nakhon Primary Educational Service Area Office 1.

2. Objectives

The purposes of this research were:

1. To examine components of teacher competency on learning management in the 21st century of Ban Natan Khamkha School;
2. To investigate the problems and needs for developing teacher competency on learning management in the 21st century of Ban Natan Khamkha School;
3. To establish the guidelines for teacher competency development on learning management in the 21st century of Ban Natan Khamkha School;
4. To study the effects of teacher competency development on learning management for the 21st century of Ban Natan Khamkha School.

3. Literature Review

Learning management for Thai education development in the 21st century.

The framework of learning management in the 21st century is designed to integrate body of knowledge in specific skills, expertise, and knowledge literacy in various aspects to support student success in balancing study, career, and life (Bellanca & Brandt, 2011; Worapoj Wongrungreoungkit and Athip Jittarek, 2011, pp. 114–115; MOE, 2008; Wijarn Panich, 2012, pp. 1–25). The framework of learning management in the 21st century is developed with input from stakeholders and established agreed sets of goals to adjust teaching and learning process to mutual learning process with teachers and students concentrating on “the importance of learning process rather than knowledge” and “the importance of finding/developing useful answer process rather than finding answers”, and using the learning management on thinking skills in the 21st century (Partnership for 21st Century Learning, 2015).

Teacher competency on learning management in the 21st century.

Competency refers to an underlying characteristic of a person that leads to effective or outstanding job performance (Spencer & Spencer, 1993, p. 112). In addition, Narongwit Santhong (2014, p.48) adopted a term of competency as “underlying behavioural characteristic of personnel in organizations that is related to superior performance in a job in various situations than fellow co-workers”. In other words,

competency could be defined as basic characteristics of an individual that could predict the superior performance in a job in terms of intellectual, abilities, skills, attitudes, and behaviours.

The components of the 21st century pedagogy challenge instructional competency. Additionally, the findings from the present research reveal the ten components of teacher competency on learning management in the 21st century to provide support to implement and align the framework to improve professional development (Office of the Education Council, 2008, pp. 49-50; OBEC, 2008, p.75; Wijarn Panich, 2012, p. 70; Nichapa Chanpen, 2013, p. 92; Prapada Khonklong, 2013, p. 28; Office of the Education Council, 2014, p. 85; Ong-art Naiyapatana, 2014, p. 45; MOE, 2016, p. 59; Office of the Teacher Civil Service and Educational Personnel Commission, 2016, p. 45; Thanomporn Laohajarsang, 2016, abstract). The ten components of teacher competency on learning management in the 21st century are analysed from document inquiries consisting of 1) Integrated curriculum development, 2) Learner-centred instruction methods, 3) Utilization of innovations and information technology for learning management, 4) Measurement and evaluation for learner development, 5) Morals and ethics in professions, 6) Teamwork and knowledge sharing, 7) Communication skills, 8) Thinking skills, 9) Teacher leadership, and 10) Research for student development.

In early decades, the Thai educational environment faced rapid changes which increased the demand of qualified and experienced teachers. Consequently, the provision of well-trained teachers for the students facing the challenges of 21st century is considered to introduce training and re-training to improve the quality of training and education in primary schools. Thus, different methods are used to improve the quality of teachers, such as informal dialogue to improve teaching, courses and workshops, education conferences and seminars, professional development networks, individual and collaborative research, mentoring and peer observation, observation visits to other schools and qualification programs (OECD, 2009, p. 57).

Analysis of the types of development activities for teacher professional development in the research revealed that the methods for teacher competency development for learning management in the 21st century consisted of 1) a workshop 2) a field trip, 3) an actual setting practice, 4) a self-study, and 5) an implementation report.

