TAKECARE Model for Enhancing Learning Management Competency on Reading Skills Development Based on PISA Assessment of Thai Language Teachers

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Abstract

This research was aimed to create, develop, and study effects of TAKECARE Model for strengthening learning management ability on reading skills improvement based on PISA of Thai language teachers. It was conducted with Research and Development with 3 stages: creating and developing TAKECARE Model; quality inspection and model improvement through assessment; including confirmation of theoretical validity, feasibility, and consistency of the model by experts. Trial and evaluation revealed that the results of model development are composed of 5 elements: principles, objectives, contents, supervision procedure, and supporting factors. The evaluation by experts indicated that TAKECARE Model gained theoretical validity, feasibility, and suitability in overall at the highest level. The effects of trial of the model revealed that supervised teachers had higher knowledge of learning management competency of reading skills improvement based on PISA after the supervision and the score was higher than 70% threshold with statistical significance at the level of .05. The ability of creating exercises of reading skills based on PISA after the supervision was at a high level which is higher than 70% with statistical significance at the level of .05. The competency of learning management on reading skills improvement based on PISA was at a high level which is higher than 70% with statistical significance at the level of .05. In addition, the supervised teachers had satisfaction towards the supervision model at the highest level. The students' satisfaction on learning management using TAKE Model was at the highest level as well.

Keywords: Supervision Model, TAKECARE Model, Learning Management, Reading Skills, PISA

Introduction

Reading is a daily occurrence for most of people. Education system needs to prepare students to adapt to a variety of situations that they will encounter and read when they grow up. These situations relate to personal goals, development initiatives, and higher education experiences. It includes working interactions with public organizations in online community and society. However, proficiency in reading alone is not enough. The students should be motivated to read and be able to read for a variety of purposes OECD (2019a); cited from Britt, Rouet, and Durik (2017); Van den Broek et al. (2011). It is related to the Sustainable Development Goals, with Subgoal 4.6; ensuring that all youth and adults, men and women be able to read, write and calculate by 2030. There is a policy framework for the development of educational quality and learning at all levels and categories for learners to have knowledge, ability, and competency in reading and writing in Thai language (Office of the Education Council, 2018). Reading literacy is another necessary skill for learning and life development to success. Fluent reading and comprehension encourage critical thinking, discriminating and

applying useful information to life as well as being able to communicate knowledge and thoughts to others. This is an important skill in the 21st century. Program for International Student Assessment (PISA) aims to assess the quality of the educational system in preparing people to have potential, or basic necessary abilities to sustain life in a changing world. PISA focuses on evaluating students' competency in applying real-life knowledge and skills rather than curriculum-based learning in schools. It is a three-year survey of 15-year-old students around the world that focuses on reading, math and science assessments. Not only does it make sure the students approaching compulsory graduation are able to apply what they have learned, but also it is necessary to know that they will be able to expand their knowledge from what they have learned and can use it in new and unfamiliar situations both at and outside the school. This way of thinking reflects the reality that the modern economy does not reward the individual for what he knows, but to those who know what they can do with what they know. PISA 2018 (OECD, 2019b) has defined that reading literacy is the ability to understand what has been read. It can be used to assess, reflect in their own opinions, and have affection and commitment to reading in order to achieve the goal, improve knowledge, including potential and participation in society. The PISA 2018 reading assessment found that Thailand had a reading score of 393, which was lower than the OECD average. From the reading achievement of the students in private schools of the province, it was found that the students were not fluent in reading, being stumbled, and not concentrating on reading. Also, the students' reading background is not good enough. The researcher has analyzed and realized that the major problem is that the students lacked reading skills, especially reading in accordance with the PISA assessment guidelines, which is reading for analysis, be able to interpret and analyze what is read in order to apply it in daily life. Therefore, the basic information has been studied.

