

Development of a Model for Enhancing the Learning Skills of Students in Early Childhood Education Using a Community-based: Case Study on Child Development Centers in Nakhon Nayok Province

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Abstract

This research aims to develop a model for enhancing the learning skill of Students in Early Childhood Education using community-based learning. For the developing of the model, a case study of child development centers in Nakhon Nayok province has been conducted. Later a broader study throughout the central region of Thailand has been conducted in order to assess the effectiveness of the model. The research methodology consists of two steps: 1) Developing the model using document synthesis and an in-depth interview with fifteen experts in early childhood education management using a structured interview. The suitability of the model was examined by 10 experts forming a focus group. Then the feasibility of applying the model in educational management has been examined using questionnaires. The population was 156 people, consisting of the heads of child development centers and academic officers under the jurisdiction of the local administrative organization, Nakhon Nayok Province. 2) The effectiveness of the model has been examined by using confirmatory factor analysis of a sample group of 560 people, which derived

from multi-stage sampling, consisting of the heads of child development centers in the central region. The questionnaire with 50 questions had a reliability value of 0.98. The findings are as follows:

1. The model is suitable. It consists of 3 main components and 9 sub-components. The first main component is preparation, which includes 1) a community potential analysis, 2) a curriculum preparation/learning management plan, 3) teacher readiness preparation and 4) educating parents. The second main component is learning management, consisting of 1) physical and movement development, 2) emotional and mental aspects, 3) social aspects, and 4) intelligence. The third main component is learning assessment. The indicators for all components range in the average between 3.62 - 4.28, and hence show the suitability of the developed model.

2. The efficiency of the model was consistent with the empirical data based on the chi-square value 23.65, with 16 degrees of freedom and a probability value of .09. Every variable component is positive, with values ranging from 0.89 to 0.94 with statistical significance at the level of .01.

Keywords: enhancing learning skills, community-based learning, child development center

Introduction

The main goal of national education development is to help learners in becoming qualified individuals, to develop learning processes for the growth of individuals and the society and to create a suitable environment for a learning society. The guiding factors that encourage people to learn continuously throughout their lives have been laid down in the Thai National Education Act 2010. In order to meet the quality objectives mentioned above, it requires teachers who have skills in learning management and an overall professional attitude and learners with a high motivation. Especially in the 21st century era, learning management must support and exercise an innovative, new class management. To develop the learners' preconditions continuously and sustainably and according to the educational management principles under Section 22 the education management must adhere to the principle that all learners can learn and develop themselves and consider students to be the most important factor. The educational management process must encourage learners to develop in a natural and holistic way.

Community-based learning management is well-known in the United States, Australia, Africa and Asia, called Service Learning (SL), which is a form of learning through experience and designed to promote learning and develop learners by allowing them to participate in activities related to people and community needs (Flecky, 2011: 2). Teaching, learning and promoting community-based teaching is intended to enable students to get to all social sectors, learning in the real world, understanding the practices of people within the society, having more social responsibility, being able to understand the learning process and enable students to learn about complex social issues and different cultures. The arrangement of teaching and learning activities should be versatile in order to be consistent with the various

levels of potential of learners. Teaching management plans are to be focused on students and to convey ethics and values, focus on the interests of learners, provide the content of learning that is related to the community or daily life needs and local wisdom. A versatile and practical approach - including extra-curricular activities such as rallies, clubs, and volunteer activities and using a variety of techniques and materials – should teach learners to be creative self-builders, while interacting with other learners and teachers.

As a result of the activities mentioned above, learning management should lead to develop the brain by applying acquired knowledge to new experiences, allowing children to use both the left and the right halves of the brain by practicing through play, allowing children to learn with happiness. In early childhood educational management, the school does not always provide sufficient means for learning. There are other places that can provide additional and sometimes even more suitable learning resources for early childhood education than schools. Therefore, we should explore those opportunities for direct learning, find supplementary sources for experiences and apply them appropriately.

