# A MODEL OF LEARNING ORGANIZATION FOR EARLY CHILDHOOD PRIVATE SCHOOLS IN CHIANG MAI PROVINCE

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## Abstract

This study aims to 1) develop the learning organization (LO) model and users' manual for early childhood private schools in Chiang Mai province and 2) examine the results of its implementation. This study divided into two steps. The first step was the model development. Three hundred and fifteen administrators and teachers in one hundred and twenty-one private schools in Chiang Mai province that provide early childhood services were involved and administered with the questionnaire. Mean and standard deviation calculations were performed to analyze the results of all collected data. The model was developed and nine experts were interviewed to evaluate the model. The second step was the model experiment. Ten administrators and teachers were selected to participate in a 4-month experiment. Data were collected using questionnaires, pre- and post-test, record of brainstorming and discussion, interview, lesson-learned and reflection. Mean and standard deviation and content analyses were performed to analyze the data. The 1st objective finding was the developed model design. It consisted of 1) the state of components 2) development process 3) the goals or outcomes. The first one contained six main components: systematic thinking; individual wisdom; conceptual thinking; shared vision; team learning; and knowledge management. There were also seven main factors: organization strategy, structure propriety, leadership, management, atmosphere and learning organization culture, motivation, and learning technology. The 2nd was one divided into 3 procedures (3 levels): planning (2 weeks; individual level), developing (3 months; team level), and evaluating (2 weeks; organization level). The 3rd one consisted of participant's attitude, knowledge, and understanding, performances, and satisfaction as well

as a learning organization building plan and its users' manual. The 2$^{nd}$ objective finding revealed positive improvement on all participants' knowledge and understanding, attitude, opinion, and satisfaction after the model implementation.

*Keywords:* Learning organization; early childhood; model; private school

## Introduction

Education management is an important factor enhancing people's thoughts, selection, and adaptation to new circumstances and things. The development of human resource quality is the key element for the sustainable development of the economy, society and the country. That means we have to support their development of self-potential and ability in order to drive the growth and stability of all sectors in the country.

Early childhood (3 to 8 years old), one of the 4 key periods of growth and human development, is a fundamental stage of human development. Children, in their first five years of life, learned to become better aware of all stages of growth: natural, physical, emotional, social, ethical, linguistic and intellectual (Science NetLinks, 2017). Therefore, the parenting and promoting of their potential in this period is important. Those who involve and take a responsibility for their quality growth need to have the knowledge, skills and methods to encourage the children to fully learn and develop their potential. Eventually, they will become honest and responsive citizens when they grow up.

Theories and related studies on child development stated that early childhood is the most important and essential period of the foundation of all growth. Therefore, if they have been raised well and correctly, they will fully develop. In the present, most of the children aged 1-3 years old are raised by their families and obtain the educational services from both public and private schools. Those schools provide them an early childhood education for the preparation of primary level (Office of the Education Council, 2017).

Unfortunately, development delays were found in all physical, emotional, mental, social, intellectual, and ethical development of early childhood learners. These results from a distressful condition of current parenting and training development based on the evaluation of the Office of the Education Council (2017). The evaluation also indicated a crisis of early childhood education system which created the poor early childhood learning management and poor teachers' production, teachers' recruitment, and teachers' development policies.

These poor policies caused many problems on early childhood education services. For example, they create the condition for poorer development in

reading, writing, and calculating which is believed to enhance the children to be qualified for grade 1. Elderly people or teachers do not allow children to express themselves and force them to sit quietly while giving lots of homework every day. Teachers lack understanding about learner-centered learning. There is also a lack of personnel specialized in the field of psychology and child development in the system. Besides, there is still a lack of pediatricians, pediatric psychiatrists, and expert teachers in early childhood education. Moreover, most early childhood education administrators do not have specific knowledge on how to provide and improve the quality of early childhood services for the children. Teachers do not know how to bring the knowledge into practice. Proper provision, preparation, and employment of appropriate resources for children as well as an overview database of early childhood development in all aspects are also in needs.

In addition, the coordination between service and development agents was poor. Therefore, the development of early childhood learning resources and learning materials which can enhance personnel's self-development was accordingly poor. Early Childhood teaching and learning has been conducted without the understanding of human basic philosophy, especially during the early days of life. Besides, early childhood personnel have inadequate understanding about child rights and human rights. Therefore, they lack awareness and understanding of the importance of child protection and safety. Accordingly, the management quality and the effectiveness of the agents that provide early childhood services development were poor.

