Environmental Research Journal
MEDWELL PUBLICATIONS

The Development of Environmental Volunteer Spirit for High School Students

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Key words: Environmental volunteer spirit, natural resources and environment conservation, school student, environmental volunteer, statistical significance, spirit score

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Page No.: 19-22
Volume: 14, Issue 01, 2020
ISSN: 1994-5396
Environmental Research Journal

Abstract: This research aimed to study and compare environmental volunteer spirit of high school students. The sample were 4-6 grade of Matthayom Suksa at Na Chueak Pittayasan School, Na Chueak district in Maha Sarakham province, office of the Secondary Education Region 26. It has been estimated by 106 individuals. The instruments used in the research were environmental volunteer spirit development handbook and environmental volunteer spirit test. The statistics used in data were calculated by frequency, percentage, mean standard deviation of the response items and analyzed through a t and F-test (One-way ANOVA and one-way MANOVA). The research found that the sample group had an average score of volunteer spirit higher post training than before development as statistical significance value of 0.05 The different sex students had not being different environmental volunteer spirit score and the 4-6 level grade students had being different environmental volunteer spirit score as statistical significance value of 0.05.

INTRODUCTION

Natural resources and the environment have been used as a driving force in almost every country's development in the past several decades. The result of this study is that natural resources and environment are often pushed out of the economic and social development. From the perspective of society, natural resources and environment are the natural factors blank for Thailand, the economic and social development emphasizes the progress of trade and industry. According to the world economy, forgetting what is nature being the foundation to make trade and industry possible. It has been reported from academic sociology both domestically and internationally that the management of natural resources and environment in Thailand is ineffective because it does not bring loss and degradation of natural resources to calculate the economic growth rate. Because the economic growth rate has an enormous impact on the environment (Bamrungsuk, 2012).

Current global population increases are likely to be higher. The increase in the population means that the demand for natural resources for living in various stages has increased (Saengmanee, 2003). The result is the increase of the living space and agriculture. The destruction of forests cause a natural balance of the need for more resources.

Using to increase agricultural productivity, the use of chemicals such as pesticides and fertilizers will result in residues of these substances in the soil and may spread to

water or ecosystems. In addition, these chemicals can accumulate and remain in the animals. Therefore, if the use of these chemicals in large quantities and for a long time it will cause the production of both plants and animals are contaminated with chemicals. Most of the human and environmental problems that occur are due to the use of natural resources inappropriately, improperly or uncontrolled cause of the damage.

Enforcement in many countries is legal controls that take legal measures. In many countries specialized systems have emerged to control the environment with the development of people. Developing people means educating and create a human consciousness in the world society. This program is designed for both upper and lower education as well as media literacy, newspapers, radio, television or documentaries to view the importance of the environment. Not a single person but it is the shared responsibility of humanity. Every country needs to work together to prevent problems and solve problems.

In this research, the researcher realized the importance of developing volunteer spirit of high school students, Matthayom Suksa at Na Chueak Pittayasan School, Na Chueak district in Maha Sarakham province. The researcher wanted to develop the environmental volunteer spirit of the students. Because students are the driving force of a new generation of society. Therefore in the development of environmental volunteer spirit cultivate students to become aware of volunteerism. And to conserve natural resources and environment as well as a model for doing activities related to the development of environmental volunteer spirit.

MATERIALS AND METHODS

Sample population: The population used in the development of environmental volunteer spirit were to high school students. There were 869 people in Na Chuean district , Mahasarakham province. The sample consisted of 34 grade 4 students, 35 grade 5 students and 37 grade 6 students of Na Chueak Pittayasan School, Na Chueak sub-district, Na Chueak district, Mahasarakham province being selected be purposive sampling.

Research tools: This curriculum of development environmental volunteer spirit was made by researcher applied the theory and related research papers to determine the scope and structure of the curriculum and develop a environmental volunteer spirit development program, divided into six development units, namely development unit; environment and environmental issues, development unit; environmental conservation development unit; good leadership development unit; Volunteer spirit development unit; volunteer spirit development unit; environmental volunteer leaders, to bring the experts to the appropriate, accurate, complete and comprehensive principles of curriculum and content integrity. The results of the evaluation of the suitability of the environmental volunteer development was appropriateness of the training program at 4.82 at the most appropriate level. It is appropriate that the curriculum be appropriate to collect data.

