



Development of Learning Process Model: The Morals and Ethics of Early Childhood in 21st Century

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Article info

Article history:

Received: 29 January 2023

Revised: 20 June 2023

Accepted: 28 June 2023

Keywords:

Learning process model, Physical literacy, Morals and ethics, Early childhood

Abstract

One of essential morals and ethics for early childhood in the 21st century is self-discipline. The research objective consisted of 1) to develop the model of learning process of the morals and ethics of the early childhood in the 21st century, 2) to study effectiveness of the implementation of model of learning process of the morals and ethics of the early childhood in the 21st century, 3) evaluate and acceptance of the model of learning process of the morals and ethics of the early childhood in the 21st century.

This research and development was organized into 4 phrases. A sample of 80 pupils in kindergarten 3 under the Nakhonnayok Primary Educational Service Area Office was recruited. Cluster random sampling was employed in this research. The experimental group had 40 pupils who used the model of learning process of the morals and ethics of the early childhood in the 21st century, and the control group of 40 pupils who learned by using the traditional learning process model. Research instruments consisted of 1) lesson plans of the learning of morals and ethics of the early childhood in the 21st century, 2) evaluation form of the morals and ethics behavior of the early childhood in the 21st century, 3) evaluation form of the physical literacy of the early childhood, and 4) evaluation and acceptance form for the model of learning process of the morals and ethics of the early childhood in the 21st century. The research design used in this study was the pre-test/post-test control group design. The obtained data was analyzed using mean (\bar{x}) standard deviation (SD), t-test dependent and content analysis.

The results found the following: 1) The model of learning process of the morals and ethics of the early childhood in the 21st century consisted of 7 dimensions, and the efficiency was 81.12 / 82.23, 2) Students in the experimental group achieved higher scores than the control group at statistical significance at the .01 level, and 3) The model of learning process of the morals and ethics of the early childhood in the 21st century was suitable at the highest level.

Introduction

The fundamental morality in society is “Self-discipline” because discipline helps an individual to control themselves, restraint from doing wrong, and do good things by themselves. A prior study found that childhood morals tends to decline due to several reasons: 1) population, the number of single families increased, and children lack social skills, 2) interpersonal relationship, children lack interpersonal relationship and they are aggressive, 3) lack of knowledge and understanding in accepting other people's opinions, and 4) staff or teachers at schools lack skills and ability to promote prosocial behavior (Satchel, 1992)

Cultivating self-discipline should start from birth to 5 years old. It is the most important period in paving the foundation for the quality of life of children who will develop into adulthood in the future. If children are well promoted, they will grow up to be quality adults who can live happily in the 21st century society and develop the country further. Consequently, the government has arranged for the promotion of morals and ethics. It is set in the Early Childhood Education Curriculum B.E. 2560 (Ministry of Education, 2017) to develop all children to achieve quality physical, emotional, mental, social, and intellectual development, become happy to learn according to their age, have life skills, and act according to the philosophy of sufficiency economy, be disciplined, and recognize being Thai (Ministry of Education, 2017). Learning management of early childhood is integrated with activities through various play activities which is consistent with the royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, who provides an integrated education through play and learning in which teachers insert knowledge while children interact in play (Tantipalachiva, 2007).

Nowadays, children's lifestyles, learning, and play have changed. Children have reduced play time, and they have inappropriate physical movements according to the child's development. It reflects the great need to allow children to have regular physical activity because physical activities will help children at early childhood age to develop appropriately, and help children to practice self-discipline (World Health Organization, 2010; Marheni et al., 2021). In addition, the development of movement from a young age will result in physical literacy, enabling them to move with confidence, and controlling various movement. This provides positive effects on brain skills for executive functioning for successful life, especially inhibition and attention, and also affects other ages (Da Silva & Arida, 2015).

Researchers are interested in applying the concept of constructivist theory to design a learning process model that allows learners to play the most important role in the learning process model, exchanging opinions and experiences, gathering information and summarizing opinions by using a variety of interesting learning process activities that will encourage students to apply their own experiences to connect new knowledge from interactions in learning together and build self-knowledge (Settle, 2011). This is to enable early childhood to develop morals and ethics in terms of self-discipline and have a good quality of life.

