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Promotion of the Environmental, Ethical Thinking System Using the Buddha Chinnaraj Teaching Approach

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Abstract: Humans day by day have more behaviors in promoting pollution to the world by being unaware of the facts, causing impacts on all humans themselves. Creation of awareness of the environment is regarded as a guideline for helping decrease environmental pollution crises. Thus, this study of promotion of the environmental, ethical thinking system aimed to find out an efficiency of the Buddha Chinnaraj teaching approach with a requirement of 80/80, to compare ethical achievement before and after learning and to compare the environmental, ethical thinking system using the Buddha Chinnaraj teaching approach and the conventional teaching approach. The sample used in this study consisted of 80 Matthayumsueksa 5 (grade 11) students at Phutthachinnarat Phitthaya School, Amp hoe Mueang, Changwat Phitsanulok, obtained using the cluster random sampling technique. They were assigned to an experimental group of 40 students and a control group of 40 students. The instruments used for collecting data were plans for organization of learning by using the Buddha Chinnaraj teaching approach and plans for organization of learning by using the conventional teaching approach, a 40-item achievement test and a 40-item scale on ethical thinking. The statistics used for analyzing the collected data were mean, percentage, t-test (dependent samples) and F-test (ANOVA and Two-way MANOVA). The results of the study were as follows: the Buddha Chinnaraj teaching approach entitled promotion of the environmental, ethical thinking system had an efficiency of 96-25/96.87, which was higher than the established requirement of 80/80. After learning by using the Buddha Chinnaraj teaching approach Matthayomsuekas 5 students had higher knowledge, attitudes and performance in the environmental, ethical aspect than those who learned using the conventional teaching approach at the 0.01 level of significance. fter learning by using the Buddha Chinnaraj teaching approach Matthayomsueksa 5 students had higher environmental ethics than those who learned using the conventional teaching approach at the 0.01 level of significance. In conclusion, the Buddha Chinnaraj teaching approach, which has principal dharma and dharma principles in supplement as the base of the yonisomanasikara thinking system and reasons as important elements. This approach can encourage students to be alert and to generate dharma preference and originate happiness to living things around them. The students have mental freedom based on the Buddhist Teachings. Therefore, the Buddha Chinnaraj teaching approach should be supported to implement in learning and teaching in the future.

Key words: Buddha Chinnaraj teaching approach, ethical thinking system, environmental promotion

INTRODUCTION

The advance of modern technology in the age of globalization results in the environmental deterioration such as problems relating to forest, water resources and garbage. The responsibilities for these do not only have an effect on human's body and mind, but also on economic condition at family level, community level and social level. Because of the advance of medical science and biotechnology, we live longer. The way of life of people living in a large city worldwide is based on earning a living and struggling for their and their family's survival, moreover they have to face many problems that inevitably cause stress and health problems in people of all genders and ages. The problems like flood, storm, fire and global warming threatening the survival of human beings are now spreading all over the world. Thus, it is important for us to understand the relevant factors and variables,

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deterioration, unbalanced natural resources, including moral deterioration and polluted environment. The major environmental problems are caused by humans.

It can be said that humans are the cause of the problems and they are affected by the problems (Vinai, 1998). In order to solve or prevent the environmental problems efficiently, it should start by developing humans, the cause of these problems for example giving formal and non-formal environmental education.

This research was conducted on enhancement of environmental ethic thinking system though the Buddha Chinnaraj teaching method. With dharmic principle forming the base of Yonisomanasikarn thinking system and reasons, which are elements of thinking system of Buddha Chinnaraj teaching method, we can accommodate learning-teaching activities for students in secondary education (4th level), especially Mathayomsuksa 5 students. They can learn better from material objects in the form of pictures than from abstract objects or alphabets because their habit and attitude has changed positively and they can judge the problems more prudently and carefully 2007, from 2 classroom, 40.

This study to promotion of the environmental, ethical thinking system aimed to find out an efficiency of the Buddha Chinnaraj teaching approach with a requirement of 80/80, to compare ethical achievement before and after learning and to compare the environmental, ethical thinking system using the Buddha Chinnaraj teaching approach and the conventional teaching approach.

MATERIALS AND METHODS

The steps of research and data collection are: Implemented at Buddha chinaraj Phittaya School surrounding and emphasized on studying data according to proper procedures. The research sample population consisted of Mathayomsuksa 5 students at Buddhachinaraj Phittaya School in Muang District, Phitsanulok, in second semester, academic year students per classroom, total 80 students. The research instruments consisted of Buddha Chinnaraj-based lesson plans on the topic of enhancement of environmental ethic thinking system though the Buddha Chinnaraj teaching method, total 4 plans, 20 h, normal lesson plans on the topic of enhancement of environmental ethic thinking system though the Buddha Chinnaraj teaching method, total 4 plans, 20 h, achievement test entitled enhancement of environmental ethic thinking system though the Buddha Chinnaraj teaching method in 4 aspects total 40 questions. It was a 4 choice objective test relating to environmental education in 4 aspects such as forest conservation, water resource conservation, garbage disposal and energy conservation created by me; a test used for evaluating enhancement of environmental ethic thinking system though the Buddha Chinnaraj teaching method, total 40 questions in 5 aspects such as creating awareness of environment, avoiding damaging the environment, shame and fear of the results of the action, interaction with the environment and responsibilities for the environment; a ten-question quiz, which was a subjective test created by me according to social studies content. The quality of the instruments and created Buddha Chinnaraj-based lesson plans and normal lesson plans according to the concept of the Buddha, Dhamma-Pitaka (1971) and Dararat (2005), according to dharmic principle of Yonisomanasikarn-based teaching and the 4 Noble Truths. The lesson plans were developed by me as a new form of teaching, consisting of 7 steps of learning-teaching activities:

