COMPETENCY DEVELOPMENT OF STUDENTS USING COGNITIVE COACHING

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ABSTRACT:

This research was a one shot case study aiming at studying the learning management competency of students using the cognitive coaching model and studying the students’ opinions towards the learning management using the cognitive coaching model. The population consisted of 65 students in the second year of early childhood education, 1st semester of the academic year 2019. The sample group used in this research consisted of 36 students in the second year of early childhood education using cluster random sampling. The scope of contents for the learning management competency and cognitive coaching took the total duration of 8 weeks for trial. The research tools were the assessment form of student learning management competency and the assessment form of students’ opinions on learning management using the cognitive coaching model. The data was analyzed to find the mean and standard deviation. The research results revealed that the students’ learning management competency using the cognitive coaching model was at the highest level and the students’ opinions towards the learning management using the cognitive coaching model was at the highest level.

Keywords: Competency, Learning Management, Cognitive Coaching, Teaching, Pre-service teachers

I. INTRODUCTION

Education is the cornerstone of sustainable national development amidst the rapid transition of things in the current world that affects one another widely. Educating learners to create awareness, critical thinking, and the essence of happy living is for applying what has been learned to benefit oneself and society. Therefore, it is an effective preparation of people. In addition, the overall quality problem of learners in terms of the competency of Thai students compared to other nations is still at an unsatisfactory level. Such situation affects those involved in education who need to be aware of the learning process management of learners at all levels of educational institutes. The integrated learning that emphasizes practice in response to comprehensive self-development is promoted in order to adapt to the challenges of change in the globalization era sustainably. This agrees with the National Strategy B.E.2561-2580 (Royal Gazette, 2018: 32) in human resource development and capacity building. Article 4.3, learning process reform responsive to the 21st century changes. In subsections 4.3.1 and 4.3.2, it can be concluded that the systematic learning process should be designed at all levels to focus on the use of knowledge bases and thinking systems in an interdisciplinary manner. The emphasis is put on the students to practice with the reflection of thinking and pondering to create learners who are able to direct their own learning. They can apply knowledge. There must be a change in the role of teachers to be the new-era teachers. Teachers should become coaches or learning directors to act as stimulant to inspire, introduce learning methods and ways to organize knowledge creation, design activities, and create learning innovations for learners as well as playing a role as researchers to develop learning processes for learners’ achievements.

Therefore, in order to achieve the goal of learning process, the educational institutes and agencies that provide education to produce teacher graduates have created the competency-based curriculum. It is the curriculum that focuses on learning outcomes with the goal of being Able To Do, not the course of being Able To Know (Bang-on Sereerat). This is the combination and joint application of knowledge, skills, attitudes, attributes and other abilities that help an individual or group of people successfully work to raise national education quality level. The teaching profession can be strengthened to produce and develop teachers and educational personnel to have
quality and suitable standards. The personnel will have intellectual skills emphasizing the goal of creating quality people, smart people and good people with competitive competency and ability of innovation creation (Ministry of Education, 2019). Especially the learning management competency, the students must have skills in understanding learners, designing and planning learning management, environmental management, measuring, and evaluating learning outcomes to develop learners holistically. In addition, these competencies are one of the six core competencies that are the final outcomes derived from the crystallization of learning in terms of knowledge, practice, and having good attitude. These enable learners to be able to manage their learning effectively in the future. There are many methods or styles of learning that can develop learning management competencies for learners. Coaching is a teaching and learning process that can develop and encourage learners to build the body of knowledge. The essential skills can be practiced and the positive attitude can be built. This is consistent with the national strategy and the development of learners’ competency according to the curriculum.