The educational reform under the National Education Act BE 2542 (1999) and the amendments (No.2), BE 2545 (2002) (Office of the National Education Commission, 2002), aims to provide education for the development of Thai people. They, accordingly, will become complete and well-educated people equipped with the ability to live happily in society. This indicates that every parts of the society have taken a step further to create and support mutual learning society together.

To the best of our knowledge, the concept of a learning society begins to be mentioned and widely accepted. Schools need to be developed into a learning organization since they have to encounter both social and organizational changes. As a learning organization, schools must create their learning societies

in order to pursue the lifelong learning which is the goal of education. Its form and structure that foster learning were taken into account to enhance learning society adaptation within a changing social condition. From the study of the basic concepts of the learning organization development, the learning organization's five components: personal mastery, mental models, shared vision, team learning, and system thinking, were proposed by Senge (1990). The success of this adaptation depends on the strategy used which lead to the school's educational vision and goals. The learning societies within this learning organization will eventually create the quality of individual and group development as active self-learning agents, school development, as well as country and social development. The successful learning organization development can ensure the continuity and sustainability of high quality teaching and learning development.

So the task of creating a learning organization is a responsibility of modern schools' administrators. They must challenge their leadership in providing or seeking opportunities of learning in their organization with the belief that "As people learn, their abilities expand." Schools' administrators, as the leaders, must focus on human resource development to make the learning organization grow. They must provide the opportunity for their schools' staff to participate in various activities. As the active self- learning agents in all activities they get involved with, they will finally create quality learning society within their schools. Therefore, schools will become active and successful learning organizations. The more the learning organization grows, the more the development continues to succeed and vice versa.

The researcher, as a private early childhood school administrator in Chiang Mai province, has a strong intention to develop the quality of private early childhood schools in Chiang Mai. Thus, the idea of learning organization development was brought into account in this study. To shape the early childhood schools in Chiang Mai province to become quality learning organizations, the study aimed to investigate the factors that enhance learning organization, design the learning organization model, and study the result of using a learning organization model. With the belief that the findings of this study will eventually affect the development of the quality of teacher, schools, and learners in early childhood private schools. The study objectives and research questions were set as follows.

Study objectives:
1. To develop the learning organization (LO) model and users' manual for early childhood private schools in Chiang Mai province
2. To examine the results of its implementation

Research questions:
1. What components support the state of being learning organization amongst early childhood private school Chiang Mai Province?
2. What are the circumstances, problems, and supporting factors of being learning organization amongst early childhood private school Chiang Mai Province?
3. What model and instruction of learning organization should be adapted with early childhood private school Chiang Mai Province?
4. What are the results of the model and instruction used with early childhood private school Chiang Mai Province?

## Methods and Materials

The mixed method consisting of qualitative and quantitative approaches was used in this study. The research area comprised of all private schools in Chiang Mai province that provide early childhood services. The study was performed in two steps as follows.

### *Methods*

#### *The 1st step: The development of a learning organization model and users' manual*

The theories and results from related studies on learning organization were explored. The exploration revealed six components of learning organization and seven factors that enhance learning organization. The six components consisted of systematic thinking, individual wisdom, conceptual thinking, shared vision, team learning, and knowledge management. Seven factors that enhance the learning organization consisted of organization strategy, atmosphere and learning organization culture, motivation, leadership,

structure propriety, learning technology, and management. They were analyzed and the questionnaire was designed according to its results.

The questionnaires were constructed to investigate the learning organization states and problems and again the components and factors that enhance learning organization. An interview of nine experts was performed to investigate its accuracy, propriety, and feasibility. The experts were 3 early childhood schools' administrators, 3 early childhood education teachers, and 3 early childhood education experts. The researcher adjusted the questionnaires according to the experts' advice. The questionnaires were distributed to selected samplers. Three hundred and fifteen (315) copies of a questionnaire were collected. The collected data were analyzed and brought into the model development workshop.

Chosen samplers, twenty administrators and teachers from early childhood private schools, participated in the workshop on the development of learning organization model and the users' manual. After that, focus group discussion with nine experts was set up to investigate the quality, accuracy, propriety, feasibility, and utility of the developed model and users' manual. The researcher adjusted the model according to the experts' advice. The complete design of learning organization model and its manual were developed prior to the experiment step by the researcher.