Educational Supervision is to promote and create for teachers to develop effective teaching and learning by taking into account the skills and individual needs to find ways to create creativity that encourage learners to develop a body of knowledge and competency according to the purpose of education, as well as, creating a friendly atmosphere and having good relationship with teachers. The educational supervision is therefore a process to develop successful educational management for kids both directly or indirectly, with the ultimate goal of improving the quality of learners. The results of basic information analysis on supervision conditions and learning management to improve reading skills according to the PISA assessment guidelines of Thai language teachers found that, in overall, teaching supervision on practice was at a moderate level. The results of an interview with private school administrators in order to know the conditions of teacher development in learning management of reading skills according to the PISA assessment guidelines in private schools revealed that the development of teachers in private schools is mostly developed by the original affiliation. Organizing training causes teachers have to abandon their classes and magnify an outcome after the training, or they do not magnify an outcome due to over workload and unable to perform effectively, especially the learning management to develop reading skills for the learners. It is very difficult for teachers who don't graduate with a major, or graduate with a major, but they do not have enough experience in learning management. Therefore, developing teachers to have skills in learning management on developing reading skills, especially reading skills according to the PISA assessment guidelines, reading literacy is an advanced reading skill. It should be a characteristic that the teacher develops from real practice to the classroom, and solve problems gained from the classroom. In addition, technology is used to help in learning management as well. In consequence, supervision is another method for teacher development, especially in learning management because the supervision is a development where teachers lack or should improve from actual teaching in the classroom. The administrators must focus on and support supervising activities and raise awareness of professional development.

According to the problems, importance, and concepts of teacher development regarding learning management and reading skills development, the researcher is a supervisor which is responsible for studying, analyzing, conducting research and developing media and innovation for teacher development to be able to manage teaching and learning effectively. Therefore, the researcher is interested in creating innovation on supervision with TAKECARE Model in order to use in the supervision model development for enhancing learning management on reading skills development in accordance with the PISA Assessment guidelines of Thai language teachers. It aims to create and develop TAKECARE Model for encouraging the competency of learning management on reading skills development based on the PISA Assessment guidelines of Thai language teachers in the aspect of Comparison of knowledge about learning management to improve reading skills according to the PISA assessment guidelines of Thai teachers before and after using TAKECARE Model, and after the supervision with the specified criteria of 70%, comparison of the ability to create a reading skills exercise according to the PISA assessment guidelines with the specified criteria of 70%, and comparison of the ability of learning management to improve reading skills according to the PISA assessment guidelines with the specified criteria of 70%.

Literature Review

The development of TAKECARE Model for enhancing the competency of learning management on reading skills development based on the PISA Assessment guidelines of Thai language teachers has been specified a conceptual framework that consists of notion and fundamental theories involved in applying, including concepts of the model and the model development. The researcher has studied the concepts of Joyce and Showers (2002), Yuenyong (2010), Rungruangvanichkul (2013), Jan-upakara (2014), Phalaphon (2015), Chaiywong (2017), Chonburaphan (2017), and Bowornsak (2018), which can be summarized as 5 components of the supervision model, namely, principles which are the basic concepts of learning activities; objectives which refer goals defined for developing the desired characteristics; contents used for the supervision which is defined knowledge and t is consistent with the objectives; supervision process which is a step or sequence of supervising activities; and supportive factors.

Base on concepts of the supervision process, the researcher has studied, analyzed, and synthesized, concepts, theories, documents and related studies; Clinical Supervision (Cogan, 1973); Cognitive Coaching (Beach & Reinhartz, 2000); Coaching Supervision (Costa & Garmston, 2002); Coaching to Problem Solving (Jackson & McKergow, 2007); CLEAR Mode (Hawkins & Smith, 2006); Peer Coaching (Lao-reandee, 2013); and Professional Supervision (Glatthorn, 1984). It can be summarized as 8 components as follows: 1) Trust (T); 2) Analysis (A); 3) Knowledge (K); 4) Electronic for Supervision (E); 5) Creation of Learning (C); 6) Action (A); 7) Reflection (R); and 8) Evaluation (E), called "TAKECARE Model.