Environmental volunteer spirit test before and after environment volunteer development was the process of creating and finding the quality of tools such as studying the basics of texts. Relevant research papers collect data from 20 volunteer environments. Scales have been rated as offer to the experts for consistency. The accuracy of the IOC was found to be consistent with all criteria. Then tested (trial) with high school students. There were 30 students who are not examples of Na Chua School in Maha Sarakham. The reliability of the data was 0.625-853 and the coefficient of reliability was 0.964.

Data collection: After creating the environmental volunteer spirit program, the students will had the quality to meet the criteria and then develop the high school students of Na Chueak, Pittayasan School, Na Chueak, Mahasarakam Province in 1st semester 2016, 32 h in 4 months before and after the environmental volunteer spirit development.

Data analysis: An analysis data of environmental volunteer spirit of high school students used SPSS program and use statistics; frequency, percentage, mean, stand deviation of the response items and analyzed through at and F-test (One-way ANOVA and one-way MANOVA).

RESULTS AND DISCUSSION

The study and comparison of environmental volunteer spirit score at the grade level before and after the development it was found that before the development, overall was at high level and after development at the high level. When classified the grade found that before development grade 4 students were at the high score level and after development at the high level, grade 5 students had average volunteer spirit at the high level and after development at the high level, before development, grade 6 students had at the high level and after development at high levels, students in grades 4-6 had scores for environmental volunteer spirit after development higher than before development as statistical significance value of 0.05, so (Table 1).

Comparative analysis of one-way ANOVA by gender, the sum of squared deviations between the groups was 0.088 and the mean of 0.088. The sum of the squared deviations was 28.438 and the mean of 0.273 with no statistical significance of 0.32. At the 0.05 is shown as Table 2.

Table 1: Comparison of environmental volunteer spirit score before and after development classified by grade 4-6 level t-test (dependent samples)

	Before development (n = 5)			After development (n = 5)					
Class (N = 106)	$\bar{x}$	SD	Volunteer spirit	$\bar{x}$	SD	Volunteer spirit	t-values	df	p-values
Student M.4 (n = 34)	3.45	0.69	high	3.98	0.69	high	-5.842*	33	<0.001
Student M.5 (n = 35)	3.31	0.72	high	4.00	0.76	high	-6.163*	34	<0.001
Student M.6 (n = 37)	3.48	0.69	high	4.26	0.63	high	-8.389*	36	<0.001
Total	3.41	0.70	high	4.08	0.69	high	-6.798*	106	<0.001

*There were statistically significant at 0.05 level

Table 2: Comparison of one-way ANOVA the samples were analyzed by using one-way ANOVA

Variable source	SS	df	$\bar{x}$	F-values	p-values
Between groups (SSB)	0.088	1	0.088	0.32	0.573
Within group (SSw)	28.438	104	0.273		
Total	28.526	105			

Table 3: Comparison of one way variance volunteerism classified by grade 4-6 level using one-way ANOVA

Variable source	SS	df	$\bar{x}$	F-values	p-values
Between groups (SSB)	1.729	2	0.865	3.323*	0.04
Within group (SSw)	26.796	103	0.26		
Total	28.525	105			

Table 4: Comparison of environmental volunteer spirit overall, the sample students had different levels using one-way MANOVA

Test statistics	Values	Hypothesis df	Error df	F-values	p-values
Pillai's Trace	0.208	3.945	6	204*	<0.001
Wilk's Lambda	0.800	3.978	6	202*	<0.001
Hotelling's Trace	0.241	4.009	6	200*	<0.001
Roy's largest root	0.189	6.434*	3	102*	<0.001

*There were statistically significant at 0.05 level

Comparative analysis of one-way variance, leadership skills, environmental volunteer spirit based on grade level 4-6, the sum of squared deviations was 1.729 and the mean was 0.865. The sum of squared deviations was 26.796 and the mean was 0.26. The statistical significance was 3.323, statistically significant at 0.05 level is shown as Table 3.