### *The 2nd step: The experiment of a using learning organization model*

A developed design of a learning organization model and its manual were used in this experiment. Ten administrators and teachers were selected to participate in this experimental step. The experiment was divided into 3 procedures. Each procedure was performed at 3 levels. Firstly, the planning procedure conducted for an individual level. Secondly, the developing procedure conducted for a team level. Lastly, the evaluating procedure conducted for an organization level. The process lasted 4 months, from January 16 - May 30, 2017. PAR method was used throughout the process.

In the 2-week planning procedure, individual participants were involved in organizational diagnosis by evaluating the learning organization level with pre-development testing. This is the process of knowledge and motivation building. The participants were to encourage the understanding of value and importance of learning organization development. All participants were

administered with pre-test and attitude questionnaire to rate three levels of learning organization states: individual, team, and organization.

The 3-month developing procedure consisted of 10 activities. The participants participated in a team discussion by sharing comments and suggestions as well as by exchanging knowledge, advice, and ideas in order to transform the classroom into a learning unit. The PLC workshop was set up to promote states of professional learning community to enhance thinking skills and internal quality assurance. Group meeting on LINE (a freeware application service) was conducted in both classroom level and school level. Participants were assigned to report the activities' progress of resulting performances. Participants participated in self-learning activities facilitating with a variety of learning resources. Teachers' innovations and products were exhibited. Schools' visions and strategies were promoted in public relations activities. Other activities that enhance learning were promoted such as setting up schools' learning center. External learning activities were encouraged simultaneously with the promotion of learning via technology and how to bring it into practice. After all, the knowledge management plan was designed. This plan provided the design of knowledge dissemination, knowledge storage system, and how to distribute this knowledge on facebook page or LINE. Training courses on classroom research development and institutional research were set up. Eventually, the building of schools' formal culture was promoted as the final activity.

In the 2-week evaluating procedure, lessons learned and reflections on participants' performances and the use of a learning organization model were discussed with a weekly interval of 2-3 hours until it covered a total of 24 hours. To evaluate the model, the post-test and three questionnaires were distributed to 10 selected samplers: the administrators and teachers in the private schools in Chiang Mai province that provide early childhood services. The results were summarized and discussed.

***Populations:*** The 121 administrators and 728 teachers from 121 private schools in Chiang Mai province that provide early childhood services were the populations in this step.

*Participants:*

1. 315 participants were involved in the survey stage. (1$^{st}$ step)

2. 20 administrators and teachers from a private school in Chiang Mai province that provide early childhood services were involved in the model development workshop. (1$^{st}$ step)

3. 10 administrators and teachers were selected to participate in the experiment.

**Sampling Methods**

1. 315 participants in 1$^{st}$ step selected by multi-stage random sampling method**.** They consisted of 105 administrators and 210 teachers selected from 121 schools of 3 school-sizes: big; medium; and small**.** The school selection criteria was determined in term of its readiness, interest, willingness, needs, and the states of learning organization with the least to average levels. Besides, the selected private school must provide early childhood services.

2. 20 administrators and teachers in 1$^{st}$ step selected using purposive sampling method.

3. 10 administrators and teachers in 2$^{nd}$ step were purposively selected from Piman Dek Chiang Mai early childhood private school**.** The school selection criteria was determined in term of its readiness, interest, willingness, needs, and the states of learning organization with the least to average levels. Besides, the selected private school must provide early childhood services.

**Data collection:**

1. Survey questionnaires were distributed to 315 participants: 105 administrators and 210 teachers in 121 private schools in Chiang Mai province that provide early childhood services. The questionnaire consisted of four parts: demographic information; states, problems, components, and factors that enhance learning organization with the reliability at 0.01-0.99. (1$^{st}$ step)

2. The model development workshop was set up. The data collecting tools were the record of brainstorming conclusion, focus group discussion, and model evaluation. Nine experts in early childhood education were interviewed to evaluate the model. (1$^{st}$ step)

3. Pre-test, post-test, and three questionnaires were used to evaluate the results of learning organization model experiment. Prior to the experiment, pre-test and attitude questionnaire were administered. Pre-test was used to assess the knowledge and understanding on learning organization and factors that enhance learning organization. Attitude questionnaire was used to rate three levels of learning organization: individual, team, and organization. After the experiment was completed, post-test and attitude questionnaires were administered along with opinion and satisfaction questionnaires. An opinion questionnaire was used to rate the model in 4 aspects: utility, feasibility, propriety, and accuracy. A satisfaction questionnaire was used to evaluate participants' satisfaction. All data collected materials were investigated by nine experts in early childhood education with the IOC validity at 0.5. (2$^{nd}$ step)

### *Data analysis*

Mean and standard deviation calculations were performed to analyze the data collected from the survey questionnaires and pre- and post-test and three questionnaires on the experiment results. Content analysis was performed to analyze the collected data from the brainstorming workshop, focus group discussion, interview, lesson-learned and reflection.