Objectives

The research objective consist of 1) to develop the model of learning process of the morals and ethics of the early childhood in the 21st century, 2) to study effectiveness of the implementation of model of learning process of the morals and ethics of the early childhood in the 21st century, and 3) to evaluate and accept the model of learning process of the morals and ethics of the early childhood in the 21st century.

Literature review

Learning Process Model refers to a pattern of active learning for early childhood that was invented and designed based on constructivism. The children can gain experiences through activities using Physical Literacy for integration resulting in effective physical movements. Therefore, children can develop confidence and achieve variety of learning from their direct experiences in order to develop comprehensively in all aspects. The principle consists of 4 steps: 1) The study of related theoretical concepts 2) Model development 3) Model verification 4) Improving and presenting the model.

Morals and ethics refers to the virtues of early childhood in the 21st century, acting conscientiously and resulting in responding appropriately to the situation. Morality and ethics are what lead to success, achieving learning goals and living happily in society. Morality and ethics consist of 1) Patience 2) Responsibility and 3) Compliance with social rules.

Physical Literacy refers to the physical movements with accuracy and confidence, accompanying with the understanding of how to perform those movements to engage in physical activity as a part of day-to-day life. Physical Literacy consists of: 1) Motivation and confidence, 2) Physical ability, 3) Knowledge, and understanding of movement and 4) Encountering physical activity in active lifestyle.

Early Childhood refers to children aged from 5-6 years old, attending their 3rd year of kindergarten under the Office of Primary Education Regional Area Office Nakhon Nayok, Nakhon Nayok Province, in academic year 2021.

Conceptual framework

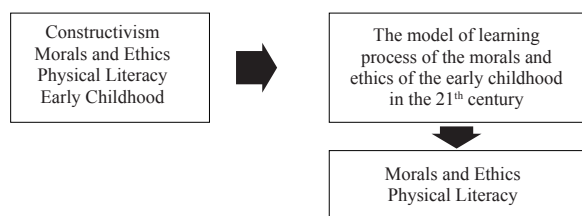


Figure 1 Conceptual framework

Research methodology

1. Population and samples

The subjects were the early childhood studying in Kindergarten 3, aged 5-6 years old in schools under the office of primary education regional area office Nakhon Nayok, Nakhon Nayok Province, in academic year 2021 from 4 schools, 20 subjects from each school, with the total number of 80 subjects. The students from each school were mixed-ability of early childhood including morals, ethics, and physical literacy.

2. Research instruments

This research had 4 instruments as follows;

2.1 Lesson plans of the learning process of the morals and ethics of the early childhood in the 21st century consisted of 24 plans. The plans were created by following the Likert's criteria with rating scale of 5 levels and were examined by 5 experts who approved the plans at a very high level ($\bar{x} = 4.79$, $SD = 0.52$).

2.2 The morals and ethics evaluation form of the early childhood in the 21st century was an observation form which had 12 items and full score was 36 points. The Cronbach's alpha reliability test findings showed between 0.756-0.788, item difficulties were between 0.24-0.55, and discriminant were between 0.27-0.66.

2.3 The physical literacy of early childhood was an observation form which had 16 items and full score was 48 points. The Cronbach's alpha reliability test findings showed between 0.796-0.875, item difficulty was between 0.25-0.56, and discriminant were between 0.28-0.66.

2.4 The evaluation and acceptance model of the learning process of the morals and ethics of the early childhood in the 21st century was an evaluation form which had the Likert's criteria with a rating scale of 5 levels and were examined by 5 experts who approved the evaluation form at a very high level ($\bar{x} = 4.57$, $SD = 0.48$).

3. Data Collection

3.1 All participating children were tested for morality, ethics, and physical literacy by ranking the achievements in the order from lowest to highest and pair the children with similar achievements together into 2 groups. The training group was organized with a learning management model, totaling 40 students, and the control group was taught with regular teaching, totaling 40 students. Then, teachers observed the children's moral, ethical, and physical literacy behaviors before attending the program until completing the program, and after the program. For the protocol of training group, complex training program consisted of 24 lesson plans.