According to the concepts of reading literacy or reading based on the PISA Assessment guidelines, the researcher has studied, analyzed, and synthesized the concepts, theories, documents and related studies. Tulapongpipat (2019) mentioned that assessment method of reading according to the PISA assessment guidelines by Pisa Thailand (2019) consists of the structure of reading literacy assessment as follows: 1) Situation as context or purpose of reading; 2) Text as what is written or compiled for reading, with various forms both written and printed media including electronic media either continuous, discontinuous, or mixed. Sentences have different characteristics. And 3) Aspect has 3 aspects: access and retrieval competency; integration and interpretation competency; as well as, reflecting and assessing

reading performance according to the PISA Assessment guidelines provided to students through a variety of reading activities. The format of the reading development exercises according to the PISA assessment guidelines was classified into 3 categories, namely, 1) multiple choice; 2) complex; 3) extended-response question, which is created for the students to write their own answers, and there are two types: (1) closed constructed that the students are required to write the expected answers to the questions, otherwise, no points will be scored; (2) open constructed.

Methodology

This study was conducted with Research and Development with 3 stages, which are: 1) creating and developing TAKE Model for enhancing the competency of learning management on reading skills development based on the PISA Assessment guidelines of Thai language teachers. It was conducted by studying fundamental information on needs of teacher development and supervision, studying documents and related studies, creating an outline of the supervision model, constructing data collection tools, examining the supervision format outline, and inspecting the quality of data collection tools by experts. 2) Quality inspection and improvement were done by pilot experiment for 3 times with Thai language teachers who were not the sample group, and the defects found was improved in order to use in the real experiment with the sample. 3) The model trial and the results of using TAKECARE Model for enhancing the competency of learning management on reading skills development based on the PISA Assessment of Thai language teachers are as follows: a sample group refers to 10 Thai language teachers of Prathomsuksa 4-6 from 3 schools, who are interested in self-improvement regarding learning management on reading skills development based on the PISA Assessment and are prepared to have supervision through TAKECARE Model, in Semester 2, Academic Year 2019. The sample group was selected by purposive sampling with one-group pretest-posttest design.

Data Collection

Stage 1: Data collection was conducted by testing knowledge of learning management on reading skills development according to the PISA Assessment of Thai teachers. Stage 2: Experiment is implemented based on TAKECARE Model. Stage 3: After the experiment, the supervision model was used to collect data by testing knowledge of learning management on reading skills development according to the PISA Assessment of Thai teachers. In addition, there was questionnaire on satisfaction of related persons towards using TAKECARE Model.

Data Analysis

The researcher analyzed data as following: 1) analyzing knowledge of learning management on reading skills development based on the PISA Assessment of Thai language teachers by finding the mean ($\bar{x}$) and standard deviation (S.D.), comparing the scores before and after the supervision. Dependent Sample t-test was used and the mean scores after the supervision were compared with the defined criteria of 70% using One Sample t-test. 2) An analysis of the ability to create reading exercises according to the PISA guidelines was compared with the defined criteria of 70% using One Sample t-test. 3) An analysis of the ability to design lesson plans on reading skills development based on PISA was compared with the defined criteria of 70% using One Sample t-test. 4) An

analysis of the competency of learning management on reading sills development based on PISA was compared with the defined criteria of 70% using One Sample t-test. 5) An analysis of relevant persons' satisfaction towards using TAKECARE Model for enhancing the competency of learning management on reading skills development based on the PISA Assessment of Thai language teachers using the mean ($\bar{x}$) and standard deviation (S.D.). Finally, 6) The qualitative data obtained from opinions about TAKECARE Model that were analyzed by content analysis.

Findings

The results of the development of TAKECARE Model to enhance the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers consist of 5 components: 1) Principles; 2) Objectives; 3) Contents; 4) Supervision Process; and 5) Supportive Factors for Supervision as follows:

Principles of the supervision are 1) to help the teachers to succeed in providing learning activities with effectiveness; 2) to develop the teachers regarding learning management on reading skills development based on PISA Assessment cooperation between supervisors and those who receive supervision which is a combination of various media and learning resources, such as learning through printing media, electronic media, and learning through social networks. 3) There is evaluation according to actual conditions, in terms of knowledge and skills, and apply the results to develop learning management skills to become professional teachers.

Objectives are to encourage the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers.

Contents are composed of: Unit 1 Reading based on PISA Assessment; Unit 2 Reading strategies; Unit 3 Reading exercises creating; Unit 4 Guidelines for learning activities of reading literacy; and Unit 5 Use of online materials for learning management.