### *Materials*

Survey questionnaires (with the reliability at 0.01-0.99), record of brainstorming conclusion, focus group discussion, and model evaluation (evaluated by 9 experts in early childhood education), pre-test, post-test, and three questionnaires: attitude; opinion; and satisfaction questionnaires (IOC validity at 0.5) were used in this study. The data collection and data analysis with details were presented in Table 1.

**Table 1:** Data collection and data analysis

| Data Collection | | | | |
|---|---|---|---|---|
| Population | | | | |
| 121 early childhood private schools in Chiang Mai province | | | | |
| Administrators (person) | | Teachers (person) | | Sum (person) |
| 121 | | 728 | | 849 |
| 1st step | | | | |
| Sampling Method | Participants | | | Material |
| | Administrators | Teachers | Sum | |
| multi-stage random sampling | 105 | 210 | 315 | Survey questionnaires |
| purposive sampling | 20 | | 20 | Brainstorming, focus group, and model evaluation record |
| 2nd step | | | | |
| Sampling Method | Participants | | | Material |
| | Administrators | Teachers | Sum | |
| purposive sampling | 10 | | 10 | Pre-test, post-test, and three questionnaires |

| Data Analysis |
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| |
| Mean and standard deviation |
| Content analysis |
| |
| Data Analysis |
| |
| Mean and standard deviation |

## Results

The findings of this study were in 2 parts: results on the development of a learning organization model for early childhood private schools in Chiang Mai province and users' manual; and results on the experiment of a learning organization model implementation. The details were as follows.

### *Results on the development of a learning organization model for early childhood private schools in Chiang Mai province and users' manual*

From the studies of learning organization model components and factors that enhance learning organization, six components and seven factors were revealed. Six components consisted of systematic thinking, individual wisdom, conceptual thinking, shared vision, team learning, and knowledge management. Seven factors that enhanced learning organization consisted of organization strategy, atmosphere and learning organization culture, motivation, leadership, structure propriety, learning technology, and management. They were analyzed in the process of development and the results were as follows.

***Model of learning organization for early childhood private schools in Chiang Mai province.***

The model consisted of 3 main parts: the state of components; development process; and the goals or outcomes, as follows.

The state of components

The first part was the state of learning organization components containing 2 sections: the components section and the enhancing factors section. The former one, consisting of 6 main components, was systematic thinking, individual wisdom, conceptual thinking, shared vision, team learning, and knowledge management. The latter, consisting of 7 main factors, was organization strategy, structure propriety, leadership, management, atmosphere and learning organization culture, motivation, and learning technology. Both sections were used as based asset applying throughout the whole process.

The development process

The second part was the development process. The duration of the whole development process was 4 months. This period was divided into 3 procedures (3 levels): planning (individual level), developing (team level), and evaluating (organization level).

1) The planning procedure lasted 2 weeks. It was defined as **a preparation stage of an individual level**. Each individual participant performed organizational diagnosis prior to the development. With the help of the researcher, each participant was helped to form their knowledge of the learning organization and understanding of the value and importance of a learning organization. The researcher, as a facilitator, simultaneously stimulated participants' motivation building.

2) The developing procedure lasted 3 months. It was defined as **a development stage of a team level**. Each participant, as a member of a team, participated in 10 activities together. The activities consisted of classroom to learning unit transformation, PLC workshop, public relations activities, knowledge distribution on facebook page or LINE, self-learning activities, innovations and products exhibition, schools' learning center setting, knowledge management planning, training on classroom research production, and schools' formal culture promotion.

3) The evaluating procedure covered 24 hours within 2 weeks (a 2-3 hours/day meeting in every week). It was defined as **an evaluation stage of an organization level**. All participants in the organization participated in an evaluation of the model implementation. They also evaluated their performances and improvement in both skills and practices through reflection and lessons learned discussion. Then, the reflection and discussion results were summarized.