Step 1 : Presenting the situation (Yonisomanasikarn)
Step 2 : Enhancing thinking system (Yonisomanasikarn)
Step 3 : Creating media for communication in thinking system (Dukkha)
Step 4 : Communicating and improving thinking system (Samudaya)
Step 5 : Planning the presentation of group's thinking system result (Nirodha)
Step 6 : Discussing thinking system result (Yonisomanasikarn)
Step 7 : Evaluating thinking system (Magga) by the experts, using grade point average of 3.50-5.00 as criteria to determine qualified lesson plans.

The evaluation of the experts showed that the quality of the lesson plans was in excellence level, IOC value was equal to 4.63. After being evaluated by the experts, the lesson plans were improved according to their suggestion. Then, experimental teaching for students who used to study this lesson to find the weakness of the plans and the fitness between learning-teaching content and time schedule. The plans were improved again before using in the next sample group and were printed to use as an experimental instrument for Mathayomsuksa 5 students at Buddhachinaraj Phittaya School in Muang District, Phitsanulok. Regarding the creation of the achievement test on environment. The achievement test relating to environment in 4 aspects such as forests, water resources, garbage and energy conservation. It was a four-choice objective test with total 40 questions, emphasizing on understanding and ability to apply, analytical thinking, synthesis-type thinking about the environment. The authors studied methods of creating a

test for assessing knowledge and understanding and techniques of item analysis (Dararat, 2005) and submitted the achievement test with total 40 questions for measuring understanding of the environment to the thesis advisory committee for review. After being corrected in accordance with the thesis advisory committee's comments, they were submitted to 5 experts (the same as item 1.1.6). The experts assessed and evaluated the study and proved the content validity by assessing the congruence between the item and the instructional objective by using Index of Item Objective Congruence (IOC), IOC values had to be ≥ 0.5 (Dararat, 2005), IOC values of 40-question test ranged from 0.50-1.00 on average. The test used for assessing knowledge and understanding according to the experts' suggestion and tried out the test with non-sample Mathayomsuksa 5 students at Tatongpittaya School in Tatong Sub-district, Muang District, Phitsanulok, from total 2 classrooms, total 60 students, from 1-15 February 2007 for evaluating scores of the achievement test used for measuring understanding of the environment, 1 mark for the right answer, 0 mark for not answering and wrong answers for 2 questions or over. The achievement test was subjected to a quality analysis in order to select qualified questions from 40 questions. The analysis was carried out by finding the difficulty factor (P) and discrimination index (B), using Point Biserial Correlation to select questions with positive and >0.20 discrimination index (Booncherd, 1978), the discrimination index (r) was ranged from 0.20-0.82, difficult factor (P) was ranged from 0.20-0.77. After finding the confidence value (a) by KR-20 formula (Booncherd, 1983), it was found that the confidence value (a) was equal to 0.86.

The test used for assessing environmental ethic thinking system. It was a 4 choice objective test with total 40 questions, created by referring criteria of ethic classification according to structure of culture in Thai society, which classified ethic into 4 levels such as abstention from wrongdoing for rightness and goodness according to universal ethical principle (do good). The test used for assessing environmental ethic was submitted to 5 experts to find the content validity value. After being corrected according to the experts' comments, the test was tried out with non-sample Mathayomsuksa 5 students at Tatongpittaya School in Tatong Sub-district, Muang District, Phitsanulok, from total 2 classrooms, total 60 students for evaluating scores of the test used for measuring environmental ethic (Pradhamgosajarn, 2003). The test was subjected to a quality analysis in order to select qualified questions from 40 questions. The analysis was carried out by finding the difficulty factor (P) and discrimination index (B), using Point Biserial Correlation to select questions with positive and >0.20 discrimination index (Booncherd, 1978), the discrimination index (r) was ranged from 0.35-1.00, difficult factor (P) was ranged from 0.43-8.6. After finding the confidence value (a) by KR-20 formula (Booncherd, 1983), it was found that the confidence value (a) was equal to 0.92.