Process of TAKECARE Model consists of Trust; Analysis; Knowledge; Electronic for Supervision; Creation of Learning; Action; Reflection; and Evaluation.

Supportive factors for supervision consist of 1) The preliminary agreements with school administrators are as follows: the administrators need to develop teachers in a variety of ways, recognize the importance, and believe that the supervision is another suitable method of developing teachers. In addition, the administrators provide support in implementing the supervision model, for example, it is allowed to spend some time in workshop, providing support for media, technology and facilities. The administrators understand that teaching supervision is a method to help teachers develop their own learning management and provide courage while performing. 2) The preliminary agreements with Thai language teachers are as follows: the teachers are voluntary and intends to improve teaching and learning activities with the supervision model. The teachers are also willing to participate in the implementation of TAKECARE Model.

The effects of using TAKECARE Model for enhancing the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers were theoretically reasonable, and gained feasibility and suitability at the highest level, in overall, as in Table 1.

Table 1. The results of TAKECARE Model for enhancing the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers

Aspects for assessment	Theoretical validity			Feasibility			Suitability		
	($\overline{x}$)	S.D.	Level	($\overline{x}$)	S.D.	Level	($\overline{x}$)	S.D.	Level
Background and importance of the model	4.76	0.47	Highest	4.72	0.49	Highest	4.64	0.53	Highest
Fundamental concepts for model development	4.60	0.51	Highest	4.73	0.48	Highest	4.73	0.48	Highest
Principles of the model	4.73	0.48	Highest	4.73	0.45	Highest	4.60	0.51	Highest
Objectives of the model	4.85	0.25	Highest	4.75	0.47	Highest	4.65	0.52	Highest
Contents	4.89	0.23	Highest	4.80	0.38	Highest	4.75	0.47	Highest
Process of TAKECARE Model	4.72	0.48	Highest	4.75	0.46	Highest	4.70	0.47	Highest
Supportive factors for supervision	4.68	0.49	Highest	4.64	0.53	Highest	4.76	0.47	Highest
Total Average	4.76	0.42	Highest	4.75	0.45	Highest	4.71	0.48	Highest

The results of using TAKECARE Model for enhancing the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers indicated that, after the supervision, supervised teachers through TAKECARE Model gained higher knowledge about learning management on reading skills development based on PISA Assessment with statistical significance at a level of .05, and the score gained 22.50, accounted for 75% which was higher than the defined criteria of 70% with statistical significance of a level of .05. Therefore, the assessment was at a high level, as shown in Table 2-3.

Table 2. Score comparison of knowledge about learning management on reading skills development based on PISA Assessment of the sample group before and after the supervision using TAKECARE Model

Examination of learning management on reading skills development based on PISA	Number of teachers	Total score	$\overline{x}$	S.D	t	p
After the supervision	10	30	22.50	2.12	10.030 *	.000
Before the supervision	10	30	15.80	1.23		

* p ≤ .05 t = 1.8331 df=9

Table 3. Score comparison after the supervision of knowledge on learning management on reading skills development based on PISA Assessment of Thai language teachers of the sample group with the defined criteria od 70%

Results of assessment	Number of teachers	Total score	$\overline{x}$	S.D.	Criteria (70% of total score)	Statistic value (t)	p
Examination of knowledge on learning management on reading skills development based on PISA Assessment	10	30	22.50	2.12	21	2.219*	.000

* p ≤ .05 t = 1.8331 df=9

Comparison of the competency on creating reading exercises according to PISA Assessment after the supervision gained average score as 42.8, accounted for 85.6%, which was higher than the defined criteria of 70%. It was at the highest level with statistical significance at a level of .05, as shown in Table 4.

Table 4. Score comparison of the competency on creating reading skills exercises based on PISA Assessment with the defined criteria of 70%

Results of assessment	Number of teachers	Total score	$\bar{x}$	S.D.	Criteria (70% of total score)	Statistic value (t)	p
Competency on creating reading skills exercises based on PISA Assessment	10	50	42.8	1.75	35	14.105*	.000

* p ≤ .05 t = 1.8331 df=9

The comparison of the competency on creating reading skills exercises based on PISA Assessment after the supervision gained average score as 48.3, accounted for 80.50%, which was higher than the defined criteria of 70%. It was at a high level of .05, as shown in Table 5.