II. LITERATURE REVIEW

Coaching is the partnership with the recipients in a creative thought-provoking process. It inspires the recipients to maximize their personal and professional potential (Therdthun Thaisriwichai and Worapat Phucharoen, 2019: 21). The fundamental principles of the coaching process or the guiding process are used by the coaches in the management of teaching and learning for teachers in schools. According to Thrope and Clifford (2003) referred to in the workshop documentation on Integrating CCR with Competency-Based Course (2019: 4-5), building relationships and trust are included. The empowerment helps in self-reliance, systematic work, and continuous development towards the common goal. The focus is on practical guidance, performance review, and reflection. As for the main goal of coaching, Awakuni, Gail H. (1995) stated three things; building and maintaining trust, facilitating collaborative learning and fostering global growth. This is consistent with the study of Samaphorn Manee-on (2017) finding that coaching focuses on using various strategies. It helps the recipients use the thinking process and their own intellectual processes in learning performance. They can decide to change their behaviors by themselves to improve teaching and learning management. The recipients must be the one who improve and develop the learning management by themselves. The interaction between the coaches and the recipients is the medium for the process of thinking, development and knowledge creation within oneself.

There are several types of coaching. Each has different focus (Wichai Wongyai and Marut Phatphol, 2015: 42). For example: 1) Instructional coaching is the coaching practice to provide teachers with knowledge and quality teaching management skills. The coaches may be the friends, experts, or administrators. 2) Literacy coaching is the coaching practice for students to learn and develop their literacy skills and arithmetic abilities which are the basis of learning and living. 3) Content coaching is the coaching practice that focuses on giving the recipients or learners the knowledge, understanding on the content of one subject in the connected and integrated manner. 4) Leadership coaching is the coaching practice for the recipients to have leadership qualities that can lead others effectively. 5) Cognitive coaching is the coaching practice that focuses on equipping learners or coaches with cognitive skills, especially in advanced thinking, problem solving, creativity, and innovation. Cognitive coaching is the model chosen by the researchers to develop learners into learning management competency as the nature of the process focuses on developing students’ competency in a step-by-step manner until they can direct their own learning and are able to work.

The cognitive coaching can help with planning, stimulate thinking, criticizing, and solving the work problems as well as being able to help one another (Tanyaphorn Chuenklin, 2010: 12). The cognitive coaching is the process to develop learners by the instructors who act as the coaches to draw on learners’ potential in terms of knowledge, abilities, and thinking as well as desirable characteristics as defined. They can know how to learn, are able to determine the direction of self-improvement. The cognitive coaching process leads to the goal achievement consisting of 5 steps (Wichai Wongyai and Marut Phatphol, 2015: 37.68): 1) goal setting (focusing on learning management outcomes that are consistent with the course), 2) examination on the actual condition (of the design of the work that needs coaching in what dimensions to be consistent with the goals), 3) determining alternatives to achieve the results (with friendly atmosphere), 4) decision making by using the criteria of Will (students can learn), Way (approaches and procedures of practice), Forward (revision on the performance and further development), and 5) coaching result evaluation to determine if learners have improved or not. In such learning process, the use of question power is inserted with the feedback reflection, training, learning exchange, use of conversational aesthetics, and provision of ideas that inspire students to learn. The students can plan to improve their own learning development leading to the pursuit of knowledge practicing skills until they can be
put into practice. This results in effective learning management performance as well as the continuous application in learning.

Thus, the researchers were interested in studying the development of students’ learning management competency using cognitive coaching with the objectives to study the learning management competency of students using the cognitive coaching model and to study the students’ opinions on learning management using the cognitive coaching model. This is to enable students to develop themselves in being capable of integrating knowledge and skills into quality and knowledgeable early childhood education management corresponding to the changing world in the 21st century.

III. RESEARCH METHODOLOGY

1. Population and sample group

The population used in this research consisted of 65 students in the second year of early childhood education, 1st semester of the academic year 2019.

The sample group used in this research consisted of 36 students in the second year of early childhood education, 1st semester of the academic year 2019, using cluster random sampling.

2. Data collection

The research tools used in the data collection were the assessment form of student learning management competency and the assessment form of students’ opinions on learning management using the cognitive coaching model for knowing the development and quality of tools in the following processes.