Research in education economics over the past decades has indicated that early childhood development plays an important role in building human capital for the country's population, which will increase the productivity of society and reduce social costs that may be caused by crime and drug addiction. Besides, early childhood development can also help reduce the economic and social inequality of a country. Heckman (2010) from the University of Chicago points out that investment in early childhood has a benefit-to-cost ratio of approximately 7-12: 1 or equivalent to an internal rate of return of 10 percent per investment unit. While learning happily, providing an appropriate environment, caring for habits and proper nutrition and

assessing child development correctly will enable children to develop to their full potential. Participation and knowledge building in understanding early childhood education for parents, communities and society, as well as changing the role of early childhood teachers and continuing teacher development are also important.

From the above statement, it can be said that learning resources that are close to and consistent with the context of society can help to enhance the learning skills of learners effectively. Therefore, it seems beneficial to develop a model for enhancing the learning skills of early childhood by using the community-based learning; in this case based on a case study of child development centers in Nakhon Nayok province, which will be used as a learning management model that is consistent with the learning resources available in the community. It may serve as a guideline for providing more effective learning experiences for early childhood learners.

Research objectives

1. To develop a model for enhancing the learning skills of students in early childhood education by using community-based learning.
2. To examine the effectiveness of the model for enhancing the learning skills of students in early childhood education by using community-based learning.

Research Methodology

The research has been conducted in two steps:

1. Development of forms using document synthesis methods and in-depth interviews with 15 experts in early childhood education management using a

structured interview. The suitability of the model has been examined by ten experts forming a focus group. Then the feasibility of applying the model in educational management has been examined using questionnaires. The population was 156 people, consisting of the heads of child development centers and academic officers under the jurisdiction of the local administrative organization, Nakhon Nayok Province. Data analysis has been conducted considering the mean of the population (μ) and standard deviation (σ).

2. Finding the effectiveness of the model for enhancing the learning skills of early childhood students using the community-based learning by using confirmatory factor analysis techniques from the multi-stage sampling group of 560 of the head of child development centers in the central region. The questionnaire of the developed model consists of 3 main components and 9 sub-components, a total of 50 questions, as follows:

The preparation component consists of 4 sub-components:

- 1) Community Potential Analysis, 6 questions
- 2) Creation of curricula/learning management plan, 5 questions
- 3) Preparation for teachers, 9 questions
- 4) Providing knowledge for parents, 5 questions

The learning management component consists of 4 sub-components:

- 1) Body and motor skills development, 5 questions
- 2) Emotional and psychological aspects, 5 questions
- 3) Social aspects, 5 questions
- 4) Intelligence, 4 questions

Learning evaluation component, 6 questions

The reliability of the questionnaire is 0.98. The research data has been manually conducted by submitting documents, collecting and analyzing data by using a confirmatory factor analysis in a process as shown in Figure 1.