To sum up, the findings of the study conducted in foreign countries and the theory of enhancement of moral and ethic showed the importance of enhancement of moral and ethic in learning content and activities conducted in accordance with moral and ethic. Countries having religion as part of their culture used religion activities as instruments. Moreover, it could strengthen the community and society and allowed enhancement of moral and ethic at school. To enhance moral and ethic successfully, it was important to focus on every element, not only subjects or activities at school, the community and society group had to involve in holding activities in accordance with social studies and students' daily lives.

RESULTS AND DISCUSSION

The research result is as follows: The findings of this study indicated that the average efficiency (E_1/E_2) of the enhancement of environmental ethic thinking system through the Buddha Chinnaraj teaching method in Mathayomsuksa 5 students was equal to 96.25/96.87, higher than the specified value of 80/80. After using Buddha Chinnaraj teaching method, Mathayomsuksa 5 students had higher knowledge and attitude towards the environment than Mathayomsuksa 5 students taught by normal teaching method at the statistical level of 0.01. After using Buddha Chinnaraj teaching method, Mathayomsuksa 5 students had higher environmental ethic than those taught by normal teaching method at the statistical level of 0.01.

The Buddha Chinnaraj teaching method consisting dharmic principle forming the base of Yonisomanasikarn and reasons, which are significant elements could stimulate the students to be alert and have satisfaction from making surrounding environment such as forests, humans and living things happy and they could set their mind at rest according to Buddhist principle, so Buddha Chinnaraj teaching method should be promoted in learning-teaching activities.

Seek efficiency the conspiracy manages to learn teaching Buddha Chinnaraj approach and teaching normal method 80/80 Analysis seek the efficiency plan leaning researcher scores between study and scores the back studies by total bring seek the value scores mean ($\bar{X}$) and (%) appear as follows Table 1.

Table 1: Scores temple test achievement Environmental teaching Buddha Chinnaraj approach and teaching Normal Method the plan manages to learn about at 1 to 5 and scores achievement the back studies

Leaning 2 method		Scores between study (1.600 scores)	Scores test the back studies (1.600 scores)
Teaching Buddha	Total	1.450	1.550
Chinnaraj approach	$\overline{X}$	36.25	38.75
(n = 40)	(%)	$E_1 = 96.25$	$E_2 = 96.87$
Teaching normal	Total	1.350	1.400
Method	$\overline{X}$	33.75	35.00
(n = 40)	(%)	$E_1 = 84.37$	E = 87.50

Table 2: Statistics base of scores Environmental Ethic and scores the achievement environment study before study and back study teaching buddha chinnaraj approach and teaching normal method

Variable	Leaning 2 method	Mean	SD
The morality	Buddha Chinnaraj approach	94.55	6.74
before study	Teaching normal method	92.80	5.08
	Mean	93.68	5.99
Back	Buddha Chinnaraj approach	105.10	6.42
morality studies	Teaching normal method	96.85	4.51
	Mean	100.98	6.90
The achievement	Buddha Chinnaraj approach	25.20	2.68
before study	Teaching normal method	26.31	3.58
	Mean	25.76	3.13
Back	Buddha Chinnaraj approach	38.75	1.97
achievement studies	Teaching normal method	35.00	7.04
	Mean	36.89	4.50

Table 1 meet that percentage scores mean test between and the back studies by teaching Buddha Chinnaraj approach have efficiency's the plan manages to learn E_1/E_2 = 96.87/96.87 teaching normal method E_1/E_2 = 84.37 / 87.50 and teaching Buddha Chinnaraj approach tall more than of 80/80.

Table 2 meet that scores Environmental Ethic before study and back teaching Buddha Chinnaraj approach have mean 94.55 and 105.10 have deviate the standard 6.74 and 6.42 before study and back teaching normal method have mean 92.80 and 96.85 deviate the standard 5.08 and 4.51, respectively and scores knowledge Environmental before study and back teaching Buddha Chinnaraj approach have mean 25.08 and 36.70 have deviate the standard 2.40 and 1.54, respectively before study and back teaching normal method have mean 25.55 and 34.73 have deviate the standard 2.78 and 1.74, respectively.

Quality education teaching Buddha Chinnaraj approach and teaching normal method.

Overall image test Analysis the vary noun Analysis overall image test teaching Buddha Chinnaraj approach and teaching normal method can encourage give a student has points scores model temple Environmental Ethic and scores achievement Environment back have teach tall before more have teach or very a little how much and because of the variable will do to have just one the way teaches to compose teaching Buddha Chinnaraj approach and teaching normal method the variable in the education has two the variable.

Environmental Ethic and achievement Environmental before temple and back have teach researcher then choose use both of Analysis the vary great the noun (Unvaried Analysis of Variance) and Analysis the vary noun (Multivariate Analysis of Variance) temple repeated kind and use the pattern Analysis One between and Two within Factors manage, respectively.

CONCLUSION

The enhancement of environmental ethic thinking system through the Buddha Chinnaraj approach teaching method could stimulate the students to be alert and have satisfaction from making surrounding environment such as forests, humans and living things happy and they could set their mind at rest according to Buddhist principle applied in learning-teaching process. The method focused on enhancement of youth's ethical achievement and environmental ethic thinking system.

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