2.1 Studying the concepts, theories, documents and related researches used as the guidelines for creating learning management plans and assessments

2.2 Definitions of operational terms related to student learning management competency and cognitive coaching with 5 stages of cognitive coaching process used in research to achieve goals (Wichai Wongyai and Marut Phatphol, 2015: 68-69) including:

1) Goal setting (focusing on learning management outcomes that are consistent with the course)

2) Examination on the actual condition (of the design of the work that needs coaching in what dimensions to be consistent with the goals)

3) Determining alternatives to achieve the results (with friendly atmosphere)

4) Decision making by using the criteria of Will (students can learn), Way (approaches and procedures of practice), Forward (revision on the performance and further development)

5) Coaching result evaluation to determine if learners have improved or not

In such learning process, the use of question power is inserted with the feedback reflection, training, learning exchange, use of conversational aesthetics, and provision of ideas that inspire students to learn. The students can create innovations to effectively manage learning in real conditions.

2.3 Each type of assessment tools was created and characterized as a 4-level rating scale to assess students’ learning management competency. This consisted of 5 aspects; learner’s understanding, designing and developing of learning management plan, learning management, setting up of the environment, and use of media to support learning, measuring, and evaluating learning. The learners can be developed to create the tools to assess students’ opinions on learning management using the cognitive coaching model consisting of 7 aspects; counseling, communication, listening to opinions, empowerment, coordination, new knowledge and value appreciation.
2.4 The assessment form that has been created was brought to 5 experts to check the content validity to select and improve the text in accordance with the defined terminology. All messages must have the Index of Item Objective Congruence (IOC) between 0.80-1.00.

2.5 The assessment form in 4.4 was tried out with the target group that was not the sample group of 30 persons. Then, the results from the assessment were brought to check for scores and the Reliability of the assessment form was found using Cronbach’s Alpha coefficient. For the learning management competency assessment form, the confidence value was 0.748. For the assessment of students’ opinions towards learning management using the cognitive coaching model, the confidence value was 0.756, respectively.

2.6 The assessment form was published for further use in collecting the research data with the sample group.

The researchers conducted an experiment and collected data for 8 weeks from December 2020 – January 2021 using the five-step cognitive coaching process; goal setting, innovation creation, determination of alternatives, decision making for implementation, and coaching evaluation. This was divided into 2 phases as follows:

The 1st phase was the starting phase of learning arrangement

1) Goal setting focusing on learning management outcomes that were consistent with the course

2) The students created innovative art activities for early childhood (draft). The teachers examined the work according to the actual condition of the design in which dimensions required to be coached in order to align with the set goal.

3) The instructors and students jointly determined the alternatives to achieve more complete and appropriate results with the friendly atmosphere. The students decided to create or modify their own works.

4) The decision making used the criteria of Will (students can learn), Way (approaches and procedures of practice), Forward (revision on the performance and further development). At this stage, students took the modified work for practicing.

In steps 2), 3) and 4), the teachers inserted the power of the question, feedback, reflection, training, learning exchange, use of conversational aesthetics and conceptualization that inspired the students in learning leading to the pursuit of knowledge. The students could plan to improve their own learning development as well as practicing skills until they could be implemented in accordance with the set goals.

The 2nd phase was the improvement and development of learning management competency according to the process of cognitive coaching approaches

The students decided to bring the teacher’s suggestions, additional opinions on self and results. The experiment was used to improve the art activities for early childhood to be the complete innovation according to steps 3) and 4) of the 1st phase 1. Then, the modified innovation was used to organize activities in real situations with early childhood children according to the plan.

5) The coaching evaluation was to check whether the learners have improved or not.

Then, the data was collected from the assessment of student learning management competency and the assessment questionnaires of students’ opinions on learning management using cognitive coaching. All of the obtained data were brought for further analysis. It could be written into the diagram as follows:
3. Data analysis

The researchers analyzed the data using descriptive statistics such as mean and standard deviation. The performance assessment criteria were as follows:

The mean was 3.51 – 4.00 with the competency at the highest level.

The mean was 2.51 – 3.50 with the competency at the high level.

The mean was 1.51 – 2.50 with the competency at the low level.

The mean was 1.00 – 1.50 with the competency at the lowest level.

IV. RESEARCH RESULTS

The development of learning management competency of students using cognitive coaching approach revealed that 1) for the results of the learning management competency, the students’ learning using the cognitive coaching model got the mean = 3.68 and the standard deviation (S.D.) = 0.28 which was at the highest level. The students’ opinions on learning management using the cognitive coaching model got the mean = 3.93 and the standard deviation (S.D.) = 0.12 which was also at the highest level. The research results were presented in two parts with the following details:

Part 1 Results of students’ learning management competency using the cognitive coaching model were as shown in Table 1.