The goals or outcomes

The last part was the goals or outcomes of each stage in the development process. The outcome of the preparation stage was the improvement of the participant's attitude, knowledge and understanding toward learning organization, participant's self-learning, and motivation. The outcomes of the development stage were the learning organization building plan and its users' manual. The development of state and level of learning organization reflecting from the improvement of participants' performances, participants' satisfaction of learning organization, and model of learning organization were the outcomes of the evaluation stage.

*Users' manual*

The Users' manual of the learning organization model consisted of 5 units.

Unit 1 Introduction
Unit 2 Basic knowledge on learning organization
Unit 3 Learning organization model
Unit 4 Model implementation
Unit 5 Evaluation and assessment of the development

Four aspects: utility ($\bar{x}$ = 4.58), feasibility ($\bar{x}$ = 4.63), propriety ($\bar{x}$ = 4.57) and accuracy ($\bar{x}$ = 4.60), of the model were investigated by 9 experts with excellent level. The model of learning organization for early childhood private schools in Chiang Mai province was summarized as shown in Figure 1.

**Figure 1:** Learning Organization Model for early childhood private schools in Chiang Mai province
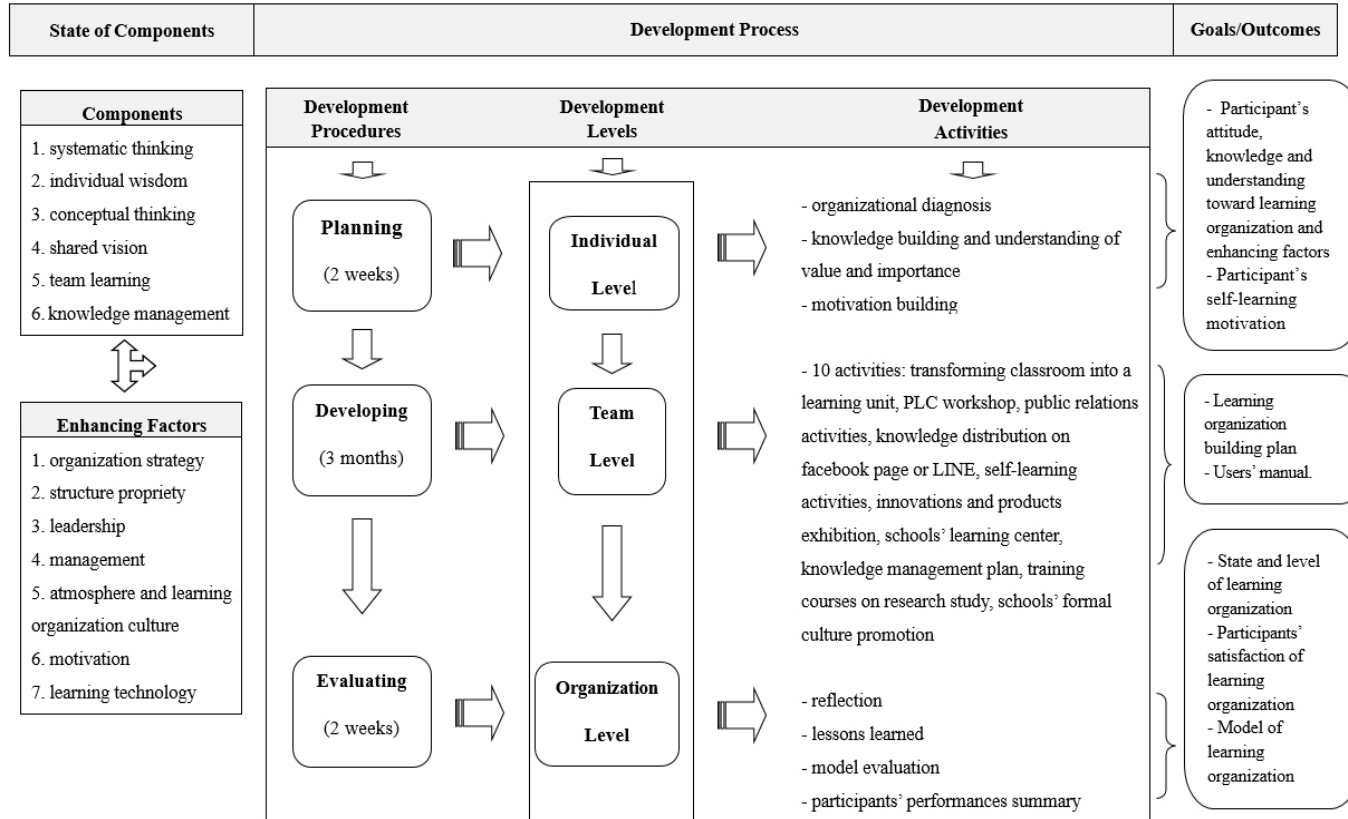
***Results on the experiment of learning organization model implementation***