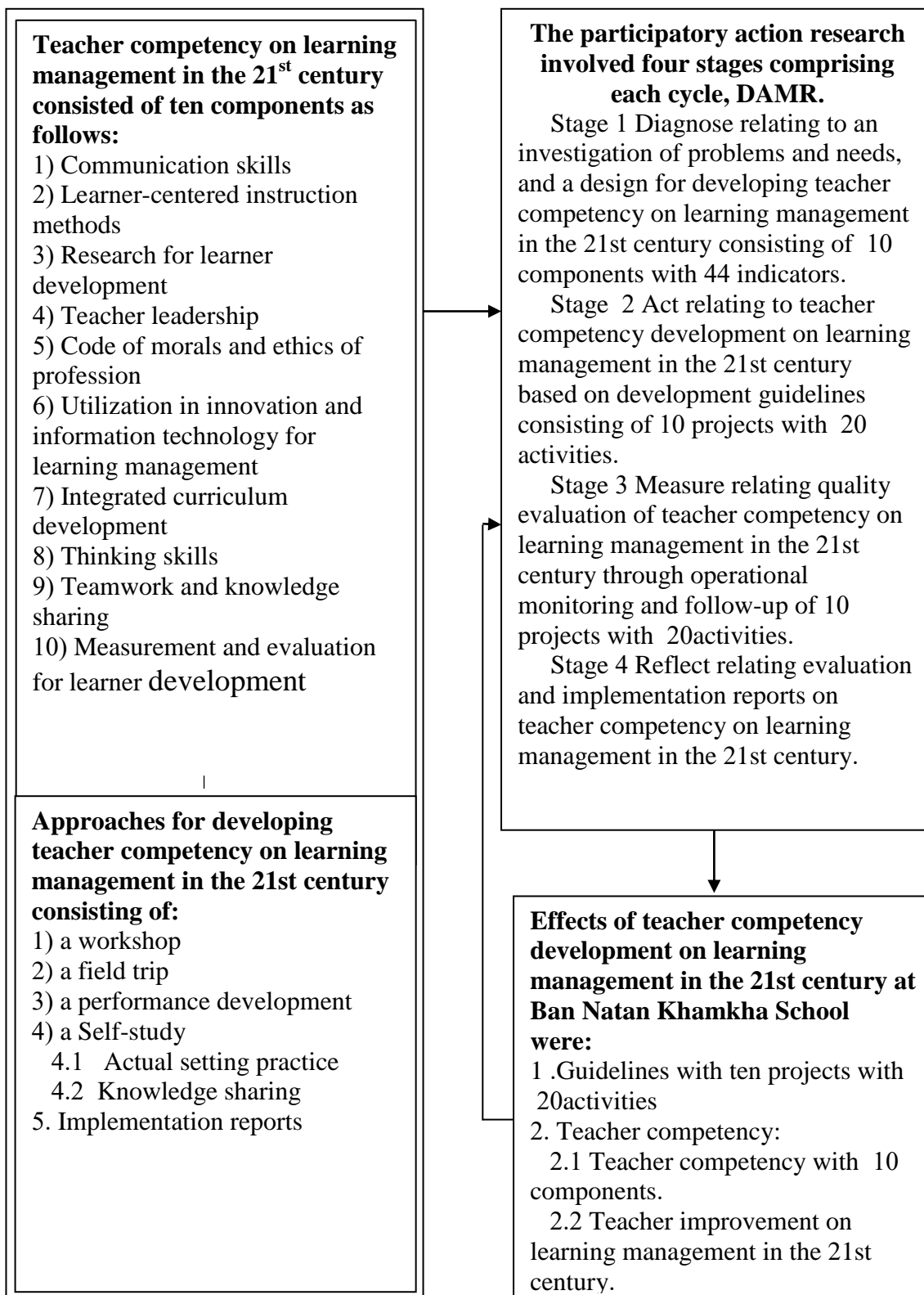
4. Conceptual framework

The researcher examined literature reviews about the development of teacher competency on learning management in the 21st century and summarized into a conceptual framework as follows:

1. The ten components of teacher competency for learning management in the 21st century consisting of:
 - 1) Integrated curriculum development,
 - 2) Learner-centred instruction methods,
 - 3) Utilization of innovation and information technology for learning management,
 - 4) Measurement and evaluation for learner development,
 - 5) Code of morals and ethics of profession,
 - 6) Teamwork and knowledge sharing,
 - 7) Communication skills,
 - 8) Thinking skills,

- 9) Teacher leadership, and
- 10) Research for student development.
2. The types of development activities for teacher competency development on learning management in the 21st century included:
 - 1) a workshop
 - 2) a field trip,
 - 3) an actual setting practice,
 - 4) a self-study, and
 - 5) an implementation report.
3. The Participatory Action Research (PAR) conducted to develop teacher competency on learning management in the 21st century is a joint working process among the research and co-researchers based on the concept of Milenkiewicz, M.T. & Bucknam, A. (2008, pp.150-154) consisting of:
 - 1) Diagnose is related to an investigation of problems and needs for designing learning management in the 21st century,
 - 2) Act is related to implementation of projects and activities for developing teacher competency on learning management in the 21st century as being diagnosed in the first step process,
 - 3) Measure. The researcher and co-researchers jointly constructed and refined follow-up and monitoring plans, and task evaluation and refinement, and
 - 4) Reflect. The reflection on the operation achievement based on project key indicators was addressed among the researcher and co-researchers and informants. The new cycle of the spiral was conducted to reflect the concept needing for improvement. The research conceptual framework is presented as in a figure below.

■ 5. Conceptual framework



6. Research methodology

The research methodology used in this research is discussed as follows:

1. The co-researchers consisted of the researcher as school director, teachers, personnel, yielding a total of 20 participants, and seven key informants including four heads of school tasks-academic affairs, personnel, budget, and general administration, and a total of three head teachers drawn from each level of education at kindergarten, primary, secondary levels.

2. The participatory action research involved four stages- DAMR

Stage 1 Diagnose relating to an investigation of problems and needs, and a design for developing teacher competency on learning management in the 21st century consisting of 10 components with 44 indicators.

Stage 2 Act relating to teacher competency development on learning management in the 21st century based on the developed guidelines consisting of 10 projects with 20 activities.

Stage 3 Measure relating quality evaluation of teacher competency development on learning management in the 21st century through operational monitoring and follow-up.

Stage 4 Reflect relating evaluation and implementation reports on teacher competency development on learning management in the 21st century.

3. Research instruments

The research instruments consisted of four sets of evaluation forms focusing on the development of teacher competency on learning management in the 21st century in a case of Ban Natan khamkha School: 1) a set of questionnaires asking needs for developing teacher competency in the 21st century, 2) a set of questionnaires to evaluate teacher competency development in the 21st century, 3) an observation form on teacher competency development in the 21st century, and 4) an interview form on teacher competency development in the 21st century.

4. Data collection

The participatory action research was carried out by the researcher, co-researchers, and informants to jointly observe, monitor and evaluate the development of teacher competency. The in-dept interviews was also conducted to collect data from the target group.

5. Data Analysis

1. Qualitative data analysis was done through various approaches, namely observation, in-depth interview, workshops, content interpretation and analysis, and building up conclusion.

2. Quantitative data analysis was done through a questionnaire form, and an assessment form. Data analysis employed basic statistics, namely percentage, mean, standard deviation which were categorized based on characteristics of the target group and variables.

3. Data analysis was conducted to discover and organize useful information for drawing conclusion. When the development process completed, the researcher analysed data, evaluate the development process, interpreted the results, and drew out the discussion and implication.

6. Statistics for data analysis

Basic statistics for data analysis were percentage, mean, standard deviation, PNI Modified, and progress percentage to compare the development process in the first and the second spirals.