<table>
<thead>
<tr>
<th>Assessment items</th>
<th>X</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understanding of learners</td>
<td>3.40</td>
<td>0.44</td>
<td>High</td>
</tr>
<tr>
<td>2. Design and development on the learning management plan</td>
<td>3.78</td>
<td>0.36</td>
<td>Highest</td>
</tr>
<tr>
<td>3. Learning management</td>
<td>3.89</td>
<td>0.52</td>
<td>Highest</td>
</tr>
<tr>
<td>4. Environment and use of learning support media</td>
<td>3.67</td>
<td>0.36</td>
<td>Highest</td>
</tr>
<tr>
<td>5. Measuring and evaluation on learning to develop learners</td>
<td>3.67</td>
<td>0.46</td>
<td>Highest</td>
</tr>
<tr>
<td>Total</td>
<td>3.68</td>
<td>0.28</td>
<td>Highest</td>
</tr>
</tbody>
</table>

According to Table 1, the students’ learning management competency was found to be entirely at the highest level (\( \bar{X} = 3.68, \text{ S.D.} = 0.28 \)). When considering each aspect, it was found that all aspects of the students’ learning management competency were at the highest level. Except for No. 1, the understanding of learners, was at the high level. The learning management competency having the mean at the highest level was the learning management (\( \bar{X} = 3.89, \text{ S.D.} = 0.52 \)).

Part 2 Students’ opinion on the learning management using the cognitive coaching model was as shown in Table 2.
The research had the following findings:

1. The results of analysis on the students’ learning management competency using the cognitive coaching model had the competency at the highest level. The learning management had the highest mean due to the supporting factors. The instructors used the learning management process focusing on the participation and the stimulation of potential of students at every step. It started from 1) understanding the different abilities of students in order to see the coaching approach that is appropriate for each individual, 2) having clear goal of learning to achieve the correct learning outcomes that meet the goals, 3) participate in student innovations by listening attentively to understand what students think without rushing to judge but accepting the work as it is to create listening without conflict, 4) reflect which is an important tool in learning for further development of good work. The researchers took this process very seriously, spending time talking with students both during and outside school hours by arranging the meeting to discuss at least 2 times a week especially in the process of designing and creating learning management plan. Since the students were still sophomore students, they needed to provide the reinforcement of concepts in theories and modeling. Therefore, the discussions were held to exchange ideas both face-to-face and through online channels. Such activities greatly contributed to the students’ ability to create innovations or effective works. It had positive effect on learning management for kindergarten students, resulting in the highest mean in learning management (Henry, Aiyana Genae, 2012). 5) The presentation of alternative approaches by using clear, easy-to-understand questions encouraged students to gain ideas in many aspects that might be overlooked due to insufficient experience. With enough discussion and feedback, students could decide for themselves how to develop the work further, which part should be improved, which part should be encouraged to change. This was to promote the trial of new way but unguided ways to help developing and fostering as much inward confidence in one’s own thoughts as possible. Everyone can learn and develop. Everyone can find the solution in their own way. 6) Implementing the innovation in real-world situations with preschoolers until the end of the coaching evaluation made students’ learning management competency at the highest level. The students were able to organize a variety of learning activities that were attractive to the kindergarten teachers in the schools including the setting of the environment. The use of learning support media encouraged learners to be assertive, determined, and be able to design theoretically correct assessments. The cognitive coaching was therefore the teaching method that could help preparing teachers for better teaching. It taught students to be aware of their thinking and promote independent learning. Learners were able to gain knowledge and understanding through their own experiences (Henry, Aiyana Genae, 2012).