To examine the model implementation results, the study was designed to assess the improvement of

1) participants' knowledge and understanding of learning organization and factors that enhance the learning organization,

2) participants' attitude toward the state and level of learning organization: individual, team, and organization,

3) participants' opinion toward the learning organization model in 4 aspects: utility, feasibility, propriety, and accuracy, and

4) participants' satisfaction toward the implementation of learning organization. The followings were the results on participants' improvement after the experimental step.

***Participants' knowledge and understanding on learning organization and factors that enhance learning organization***

The mean scores of knowledge and understanding on both learning organization and factors that enhance learning organization were higher after the process of development. The former was at a below average level ($\bar{x}$ = 2.27) before the development process and at a good level ($\bar{x}$ = 4.05) after the development process. The latter was at a below average level ($\bar{x}$ = 2.31) before the development process and at a good level ($\bar{x}$ = 4.07) after the development process. These results indicated positive improvement of participants' knowledge and understanding on both learning organization and factors that enhance learning organization. (See Table 2)

**Table 2:** Participants' knowledge and understanding

( n = 10 )

| Items | Before | | | After | | |
|---|---|---|---|---|---|---|
| | $\bar{x}$ | S.D | Knowledge and Understanding | $\bar{x}$ | S.D | Knowledge and Understanding |
| Learning Organization Components | 2.27 | 0.89 | Below average | 4.05 | 0.70 | Good |
| Factors that enhance learning organization | 2.31 | 0.84 | Below average | 4.07 | 0.66 | Good |

*Participants' attitude toward the state and level of learning organization in three levels: individual, team, and organization*

The overall score of participants' attitudes toward the state and level of learning organization was improved after the experimental process in all three levels – individual, team, and organization. Before the experiment, the overall mean score was at an average level ($\bar{x}$ = 3.28). After the experiment, it was at an excellent level ($\bar{x}$ = 4.56). When considering each level, the mean scores respectively showed from high to low as follows: team level; individual level; and organization level. For the team level, the mean score was at a good level ($\bar{x}$ = 3.52) before the experiment and it was at an excellent level ($\bar{x}$ = 4.60) after the experiment. For the individual level, the mean score was at an average level ($\bar{x}$ = 3.50) before the experiment and it was at an excellent level ($\bar{x}$ = 4.55) after the experiment. For the organization level, the mean score was at an average level ($\bar{x}$ = 2.82) before the experiment and it was at an excellent level ($\bar{x}$ = 4.53) after the experiment. These results indicated positive improvement of participants' attitude toward the state and level of learning organization in all three levels: individual, team, and organization (See Table 3)

**Table 3:** Participants' attitude toward states of learning organization

( n = 10 )

| Items | Before | | | After | | |
|---|---|---|---|---|---|---|
| | $\bar{x}$ | S.D | States of Learning Organization | $\bar{x}$ | S.D | States of Learning Organization |
| Individual Level | 3.50 | 0.42 | Average | 4.55 | 0.48 | Excellent |
| Team Level | 3.52 | 0.54 | Good | 4.60 | 0.50 | Excellent |
| Organization Level | 2.82 | 0.61 | Average | 4.53 | 0.50 | Excellent |
| Total | 3.28 | 0.52 | Average | 4.56 | 0.49 | Excellent |

*Participants' opinion toward the learning organization model in 4 aspects: utility, feasibility, propriety, and accuracy*

The mean scores of participants' opinion toward the learning organization model in 4 aspects: utility, feasibility, propriety, and accuracy were at a high level at the end of the development process. When considering each aspect, the mean scores respectively showed from high to low as follows: feasibility

(Excellent level with x̄ = 4.60); utility (Good level with x̄ = 4.50); propriety (Good level with x̄ = 4.47); and accuracy (Good level with x̄ = 4.40). These results indicated positive improvement of participants' opinion toward the learning organization model in all 4 aspects. (See Table 4)