3.2 Experimental group consisted of 40 participants attending morals and ethics classroom of complex training program, whereas, the control group consisted of 40 participants attending the classroom of general training program.

3.3 The research design was the pre-test and post-test of control group design. Both groups were trained in each part for at least 50 minutes, 3 times a week, totaling 8 weeks, 24 lesson plans, morals and ethics behaviors and physical literacy were evaluated before and after the program.

3.4 The learning process model of the morals and ethics of the early childhood in the 21st century was examined by using the evaluation form.

4. Data analysis

4.1 The efficiency (E1/E2) of the lesson plans of the learning process of the morals and ethics of early childhood in the 21st century was employed the by using the morals and ethics behavior form.

4.2 The indicators of the effectiveness of the lesson plans of the learning process of the morals and ethics of early childhood in the 21st century was employed by using the morals and ethics behavior form of the early childhood in the 21st century which come out with the achievement test score after learning.

4.3 The indicators of the effectiveness of the lesson plans of the learning process of the morals and ethics of early childhood in the 21st century was employed

by using the physical literacy of early childhood that come out with the achievement test score after learning.

4.4 The model of the lesson plans of the learning process of the moral and ethics of early childhood in the 21st century was acceptable by evaluation form of the lesson plan model of the learning process of the morals and ethics of early childhood in the 21st century.

Results

1. The results of the development of the learning process model on morals and ethics of the early childhood in the 21st century consisted of 7 aspects: 1) The concept and the initial agreement of the learning process model, 2) The principle of the learning management model 3) Objectives of the learning process model, 4) Teaching and learning activities organized into 4 stages: Inspiration, Construct, Application, and Reflection, 5) Support for learning, 6) Roles of teachers, and 7) Roles of learners. The quality of suitability was at a high level. ($\bar{x} = 4.45$, $SD = 0.53$).

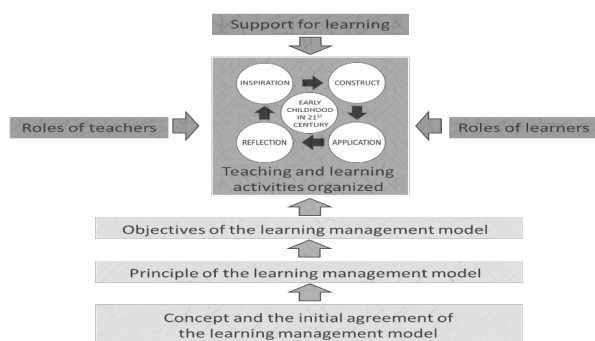


Figure 2 The learning process model on morals and ethics of the early childhood in the 21st century

Result of the efficiency of the lesson plans of the learning process of the morals and ethics of the early childhood in the 21st century follows criteria 80/80 as shown in Table 1 below.

Table 1 Result of the efficiency of the lesson plans of the learning process of the morals and ethics of the early childhood in the 21st century follows criteria 80/80

Efficiency's test	N	Exercise (48)		Test (84)		Efficiency
		\bar{X}	%	\bar{X}	%	
Single	3	38.40	80.00	68.14	81.12	80.00/81.12
Group	9	38.76	80.75	69.01	82.15	80.75/82.15
Field work	30	38.94	81.12	69.07	82.23	81.12/82.23

Table 1 presents the indicators of the efficiency of the lesson plans of the learning process of the morals and ethics of the early childhood in the 21st century and shows it met the criteria of the single at the 80.00/81.12, Group 80.75/82.15, and field work 81.12/82.23.

2. Result of the evaluation of the effectiveness of the model of the learning process of the morals and ethics of the early childhood in the 21st century.

2.1 The comparison results of morals and ethics achievement of the early childhood between the experimental group and the control group after finishing the program are shown in Table 2.