Table 5. Comparison of the competency of learning management on reading skills development based on PISA Assessment with the defined criteria of 70%

Results of assessment	Number of teachers	Total score	$\bar{x}$	S.D.	Criteria (70% of total score)	Statistic value (t)	p
Competency of learning management on reading skills development based on PISA Assessment	10	60	48.3	1.16	42	17.166*	.000

* p ≤ .05 t = 1.8331 df=9

School administrators and supervised teachers had satisfaction towards TAKECARE Model for enhancing the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers at the highest level, in overall.

Conclusion and Discussion

TAKECARE Model for enhancing the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers obtained from analysis and synthesis of documents, concepts, theories, and related studies. It consists of 5 components: principles; objectives; contents; process; and supportive factors. It is related to Joyce and Showers (2002), The supervision model consists of concepts, philosophy, principles, theories, beliefs, aims, contents, teaching methods or techniques, measurement and evaluation to achieve goals. Each plan provides guidance on how teachers must prepare for teaching, how to perform and evaluate. Thus, it would help students achieve the objectives defined. Consistent with Srisa-ard (2016), The model development must be based on the principle of reasoning and numerous research. It is very beneficial to the development of the model. The researcher probably first come up with an outline of the model and then improve it by using information from related studies, research, theories, ideas or findings, including validity test of the model which need to collect data or do experiments to apply in real situations to examine whether it

is suitable or effective as expected or not. It helps to know the influence or importance of sub-components, or variables. Researchers may revise by eliminating influencing or less important elements or variables from their models. This would result in a more suitable format.

Supervision process is the process of developing teachers to gain the ability of learning management on reading skills development based on PISA Assessment derived from the study of documents, concepts, theories of related research until obtaining TAKECARE Model. There are 8 components which can be discussed as follows: 1) Trust, a strategy for building good relationships between supervisors and those who receive supervision. Consistent with Britton and Anderson (2010) that proposed TRUST Model for building a relationship between supervisors and those who receive supervision, consisting of Truthful (T) which is being honest and faithful with each other; Responsive (R) which means open-minded and willing to freely share ideas, as well as unity; Uniform (U) which is to give confidence and stability in the relationship built. 2) Analysis for learning is an analysis of teaching and learning to provide information to be used in the design of learning management to develop reading skills according to PISA Assessment. It consists of an analysis of indicators to determine learning outcomes, analysis of learning outcomes, and analysis of learning management. It is also related to Smith and Ragan (1999) suggested a process used in the analysis of operating procedures that instructional designers can implement by collecting as much information as possible about tasks and contents related to learning outcomes. Then, there is creation of questions about the knowledge and skills used in successful practice to find answers to how it works by choosing from one or more activities. 3) Knowledge (K) is to provide various knowledge to supervised persons before the supervision by using the technique of training in 3 steps: pre-training is preparation in various fields, including training providers, lecturers, trainees, media, activities used, etc.; while-training is where the planned training is carried out and may be evaluated during the training, and observing the behavior of the training participants; and post-training is a final step where the project is evaluated on how successful it is. In which the results are analyzed, summarized, and feedback the information to those involved in order to find guidelines or recommendations for further development. This is related to Awakul (2007), training technique refers to various training methods that allow trainees to learn to create relatively permanent behavioral changes according to the objectives of the training. The training aims to change the behavior of the trainees in order to create knowledge and understanding until the behavior change is quite permanent according to the objectives. 4) Electronic for Supervision (E) is an application of electronic media to create perception between supervisors and supervised persons. Moreover, any flip is used to create e-kook and various knowledge materials, including Live worksheet to create reading skills exercises based on PISA. Padlet is also used as a learning board platform, with brainstorming, exchanging knowledge, and common ideas. Line is used to communicate. In current situation, electronic media has played a very important role in teaching and learning management. It can be regarded as a media that allows for more effective teaching and learning management. Consistent with Malithong (2011), defined learning through electronic media as a distance education that is very convenient for learners where they can study various lessons and activities from internet. This is in line with Ministry of Education (2014), which defines teaching and learning through Information and Communication Technology (ICT), which reduces time and space limitation for learners and teachers. With appropriate technology communication process, it expands educational opportunities and gives the learners opportunity to learn by themselves continuously throughout their lives. 5) Creation of learning is a form of reading literacy exercises based on PISA with an assessment component that covers reading in the basic elements: situation, statement or text. Reading strategy is a process of reading that demonstrates ability: accessing and retrieving content, integration and