7. Results of the research paper

The research findings revealed that:

1. Teacher competency on learning management in the 21st century in a case of Ban Natan Khamkha School consisted of ten components with 44 indicators: 1) communication skills with three indicators, 2) learner-centred instruction methods with five indicators, 3) research for learner development with three indicators, 4) teacher leadership with 5 indicators, 5) code of morals and ethics of professions with five indicators, 6) utilization of innovation and information technology for learning management with five indicators, 7) Integrated curriculum development with two indicators, 8) thinking skills with five indicators, 9) teamwork and knowledge sharing with seven indicators, and 10) measurement and evaluation for learner development with three indicators.

2. Problems and needs for teacher competency development on learning management in the 21st century at Ban Natan khamkha school were drawn from teachers' experience in terms of competency development, which were identified respectively as follows: 1) lacking communication skills, 2) limited knowledge and understanding about learner-centred learning management, 3) insufficient knowledge and understanding in conducting research for learner development, 4) lacking teacher leadership development, 5) lacking professional moral and ethical development, and 6) insufficient skills in utilizing innovations and information technology for learning management. Needs in teacher competency improvement comprised the following: 1) knowledge and understanding on integrated curriculum development, 2) thinking skill development, 3) teamwork and knowledge sharing improvement, and 4) knowledge and understanding on measurement and evaluation for learner development.

3. Guidelines for developing teacher competency on learning management in the 21st century in a case of Ban Natan Khamkha consisted of 10 projects with 20 activities.

4. The effects after the implementation revealed that:

1. The evaluation results found that the teacher competency development on learning management in the 21st century consisted of ten components with 44 indicators.

The operations of the projects for developing teacher competency on learning management in the 21st century, as a whole were at a high level. In the first spiral, teacher competency was at a moderate level with the components needing improvement consisting of Component 3-Research for developing learners, and Component 4-Teacher Leadership. The second spiral was thus conducted and indicated that the two components achieved at good and very good levels with the progress of 86.35 and 87.41 percent, respectively.

2. The reflection results from the co-researchers and key informants revealed that teachers developed the awareness level about the importance of teacher competency development on learning management in the 21st century. In addition, teachers as co-researchers involved and engaged in all stages of the participatory action research approach, resulted in the changes to instructional conditions and practices in terms of self-confidence and acceptance of professional advice from colleagues. As the result of these changes, teachers improved by developing professional teachers toward enhancing the 21st-century teacher skills and consequently improved learning skills of learners.

8. Conclusion and Discussion

Based on the aims of the research, the findings of the study were discussed as follows:

1. The results showed that the components of teacher competency on learning management in the 21st century in a case of Ban Natan Khamkha School consisting of ten components with 44 indicators: 1) communication skills, 2) learner-centred instruction methods, 3) research for developing learners, 4) teacher leadership, 5) code of morals and ethics in profession, 6) utilization of innovation and information technology for learning management 7) Integrated curriculum development, 8) thinking skills, 9) teamwork and knowledge sharing, and 10) measurement and evaluation for learner development.

This might be because the research and co-researchers demonstrated commitment to improve quality of education to keep pace with the global changes through the SWOT analysis and found the two strengths, including personnel, and media and technology. This is true when personnel are ready to engage in teacher competency development in the 21st century in accordance with the vision of the Office of the Teacher Civil Service and Educational Personnel Commission (OTEPC, 2016, pp. 3-6) which highlights a higher quality of education for educational personnel focusing on competency-based system.