Table 2 The comparison results of morals and ethics achievement of the early childhood after attending the program

Morals and ethics	\bar{X}	SD	t	p
Patience				
Experimental group	9.9	0.67	5.811**	.000
Control group	8.75	1.06		
Responsibility				
Experimental group	10.08	0.79	6.956**	.000
Control group	8.58	1.11		
Compliance with social rules				
Experimental group	10.6	0.84	8.246**	.000
Control group	8.98	0.92		
Total				
Experimental group	30.58	1.17	11.178**	.000
Control group	26.30	2.11		

** $p \leq .01$

According to Table 2, the results of comparison of the morals and ethics achievements of preschool children after participating in the activities revealed that after participating in the experimental group activities, the morals and ethics score of patiently waiting responsibility and compliance with social regulations were significantly higher than the control group at the .01 level.

2.2 The comparison results of physical literacy of the early childhood between experimental and control group after attending the activity are shown in Table 3.

Table 3 The comparison results of physical literacy achievement of the early childhood in the 21st century after attending the program

Physical literacy	\bar{X}	S.D.	t	p
Motivation and Confidence				
Experimental group	5.53	.51	22.693**	.000
Control group	3.20	.41		
Physical ability				
Experimental group	31.13	.72	140.879**	.000
Control group	11.48	.51		
Knowledge and understanding of movement				
Experimental group	2.30	.46	10.005**	.000
Control group	1.28	.45		
Encountering physical activity in active lifestyle				
Experimental group	8.00	.00	58.599**	.000
Control group	3.70	.46		
Total				
Experimental group	46.65	.77	160.738**	.000
Control group	19.38	.49		

** $p \leq .01$

According to Table 3, the results of the comparison of the achievement of physical literacy of preschool children after participating in the activities revealed that after participating in the activities of the experimental group showed that the scores of physical literacy, motivation, and confidence, physical abilities, knowledge and understanding of movement, and encountering physical activities in an active lifestyle were significantly higher than the control group at the .01 level.

3. Result of the acceptability of the model for the learning process of the morals and ethics of the early childhood in the 21st century are shown in Table 4.

Table 4 Result of the acceptability of the model for the learning process of the morals and ethics of early childhood in the 21st century

List of learning process	Accuracy		Appropriateness		Feasibility		Usefulness	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. Model descriptive	4.58	.52	4.59	.48	4.57	.53	4.55	.54
2. Model appropriate for developing the moral and ethical								
3. Experiential learning plan	4.53	.44	4.51	.56	4.52	.47	4.54	.47
4. Learning process	4.57	.52	4.57	.53	4.55	.54	4.57	.53
5. Learning support	4.50	.41	4.50	.43	4.52	.45	4.53	.43
6. Teacher's roles	4.51	.55	4.50	.43	4.51	.56	4.50	.43
7. Student's roles	4.52	.43	4.52	.47	4.51	.56	4.53	.50
8. Applying the model	4.65	.51	4.66	.54	4.65	.52	4.66	.55
Total	4.55	.48	4.55	.49	4.54	.52	4.57	.49

Table 4 shows that result of the acceptability of the model of learning process had a very high score which was total mean of the opinion of the model of the learning process between 4.54 – 4.57. When considered in each component it was found that accuracy, appropriateness, feasibility, and usefulness were higher than criteria at the level of 3.51.

Discussion

1. The model of learning process of the morals and ethics of the early childhood in the 21st century consisted of 7 dimensions, and the efficiency was 81.12/82.23 which met the criteria at 80/80 because of E_1 was approximately equal E_2 so that the lesson plan had quality for implementation. Similarly, to Chaiyong Phomwong (Brahmawong, 2013) that found that if E_1 was close to E_2 and no more than 5%, lesson plans which designed and developed well were high quality as well. Additionally, the lesson plans of the learning process and developing process were approved by experts including putting into practice and testing the lesson plan with the control groups. Similar to the research of Bairaksa and Srichailard (2020), that found that efficiency of the lesson plans of the computer assisted instruction was higher than criteria 80/80 at level of 83.83/82.33.