**Table 4:** Participants' opinion toward 4 model aspects

| | End of process scores | | |
|---|---|---|---|
| **Items** | **Level of Evaluation** | | **Opinion toward Model Aspects** |
| | **x̄** | **S.D** | |
| Utility | 4.50 | 0.47 | Good |
| Feasibility | 4.60 | 0.57 | Excellent |
| Propriety | 4.47 | 0.57 | Good |
| Accuracy | 4.40 | 0.46 | Good |

(n = 10)

***Participants' satisfaction toward the implementation of learning organization***

The mean scores of participants' satisfaction toward the implementation of the learning organization were at a high level at the end of the development process. When considering the top 4 items, the mean scores respectively showed from high to low as follows: respecting other people's opinions (Highest level with x̄ = 4.90); openness to experiences (Highest level with x̄ = 4.80); ease of use (Highest level with x̄ = 4. 70); and cost-effectiveness (Highest level with x̄ = 4.70). The rest 16 items also showed a high level of mean scores from 4.10 to 4.50. These results indicated a positive improvement of participants' satisfaction toward the implementation of learning organization.

**Table 5:** Participants' satisfaction toward the implementation of learning
organization

(n = 10)

| Items | End of process scores | | Satisfaction toward Model Implementation |
|---|---|---|---|
| | Level of Evaluation | | |
| | $\bar{x}$ | S.D | |
| - Respecting other people's opinions | 4.90 | 0.32 | Highest |
| - Openness to experiences | 4.80 | 0.48 | Highest |
| - Ease of use | 4.70 | 0.48 | Highest |
| - Cost-effectiveness | 4.70 | 0.52 | Highest |
| - Assisting personal learning | 4.30 | 0.42 | High |
| - Assisting creative thinking | 4.30 | 0.48 | High |
| - Creating knowledge exchanging atmosphere | 4.20 | 0.42 | High |
| - Creating new concept | 4.30 | 0.48 | High |
| - Developing the use of learning technology | 4.30 | 0.48 | High |
| - Assisting learning new innovation | 4.20 | 0.42 | High |
| - Improving personal mastery | 4.10 | 0.32 | High |
| - Developing human resources | 4.30 | 0.48 | High |
| - Showing school's advantages and disadvantages | 4.20 | 0.42 | High |
| - Creating satisfaction with the model | 4.20 | 0.42 | High |
| - Being happy by using the model | 4.20 | 0.42 | High |
| - Being happy to exchange knowledge | 4.10 | 0.32 | High |
| - Being happy to bring the model to be used with school | 4.10 | 0.32 | High |
| - Completely willing to participate | 4.10 | 0.32 | High |
| - Willing to accept knowledge from colleague | 4.50 | 0.52 | High |
| - Willing and being happy to be in the team | 4.50 | 0.52 | High |
| **Overall** | **4.35** | **0.43** | **High** |

**Discussion/Conclusion**

The findings of this study, the model of teachers' professional learning community for the non-formal and informal educational centers in Thailand's upper northern region, were discussed in 2 parts. The first one was the results on the development of a learning organization model for early childhood private schools in Chiang Mai province and users' manual. The second one was the results on the experiment of a learning organization model implementation.

*Discussion of the results on the development of a learning organization model for early childhood private schools in Chiang Mai province and users' manual*

1. The findings revealed six components of the model these are systematic thinking, individual wisdom, conceptual thinking, shared vision, team learning, and knowledge management. The design of this learning organization model based on these six components was indicated to promote participants' improvement in various aspects as shown in the tables above. This is in agreement with many scholars regarding early childhood education. **Systematic thinking** is often applied to management. It will help us to eliminate the problem of complexity of work to change and improve the organization. In addition, the **individual wisdom** component also gives an individual member the opportunity and capability to learn. They have the freedom to make decisions which can reduce the need to rely on others in order to solve the problems. They were continuously motivated to extend the ideas of their own learning styles to produce fruitful and fully creativity and, at last, create their own innovation. On the part of the **conceptual thinking**, it reflects the mental model, behavior, and consciousness of the people in that organization. The learning organization will be formed when all members have a conception of thought and reflect the correct image of their organization. They must have a **shared vision** to develop **team learning** and bring their ideas or thoughts or knowledge into practices by forming **a knowledge management** project. Then, they can now look forward to achieving their mutual desires. (Senge, 1990; Marquardt & Reynolds, 1994; Marquardt, 1996, 2002; Panich, V. 2007)