The research done by Charoywan Prasertphon and others (2013, p.51), supported the finding of teacher competency development which portrayed teachers as persons who had competency in terms of quality, knowledge, abilities in teaching and professional ethics, and self-devotion for professional benefits. In addition, according to Thanomporn Laohajatsang (2014, p.53), her study pointed out that in the age of technology and communication, teachers must gain important skills, C-Teacher consisting of eight aspects: 1) Content-Teachers must have knowledge and skills in the contents taught, 2) Computer (ICT) Integration - Teachers must have skills in using technology into practice, 3) Constructionist - Teachers must understand the concept that learners are able to create a body of knowledge by connecting through content knowledge and learning experience in classroom and self-study, 4) Connectivity - Teachers must be able to organize activities to connect with learners, between teachers and learners, and among teachers from the same or different schools, 5) Collaboration-Teachers must be able to cooperate with students effectively. In other words, teachers must play a role as a coach providing best advice for students in learning, 6) Communication-Teachers must have communication skills, 7) Creativity - Teachers must provide new ways of learning and a wide range of teaching and learning activities, and environment conducive to learners' self-learning, and 8) Caring - Teachers must show kindness to help learners feel cared for and loved, and genuine interest in learners' well-being.

2. Problems and needs for teacher competency development on learning management in the 21st century of Ban Natan Khamkha School could be identified as follows: 1) lacking communication skills, 2) limited knowledge and understanding about learner-centred learning management, 3) insufficient knowledge and understanding in conducting research for learner development, 4) inadequate teacher leadership development, 5) limited professional moral and ethical development, and 6) insufficient skills in utilizing innovations and information technology for learning management. Needs concerned teacher competency improvement comprising: 1) knowledge and understanding on integrated curriculum development, 2) thinking skill development, 3) teamwork and knowledge sharing improvement, and 4) knowledge and understanding on measurement and evaluation for learner development.

This was clear that, the support factors at the school, such as resources and community readiness, the needs for school development toward international standards in the age of globalization contributed to supporting the successful implementation to lead to teacher competency development. The well-functioning cooperation between guidelines management, school, personnel and parents when implementing the developed guidelines in a school setting resulted in a significant improvement of teacher competency on learning management. Besides, most teachers see the importance of new skills development on learning management to keep pace with the changes. Teachers should also change the learning management and raise important considerations about shifting paradigm of learners' thinking skills, analysis, synthesis, and eventually being able to build a body of knowledge by themselves. This is consistent with the study by Anchalee Suknaisith and Anupan Kampan (2017, abstract) who found that the ranking need for teacher competency in the 21st century, calculated with PNI Modify, was valued with the highest PNI Modify, including analysis, synthesis, and research for learner development, whereas the lowest PNI modify value was ethics and teacher ethical profession. This was also found in the study conducted by Chatchai Vangmeejongmee (2017, abstract). He pointed out that the issues found relating to teacher competency consisted of: student-centred teaching competency, formative evaluation, individual learner difference competency (assessment and evaluation taking into account individual learner difference), computing and ICT literacy, morality and professional ethics, teamwork and professional learning community, cross cultural awareness, and coaching and facilitating. By studying barriers to implementation, factors identified affect the implementation process in general, according to the literature review, including lacking teaching spiritual values of beginning teachers, and non-adaptive instructional practice of experienced teachers. Teachers also encountered teaching problems from both external factors and internal factors. Teachers also expressed the needs for effective self-development to further develop learners entering the workforce in the 21st century.

3. Guidelines for teacher competency development on learning management in the 21st century of Ban Natan Khamkha School were proposed and agreed by the researchers and co-researchers consisting of ten projects and 20 activities as follows: Communication skills, Research for developing learners, Teacher leadership, Code of morals and ethics of profession, Utilization of innovation and information technology for learning management, Development of integrated curriculum, Thinking skills, Teamwork and mutual knowledge sharing, measurement and evaluation for learner development.

Participants in this research highlighted that the proposed guidelines for teacher competency development on learning management in the 21st century were effectively implemented as of the participation of co-researchers in every stage of the development process, such as designing projects, engaging in a wide range of learning management and self-motivated learning opportunities, working collaboratively, sharing knowledge, and forming projects and activities with connections among key objectives of all designed projects and activities. As a result, the developed guidelines containing well-designed projects and activities for teacher competency development would fulfil teachers' needs and improvement of individual teaching competency on learning management in the 21st century.