The research results were correspondent with Anongsiri Wichalai (2009) stating that coaching was the process of interaction between teachers and students to cause behavioral changes as expected from the ignorant to the knowledgeable understanding from those who were not able to do. The coaching was the learning activity where teachers helped students learn on their own (learn how to learn) and exchange knowledge or things between teachers and learners. The purpose in learning was the main. In this teaching method, teachers and learners will learn altogether (Wong and Nicotera, 2003). It was in accordance with the research of Sirimanee Banjong (2020:

Table 2 The table showed the mean and standard deviation of the students’ opinion on the learning management using the cognitive coaching model.

<table>
<thead>
<tr>
<th>Assessment items</th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Counseling</td>
<td>4.00</td>
<td>0.00</td>
<td>Highest</td>
</tr>
<tr>
<td>2. Communication</td>
<td>3.71</td>
<td>0.39</td>
<td>Highest</td>
</tr>
<tr>
<td>3. Listening to opinions</td>
<td>4.00</td>
<td>0.00</td>
<td>Highest</td>
</tr>
<tr>
<td>4. Empowerment</td>
<td>4.00</td>
<td>0.00</td>
<td>Highest</td>
</tr>
<tr>
<td>5. Coordination</td>
<td>4.00</td>
<td>0.00</td>
<td>Highest</td>
</tr>
<tr>
<td>6. New knowledge</td>
<td>3.71</td>
<td>0.39</td>
<td>Highest</td>
</tr>
<tr>
<td>7. Value appreciation</td>
<td>4.00</td>
<td>0.00</td>
<td>Highest</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.92</strong></td>
<td><strong>0.11</strong></td>
<td>Highest</td>
</tr>
</tbody>
</table>

According to Table 2, it was found that the students’ opinion on the learning management using the cognitive coaching model was entirely at the highest level ($\bar{X} = 3.92$, S.D. = 0.11). When considering each aspect, it was found that all aspects were at the highest level. The aspects with the equal mean of $\bar{X} = 4.00$ were counseling, communication, listening to opinions, empowerment, coordination, and value appreciation.

V. DISCUSSION AND CONCLUSION

The research had the following findings:
36-37) studying the development of learning management competency of the pre-service teachers using the guiding process. The results showed that the learning management performance of students and teachers using the guiding process was at the good level. The learning management competency of students and teachers after using the guiding process had the good level of learning management competency higher than before the experiment at a fair level. From the above experimental results, it can be identified that the cognitive coaching model can improve learners’ performance in learning management as it makes students understand learners (kindergarten students). They can design and prepare the learning management plan to manage learning, providing the environment and use of media to support learning as well as having the ability to measure and evaluate learning outcomes to develop learners at the highest level.

2. The opinions of students towards learning management using the cognitive coaching model had the competency at the highest level. When considering each aspect, it was found that all items were at the highest level. The aspects with the same highest mean were consulting, listening, empowerment, coordination, and value appreciation. This is because there are supporting factors including learning management using coaching for knowledge, thinking of learning with an atmosphere of feeling to have teachers as coaches. They are not in the role of instructors but they are the understanding listeners. Teachers value learners as being knowledgeable and capable in themselves. It makes them change their attitude for what they think they cannot do. The suggestions are made by using cause and effect to communicate clearly. There is no comparison with other friends. This encourages and supports students to build confidence and develop themselves from within. It stimulates thinking by using questions to bring out the students’ potential. The examples of question types are what students think there is anything else that can be done, what new things they want to happen, what else they think about. If not, is there any other way? After exchanging knowledge with friends, what is their opinion? Which good experience and other subjects are worth learning and would like to share with friends? The empowerment can change the feelings of learners to have confidence in their own potential or have an attitude towards themselves, such as giving reinforcement. The words are used to encourage students to recognize the importance of students to become good kindergarten teachers in order to develop children to grow up with quality. Therefore, everyone is talented and can do it. This creates the power from within to believe in one’s own potential to work effectively. It includes being a good coordinator as a facilitator in coordinating with kindergartens so that students can apply their own innovations to kindergarten children in real-life situations. This causes students to be more alert and willing to learn. They will be really interested and excited to bring this innovation to early childhood with good preparation and unity among the group. These supporting factors are at the core of coaching with some differences from general teaching.