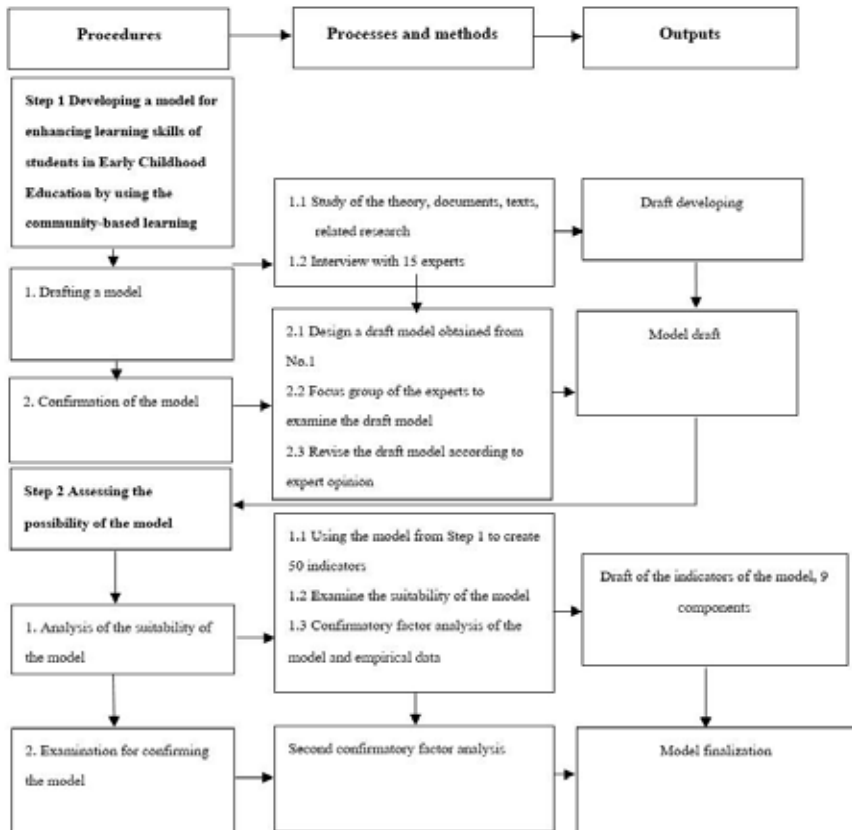


Figure 1: Procedures and methods of conducting research

Results

Based on the results of the development of the model for enhancing learning skills of students in Early Childhood Education by using the community-based learning, the conclusions are as follows:

1. A model consists of 3 components as follows:

1) The Preparation component consists of the process of analyzing community potential, creating courses/learning plans, preparing teachers and educating parents

2) The Learning management component consists of developing various potentials of the young learners, namely body and motor skills, emotional and mental capabilities, social skills and intellectual ability.

3) The Learning assessment component is measurement and evaluation based on the development of the learners.

Details of the model as shown in Figure 2

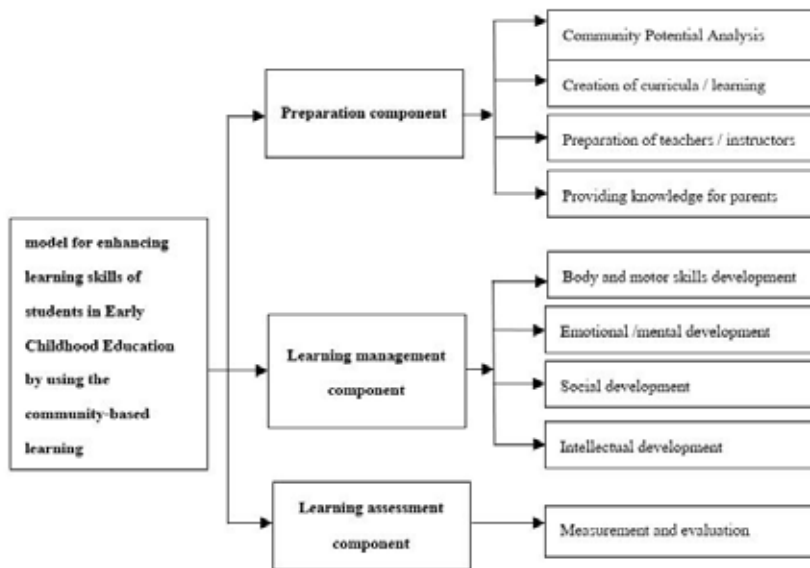


Figure 2: The model for enhancing learning skills of students in Early Childhood Education by using the community-based learning

2. The results of the examination of the appropriateness of implementing activities in the model of enhancing the learning skills of early childhood children using community-based learning are as follows:

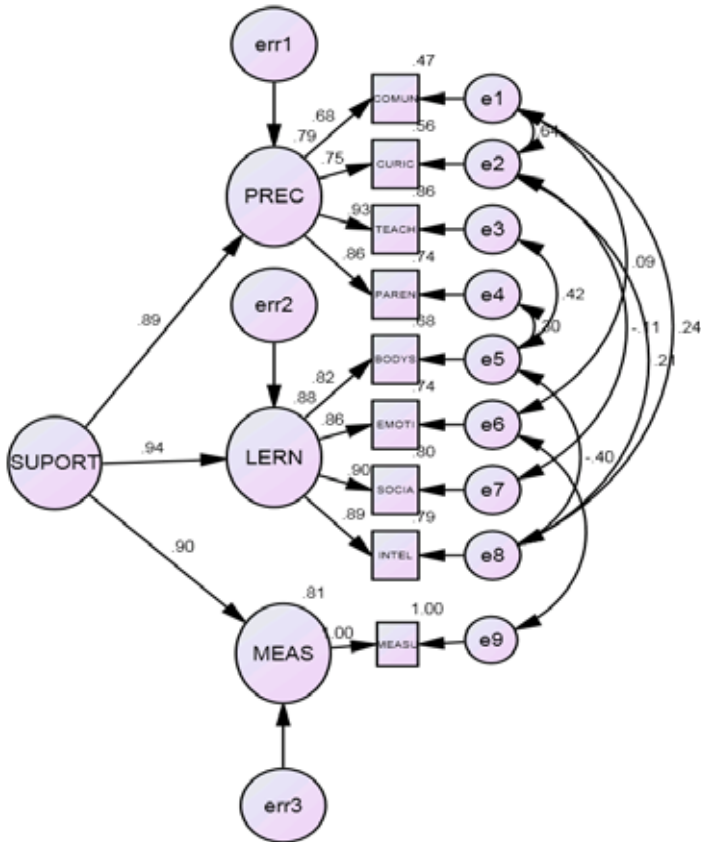
1) Preparation component has found to be appropriate at a high level. The most appropriate activities include teachers having to interact with community leaders, parents and people in the community continuously, behave as a good model and be trusted by people in the community.