interpretation, including reflection and assessment. The format of reading exercises with is in a variety of formats, for instance, complex multiple choice, or extended-response question such as close constructed response or open constructed response. Consistently, Tulapongpipat (2019) defined reading literacy as understanding, using, reflecting, and engaging of the written statement to achieve the goals of each person to develop knowledge and potential, as well as, development to participation in the process of society." Reading literacy means the ability to understand what is read and be able to reflect in their own opinions with love and committing to reading to develop knowledge, potential and participation in society. 6) Action is a process is a process and an important step of teaching supervision by knowledgeable supervisors who also have experiences in organizing learning activities. There is observation of learning activities of the supervise teachers during the class. It is relevant with Glickman, Gordon, and Ross-Gordon (2004) that mentioned teaching observation is a recording practice and the judgment of the results of the recording. Therefore, when observing teaching, it is necessary to record, collect data, analyze the observation data, interpret the information and notify the teachers receiving supervision for improvement and development in accordance with the problems and needs of teachers and to follow up on the implementation of lesson plans in organizing learning activities and measuring learning outcomes. 7) Reflection after the supervision is for developing learning management competencies on reading skills according to PISA, therefore reflected learning system in terms of Head, Heart, and Hand, as well as, important contents learned in each activity/worksheet. Furthermore, there is sense of what is learned as a moderation of mental/mind sensations. Use in learning, work, or personal life is the way to apply what has been learned to make it real in practice today. According to Wong et al. (1997), Sangragsa, Pongpatapiboon, and Plomelrsee (2016), learning reflection is technique and tools that help learners achieve better learning. This is the result of one's perceptions, expectations, and feelings about the experience, and lead to planning or solutions in the future through the process of thinking, reading, speaking and writing, which would help build the ability to think deeply about oneself. 8) Evaluation of using TAKECARE Model for encouraging the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers is composed of 3 stages, namely, pre-supervision, while-supervision, and post-supervision. In accordance with Ritcharoon (2011) and Fongsri (2007) summarized the overall assessment types classified into 3 groups: before operation; during operation; and post operation, in order to check whether the operation is in accordance with the objectives and goals or not.

The effects of using TAKECARE Model for enhancing the competency of learning management on reading skills development based on PISA Assessment of Thai language teachers met the specified objectives. This may be due to the developed supervision model that incorporates a variety of supervision methods, whether it is cognitive coaching in accordance with Beach and Reinhartz (2000) who stated that, cognitive coaching is a process that does not focus on judging right or wrong, but uses observation planning and meetings to reflect teaching behaviors. It is also used to formulate unique strategies to enhance students' perception of decision-making about learning development as an improvement of teacher's thought process. Related to Costa and Garmston (2002), cognitive coaching or coaching for cognitive development is a form of professional development coaching where the coachee is self-director, or as learning to improve and develop teaching with self-guided interactions between coaches and coachees. It is a medium for thinking, developing, and creating knowledge within oneself. As a result, the supervised persons had higher knowledge about learning management on reading skills development according to PISA Assessment after the supervision. The findings of this research are consistent with Thusriwan (2019) that conducted the study on the development of a coaching model to promote 21st century learning management skills for

secondary school teachers. It was found that after using the model, all teachers had higher skills on 21st century learning. In addition, the students gained higher learning achievement with statistical significance at a level of .01. In accordance with (Bunmak, 2019), studied on developing an integrated supervision model to promote teachers' competency in proactive learning management in basic education level. The results showed that teachers had higher knowledge and understanding of proactive learning management after the promotion with statistical significance at a level of .05. Also, they had the ability in writing lesson plan proactively at the highest level, including learning management skills, and teaching that promotes proactive learning management at the highest level.

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