2. The findings revealed seven factors that enhance the learning organization these are organization strategy, structure propriety, leadership, management, atmosphere and learning organization culture, motivation, and

learning technology. The design of this learning organization model based on these seven factors was also shown to promote participants' improvement in various aspects as displayed in the tables above. Scholars regarding early childhood education stated that organization vision, mission and strategy are direct influencing factors. School structure and academic leadership are indirect influencing factors. Management and practices are the overall influencing factors. In addition, motivation to work, working facilities, environment that is properly managed and innovative and technological advancement also influence in promoting learning organization. Members can learn the benefits and apply new technologies for effective use. Beside, learning organization culture such as morale in the work, praising, and rewarding can encourage the members to be more enthusiastic. (Sroinam, 2004; Duangchatom, 2006)

3. The findings revealed the design of a learning organization model that comprised of 3 development stages: planning, developing, and evaluating. Each stage operated at 3 levels: individual, team, and organization. The development consisted of 10 activities that applied 6 components and 7 factors to promote participants' improvement in all desired aspects. The findings found that the design of this model can influence the achievement of participants' improvement. The process of using a variety of methods and activities to develop a learning organization can build knowledge, understanding, and learning skills of the participants. This led to continuous self-development skills as shown in the concept of 5 main principles in learning organization implementing as follows.

3.1 The principle of motivating the desire to learn and promote working creativity through stimulation.

3.2 The principle of listening skills, open mind, and acceptance the opinions of others.

3.3 The principle of the use of multiple sources of information as a basis for decision making.

3.4 The principle of developing and promoting teamwork among team members.

3.5 The principle of promoting systematic thinking, describing the importance, and prioritizing tasks through the information and knowledge exchange in learning. (Senge, 1990, 1994; Chanpoh, 2003; Khunpleum, 2005)

### *Discussion of the results on the experiment of learning organization model implementation*

The test on knowledge and understanding on learning organization and factors that enhance learning organization of all administrators and teachers in early childhood school in Chiang Mai province showed positive results. The administrators and teachers have gained a better understanding of learning organization and factors that enhance learning organization after being developed. This corresponds to the result of Phimmat Rangsansrit's study (Rangsansrit, 2007). The researcher studied the use of the learning organization development model in large secondary schools under the jurisdiction of the Office of the Basic Education Commission. It was found that the model was positively correlated with the learning organization of secondary schools with statistical significance at .05.

The evaluation of the administrators and teachers' attitude toward the state and level of learning organization in three levels: individual, team, and organization also showed positive results. It was found that the majority's opinion toward the designed model was of an excellent quality in all 3 levels. Besides, the results of the administrators and teachers' opinion toward the learning organization model in 4 aspects: utility, feasibility, propriety, and accuracy were also positive. A good to excellent score of an evaluation at the end of the development process confirmed the quality of the model in all 4 aspects. It is consistent with the findings of the study on the development of the learning organization model in large secondary schools (Rangsansrit, 2007). The study found a high level of positive correlations between learning organization development model and all 12 aspects specified in the Learning Organization for Chiang Mai Early Childhood Schools Guidebook: stage 3 with statistical significance at .05. In this study, the opinion toward the models' quality in 4 aspects has passed the average score. So the model was confirmed as being qualified. In addition, the model positively impacted the state of the learning organization of large secondary schools. Administrators and teachers agree that the model is appropriate and feasible for effective learning organization development.

The evaluation of the administrators and teachers' satisfaction toward the implementation of learning organization was additionally positive. It may be

indicates that the satisfaction may have some influences on their learning and vice versa. This corresponds to the research of Viman Vannakum (2010). The development of professional competencies of small school administrators under the Office of the Basic Education Commission found that satisfaction with model training was at the highest level. However, it is not in line with the finding of the research on the learning organization pattern: a case study of the Kaiser learning organization model (Kaiser, 2000). Its finding indicates that satisfaction has no influence on the learner's learning.

**Recommendations**

To develop school management quality, researchers or administrators or teachers should study and evaluate all aspects of learning organization to get a clear path for its development design. The qualified aspects of learning organization can transform simple school environment into effective learning organization.

Researchers or administrators or teachers should classify each 3 levels: individual, team, and organization, separately on synthesizing the research findings in order to get an in-depth concept of learning organization practices.

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