2) Learning management component has found to be appropriate at a high level. The activities that the heads of the child development center consider the most appropriate, namely teachers and parents must promote and educate good

habits about health care, such as washing hands before eating or after entering the toilet, brushing, and selecting healthy foods.

3) Learning assessment component has found to be appropriate at a high level. The most appropriate activities, namely using the portfolio to assess child learning development from activities that students have practiced from the learning resources that teachers have designed and managed to teach continuously.

3. According to an analysis of components to find the effectiveness of the model, the results showed that the model is consistent with the empirical data on a good level, which is determined by the chi-square value of 23.65, 16 degrees of freedom, with a p-value of .09. The second confirmatory factor analysis showed that the weight of 3 components – preparation, learning management and assessment, are .89, .94 and .90, respectively, with statistical significance at level .01. The prediction coefficient (R^2) of each component is .79, .88 and .81 respectively. These statistical values confirm that the 3 components – preparation, learning management and assessment, are a component of the learning skills development of early childhood by using the community-based learning.



$$\chi^2 = 23.65 \text{ df} = 16 \text{ p} = 0.09, \text{GFI} = .99, \text{CFI} = 1.00, \text{RMSEA} = 0.03$$

Figure 3: The second confirmatory factor analysis shows the component weight of the model for enhancing learning skills of students in Early Childhood Education by using the community-based learning

Discussion

Based on the research results regarding the model for enhancing learning skills of students in Early Childhood Education by using the community-based learning, there are topics to be discussed as follows:

1. The model for enhancing learning skills of students in Early Childhood Education by using the community-based learning consists of 3 components, namely (1) the preparation component which has the following steps:
 - 1) Analysis of the potential of the community regarding a fruitful workflow between their teachers and local leaders of the community. Goals and desirable characteristics that are wanted to be achieved in the work with learners have to be determined in order to apply local wisdom and local learning resources to the process of learning. The results of the analysis will then be included into the following component.
 - 2) Preparation of the curricula, lesson plans, learning management plans: the content will be taken from the community analysis in accordance with local needs and options. The content to bring into the learning management process is supposed to reflect the local wisdom and the identity of the community. That way, the young learners will acquire the desired characteristics according to the community's needs.
 - 3) Preparation for teachers, which means creating an understanding of the role of teachers, who need to know about local learning resources. For teachers in the field of community-based learning it is essential to be very well networked with in their communities, since the implementation of their learning management strongly emphasizes the use of local resources and teaching materials. The teachers need to interact continuously and skillfully with the community and at the same time be well trained in developmental psychology and childcare.
 - 4) Educating parents includes activities to promote not only the integration of the school into the community but

also the parents into the teaching process. Parents should be involved in various activities in order to raise their awareness and responsibility towards their children's learning process. Parents are to actively support the teachers. (2) Learning management consists of promoting various aspects of child development as follows:

- 1) Body and motor skills focuses on learning management by using learning resources in the community, allowing children to practice, be safe and promote good health habits.
- 2) Emotions and minds focus on the integration of and support from villagers, promoting local wisdom and providing local learning resources. Temples may contribute in terms of religious practices in order to internalize ethics and self-control abilities.
- 3) Social skills need to be practiced for children to be able to socialize and become assertive while remaining socially responsible at the same time.
- 4) Intelligence is of the essence for advanced learning. It should - among other teaching materials and learning resources available in the community - also be promoted by using media, learning centers, community educators and external experts.