The findings were also consistent with the Office of the Education Council (2012, p. 59) who concluded the five competencies based on McClelland concept consisting of 1) Knowledge. This refers to specific information and learning from profession such as knowledge about engine etc., 2) Skills. This refers to a person's ability to perform a certain task effectively and actively such as computer skills, knowledge

transferring etc. Those skills can be demonstrated through fundamental knowledge, 3) Self-Concept. This refers to a person's attitude, values and self-image. A person's belief that he or she can be successful in a given situation as called self-confidence, 4) Traits. This refers to physical characteristics and consistent responses to situations or information, for example being a trusted and reliable person, or having leadership behaviours, 5) Motives/Attitude. This refers to motivation or internal drive that impulse prompt action toward successful goals and achievement.

4. The evaluation results of teacher competency development on learning management in the 21st century in a case of Ban Natan Khamkha School presented that after the two-spiral implementation, the overall mean score of the school projects was at a high level. In the first spiral, teacher competency was at a moderate level with the components needing improvement consisting of: Component 3-Research for Developing Learners, and Component 4-Teacher Leadership. The second spiral was thus conducted and indicated that the two components achieved at good and very good levels with the progress of 86.35 and 87.41 percent, respectively.

The co-researchers and key informants reflected that teachers developed the level of awareness about the importance of teacher competency development on learning management in the 21st century. In addition, teachers as co-researchers involved and engaged in all stages of the participatory action research approach which resulted in the changes to instructional conditions and practices in terms of self-confidence and acceptance of professional advice from colleagues. As the result, teachers improved the 21st-century skills for better outcomes of the 21st-century learners.

The findings supported a participatory action research process which encompassed the research and co-researchers to create good relationships becoming a collaborative research and good working environment. The following qualities were also found influencing a success of the implementation, including creativity, working as a team, sharing knowledge, and giving full cooperation to implement the projects and activities continuously through various approaches.

In addition, the researcher set the example by having continuous personal development to enhance the following qualities set as an example for personnel to follow and to have faith and confidence in leader's potential. The researcher also demonstrated the following qualities: being receptive to colleagues' feedback, acknowledging the problems and mistakes occurred in organisations together, and looking for the ultimate opportunities of development for the highest benefits to organizations. This is consistent with a study by Prapada Khonklong (2017, pp.86, 298-299). She pointed out that in education development process and learning development, teachers still are meaningful and important to the quality of education. Student quality is upon teachers' quality. Thus, the following qualities, such as mutual development for self-changes, leadership, acknowledging problems of organizations together, looking for opportunities for self-development and further implementation into practice for ultimate benefits of organizations, and establishment of guidelines for education development preparation to enter the 21st century effectively.

9. Suggestions

The researcher makes the following recommendations for teacher competency development and practice.

1. The recommendations are as follows:

The key finding of the research was the proposed guidelines for teacher competency development on learning management in the 21st century consisting of 10

projects and 20 activities. The proposed guidelines formed various approaches which were constructed through continuous collaboration among the researcher and co-researchers, and consistency of monitoring and evaluation based on the participatory action research to update information. The development process portrayed the important lessons because the information was drawn from the successful actual setting practice. The information retrieved could be further developed and progressed to be successful tasks and constructed to be a new body of knowledge becoming the effective guidelines for developing teacher competence on learning management in the 21st century.

The teacher competency on learning management in the 21st century consisted of 10 components should be implemented as guidelines for future teacher competency development in relevant academic organizations. Thus, strategies must be implemented with the focus on addressing the problems the schools face. The quality of education development is upon the collaboration of all stakeholders, and mutual responsibility, creativity, design of a development process with cooperation. The proposed guidelines would account for being education models with examples of successful task development.

2. The recommendations for further studies are as follows:

It is recommended that a similar research should be conducted on a model for teacher competency development on learning management in the 21st century in primary schools under the Sakon Nakhon Primary Educational Service Area Office 1.

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