From the reflection of students’ thoughts, the students said teachers care about teaching and care about students. They motivate students to think and do new things and give advice on various subjects. This makes the teaching atmosphere quite relaxed. Coaching can enable students to solve many problems that they do not understand or doubt. That is why it is great because students get advice from people with direct experience. It can be used in practice. The process of cognitive coaching has resulted in the change in students, namely gaining more knowledge of techniques and innovations that they have built from their own potential. It can be used to continue learning management. When the activities are successfully completed, the students see the value of their studies. They appreciate what they learn. The good value can be created for oneself with more positive attitude towards learning. They will not be panic when they make mistakes. These have been seen as good example. The students are able to learn teaching methods and solving immediate problems when they do not go as planned. They can develop their own potential, make innovation come out completely. This is consistent with the research of Kitiya Pankrut and Siriwan Wanchwathanaworachai (2018) who studied the Development of Chinese Phonetics of Mathayomsuksa 1 students by learning management that emphasizes cognitive coaching. It was found that the students had good opinion. They like to organize learning activities that focus on cognitive coaching. They have fun in learning, stress-free, comfortable in learning. The atmosphere in the classroom is pleasant to study, making the students want to study and gain more knowledge of Chinese. They can also apply the knowledge gained outside the classroom.

Such research results are consistent with the ideas of Wichai Wongyai and Marut Phatphol (2015: 12) who said that coaching must create both external factors, namely friendship, and an environment that promotes learning and the internal factor which is to encourage students to use the thinking process in the right way. For example, the coaches have personality that makes the learner feel comfortable and closed. They encourage students to learn and not be afraid. Coaches must give learners the opportunity to analyze, synthesize, think through a variety of methods and practice learning on their own. It will result in the success of the work and causing pride. The
success of this work is part of job satisfaction (Herzberg F. et al., 1990 cited in Rusda Chapakia, 2014). It is consistent with Somyot Nawee-karn’s concept (1978 cited in Najamee Ja-a, 2008: 64) who said that learner satisfaction is an important aspect of learning management. This will help motivating the students to work on assignments to achieve their objectives. It is also consistent with the research of Seuksa Ruangdam (2017: 15) finding the results of learning management by integrating the concept of contemplative education, coaching, and research – based approach affects the change in teaching behavior of students teaching Thai language in 6 aspects; attitude towards learners, teaching preparation, teaching management, using media and learning resources interaction with learners both inside and outside the classroom, measurement, and evaluation. When considering the assessment results from the first follow-up supervision, the quality was at a moderate level and the second time was of a very good level.

Therefore, developing students’ learning management competency using cognitive coaching is one method of learning management that can encourage students to develop their competency more efficiently. This is in accordance with the goals of the National Strategy of B.E. 2561-2580. It is an active learning management style that focuses on allowing learners to do real practice in acquiring knowledge, intellectual skills and good attitude towards learning. This is to motivate in order to be able to develop work until the results are successful with efficiency. It has a positive effect on learners in developing their potential and being able to apply them in practice effectively.

However, the researcher has suggestions for applying the results of the research as follows. Using questions to encourage students to understand the work and visualizing the development of work to be more efficient is important. They should be open-ended questions such as how, what else is important, etc. If they can be raised in accordance with the Bloom Taxonomy concept, the students’ competency will be enhanced. The time spent in coaching allows students to work more efficiently and without pressure as each person has different abilities and aptitudes that will result in self-satisfaction and job success. The recommendation for next researches is that the researches should be conducted on learning management with other forms or blended models in order to study the development of learners’ learning management competency in the 21st century. It should be studied and compared for learning management skills of learners in other subjects in order to predict the results of supervision. Learners who are trained using cognitive coaching to collect quantitative data use advanced statistics and possibly collect qualitative data to get deeper answers.

In addition, the flexibility in coaching time allows students to work more efficiently and without pressure as each person has different abilities and aptitudes which in turn results in self-satisfaction and job success. For further research suggestions, the researches should be conducted on learning management with other forms or blended models in order to study the development of learners’ learning management competencies in the 21st century. The learning management skills of learners in other subjects should be studied and compared in order to predict the results of supervision. Learners who are trained using cognitive coaching collect quantitative data, use advanced statistics, and possibly collect qualitative data to get deeper answers.

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