(3) The learning assessment focuses on activities that would monitor the activities and experiences of the young learners. The monitoring should – at least sporadically - cover the whole range of the portfolio and should include development reporting to the parents as well as their participation in the assessing process. Based on the findings of the research, it is found that this model corresponds to the Learning Reform Subcommittee of the Ministry of Education of Thailand that offers learning management methods that emphasize on the importance of teacher roles in educational management that focuses on learners in the following 3 main ways:

- 1) The role of teaching preparation, including preparation of learning materials, provision of learning resources and teaching planning.
- 2) Teaching roles involves the creation of a stimulating atmosphere in an appropriate environment, the motivation of

learners, and to facilitate learning and learning activities as intended. 3) Evaluation in order for the learning results to meet the desired objectives. Moreover, there is the result of the study of Disayuit Buajoom, Ungsinun Intarakamhang, Pannee Boonprakob and Supaporn Thanachanan (2014) who have researched on the development of a community-based learning management model that is supposed to create interest and skills. Their model consists of 7 steps: (1) studying the potential of the community, (2) encourage people in the community and schools in order to have the power to manage education together, (3) study the needs of the local career development of students, (4) develop local programs, (5) arrange practical learning activities, (6) organize learning enhancement programs and (7) evaluation of learning outcomes. Their results are in line with the results of this research, both steps and processes, such as the need to study the potential and needs of the community, the development of concepts of promoting learning among learners and from both teachers and parents, and furthermore requesting the cooperation of people from the community, including the monitoring of learning outcomes. (sirinapa nammanee, 2014)

2. The result of the assessment regarding the appropriateness in applying the model for enhancing learning skills of students in Early Childhood Education by using the community-based learning shows that the three components of the model are appropriate on a high level. This result is consistent with the learning management process of the Learning Reform Subcommittee of the Ministry of Education of Thailand (2000: 22-28) and in accordance with the research results of Somyot Lamapisan, Saifon Khamok and Wanichaya Srivichai (2009), who researched on early childhood development by using community-based learning resources by community participation (a case study of child development centers in

the Nam Phrae Sub district Administration Organization). Their result has indicated that education from community learning sources gave developmental assessment results at level 3, meaning that children can do activities on their own.

3. Based on the analysis of the efficiency of the model developed with empirical data, it is found that the model is consistent with the empirical data. That shows that all 3 latent variables are valid components of this model and can be applied to enhance the learning skills of early childhood students in other areas appropriately. In addition, the results of the second confirmatory factor analysis confirmed the efficiency of the model. The sample group in the central region has similar characteristics and teaching management as in Nakhon Nayok. This model can set guidelines for teachers to implement 3 useful steps, which are 1) preparation in both dimensions of community analysis, curriculum preparation, writing lesson plans and teaching outcomes, teacher preparation for teaching management and preparing parents for knowledge and learning resources to promote children's learning skills at the same time. The educational management for young children should use the community as a base (Warakorn Samkoset & et al, 2010) 2). In terms of learning management, teachers have a role in many dimensions that are consistent with the development of children in education management by using community participation. This is in line with what Duangporn Toapap (2013) has said, namely that learning management should give priority to 5 aspects of development, namely physical, emotional, mental, social and intellectual development, and 3) roles in assessment, teachers must measure and evaluate results that reflect real conditions and have a variety of processes. This is consistent with the results of this research as well as with the results of Disayuit Buajoom, Ungsinun Intarakamhang, Pannee Boonprakob and Supaporn Thanachanan (2014).

Recommendations

Suggestions for applying these research results are as follows:

1. The results of the study showed that promoting the development of learning skills of early childhood students should allow the community to participate in designing courses, in learning activities, in assigning learning resources to learners and determining on how to measure and evaluate the development of learners.
2. In organizing activities to promote learners' learning skills, the development must be balanced to the full potential, considering physical, emotional, social and intellectual aspects, and emphasize real world activities of learners. Both learning resources and knowledge should partially derive from the local community.
3. This research should be used to study and evaluate the effectiveness of this model for community-based learning in order to enhance the learning skills of young children and to promote equality and educational opportunities.

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