Comparative environmental volunteer spirit score to conserve natural resources and environment in grade 4-6 was statistically significant at the 0.05 level is shown as Table 4.

Comparative study of environmental volunteer spirit of students by comparison, the environmental volunteer was classified by grade level 4-6. After development, they had score higher than before development. This is in line with the concept of Wangpanit (1983) gives meaning when people get news stories from learning to practicing, training and being seen through the senses. It will make the facts. The details of the story will be the experience of the person. It is necessary to measure the ability to memorize facts or to measure memories from experience. This is consistent with the research of Pongsritasana (2013) studied that the development of public spirituality of students Rajamangala University of Technology Krungthep, indicated that the students who participated in the learning activities of public mental development had the average score of public mental health after the experiment higher than before the experiment at the statistical significance of 0.01 and Chantana (2010) studied the effect of using group process to develop public mind of junior high school students. It was found that students who participated in the program for public mental development after participating in the activities had higher public mental scores than before joining the activities and Charsuk (2006), conducted a study on the development of an environmental education training model for mangrove conservation for Matthayom Suksa 6 students than before training statistically significant at the 0.05.

Comparison of environmental volunteer spirit among students by comparison, the environmental volunteer was classified by gender found that was not different among male volunteers. This is consistent with the concept of discipline. Veerawattananon (2003) who discusses the principles of environmental education. It must focus on raising awareness and environmental values create a positive attitude towards the environment and create values for society, to maintain the quality of the environment. The evaluation process is aimed at evaluating awareness, attitudes, values and environmental behaviors are more than just memory oriented learning. The activity is a field trip (field study technique). To help participants become more knowledgeable. This is consistent with the research of Chakwatanakul found that cooperation in forest resource conservation. The methods and methods of conservation of forest resources are at a high level. In terms of forest problems in the community, there was a moderate level of awareness and awareness and were no statistically significant differences (p>0.05) between male and female of Sutthiboon and Team (2015) studied the development of the learning environment for environmental education by the way to promote the conservation of natural resources and environment for high school students. The study found that the comparison of learning achievement. The environmental education model was used by the study tour process for upper secondary school students. The average grade point average was higher than before. At the 0.01 level, the learning achievement of male and female students learning by using learning environment model was studied using the study process for high school students. There was no difference in mean score after learning. And

consistent with the research of Gunsing (2001) studied the satisfaction of students in the Faculty of Education. Burapa University to use the academic service, found that students with different sexes were no dfference in statistic.

Comparison of environmental volunteer spirit among students by comparing volunteer spirit score found that grade 4-6 students had score different as statistically significant at the 0.05 level which was in line with the concept of SriSeungpong has meant that classroom research is classroom research or at school level (lower education institution) aims to improve the learning process of the students. Classroom research is about solving problems or developing learners in the classroom. School or environment related to learners, classrooms and schools which corresponds to research in accordance with research of Wichienwilawan (2007) found that the students in Phranakhon Si Ayutthaya Rajabhat University were different in their education having a level of satisfaction building facility materials environment and staff and staff not different. This may be due to the Chinese students in each of the years, benefiting from problems and support from the teaching and learning units. And activities in the same college and the courses of international colleges, Burapa University Open for students to choose freely. Separation of the year is not clear. Students may combine in some subjects. This is consistent with the research findings of DolMim and Singseewo (2017) conducted a study on the development of community environmental guides for schools in Mahasarakham municipality. To promote the learning environment. The research found that The use of environmental community guides that affect environmental learning in environmental knowledge and environmental attitudes by gender. Students at Burapha University School of medicine and students at Samakkhiyavi school having different sexes have knowledge about the environment and attitudes towards the environment not different.

CONCLUSION

It showed that the process of promoting energy saving in dormitories with manual content, the promotion process does not affect the level of knowledge of students with gender, grade and dormitories of different students.

ACKNOWLEDGEMENTS

Thanks for Center of Environmental Education Research and Training, Faculty of Environment and Resource Studies, Mahasarakham University, Mahasarakham, Thailand and Srimahasarakham Nursing College, Mahasarakham, Thailand.

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