2. Effectiveness of the model of the learning process of the morals and ethics of the early childhood in the 21st century found that achievement test after learning both the morals and ethics and physical literacy raised to a significant level of .01 because of the model of learning process supported and engaged student's learning very well especially in the lesson plan of the morals, ethics, and physical literacy. Learning process management that focuses on creating fun, feel familiar, relaxed, and ready to learn for children (Attaporn, 2014), is consistent with Gardner (2017) stating that physical intelligence, helps children to be ready and promote their interest in learning and practice better and encourage children to build their own knowledge of problem solving (Piaget, 1965) in a peer-to-peer manner (Vygotsky, 1978). Learners work together to find a way to put their knowledge into practice by using physical literacy activities like independent play but abide by established agreements (Montessori, 2007) and jointly summarize, reflect, review, collect, and connect knowledge and opinions. Teachers encourage learners to discuss or tell stories linked between what they have learned and their previous experiences. The benefits obtained from learning are consistent with Attaporn (2014) that the reflection of learners reflects all knowledge after participating in teaching activities to create a concept.

The results of using the learning process model found that after participating in the activities, learners' knowledge, morality, and ethics namely 1) patience, 2) responsibility, and 3) compliance with social rules, and knowledge of physical literacy namely 1) motivation and confidence, 2) physical ability, 3) knowledge and

understanding of movement, and 4) encountering physical activities in an active style, were overall higher than before participating in the activity. In addition, the experimental group score was higher than the control group score. It is consistent with Piaget and Kolberg's theory of developmental psychology that moral development is the same as intellectual development. As humans grow and learn more things, their intellectual abilities increase. Ethics also develops at an intellectual level. Ruddell and Ruddell (1995) encourages learners to act or act on their own by encouraging learners to draw on their pre-existing experiences in their learning and have students share their own experiences. However, if learners do not have much experience in the subject to study, teachers may give an example or the situation first, then learners will be more knowledgeable because they can apply their previous knowledge and experience to the new knowledge they have gained. This is consistent with Vidourek, King, Bernard, Murnan, and Nabors (2011), a physical education teacher who is consistently enthusiastic in teaching will create a high level of motivation for children to learn and motivate or inspire self-improvement which is in accordance with Whitehead (2010), who said that motivation is a key variable in lifelong participation in physical activity. It promotes the thinking process for students to be able to think and solve problems, think carefully, be rational, and have good judgment, be creative, and be able to think critically in order to receive and reject information and news appropriately. This is consistent with Komintarachart (2011) noting that teachers should have morals and ethics that it is important to be a fundamentally good person, having a good heart, and good thinking. Good behavior also includes being good both physically and verbally. Importantly, teachers should have love and compassion for their students, have good personality, dress politely, and respectful manner which are worth being a teacher.

3. The model of learning process of the morals and ethics of the early childhood in the 21st century had very high appropriateness because the model created belong to theory, principle, and procedure of evaluation including experts approved. According to Stufflebeam (1981) stated that standard of evaluation consisted of 4 pillars: 1) usefulness standard, 2) feasibility, 3) appropriateness standard, and 4) accurate standard. Similar to Jansook et al. (2017) who studied the development of an evaluation model for assessment of the caring competencies of nursing students in nursing

colleges under the Praborommrajchanol Institute found that standards had appropriateness were very high as well as Wongruga, Kanjanawasee, and Ratchusanti (2021) who studied the propriety and possibility of an evaluation model for undergraduate vocational programs: An application of multiple evaluation approaches found that model was very high in the appropriateness and feasibility.

Suggestions

Recommendations for Implication: The application of the program must consider creating understanding and communicating with everyone to realize and trust in value and importance of having moral and ethics. In addition, it is needed to set a certain goal, have good organizational culture, and to have leaders with leadership values. To develop the competency for those who are involved it is necessary to have a holistic learning with family involvement and a strong network.

Recommendations for further research: Teachers should apply the model of the learning process of the morals and ethics of the early childhood in the 21st century in other subjects or other skills and encourage teachers to develop further teaching strategies.

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