



Exploring Level of Participatory Behaviour on Sustainable Development of Elementary School Children with Differential Level of Critical Thinking

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ABSTRACT-The present study was conducted on exploring the level of participatory behavior on sustainable development of elementary school children with differential level of critical thinking. The main objectives of the study were to find out the level of participatory behavior on sustainable development of elementary school children's (male and female) with differential level of critical thinking. Moreover, the study involves a sample of 100 students belonging to 7th standard from different schools of Poonch district of Jammu region. The data was collected by the descriptive type of study under survey methods of research. Sample random sampling was used to collect the data with the help of standardized tools namely participatory behavior scale and critical thinking scale by Padmanaban J. (2011). The obtained data was analyzed by suitable statistical technique such as Mean, Standard Deviation and ANOVA. The main finding of the present research found that there is no significant difference in the participatory behavior on sustainable development of elementary school children belonging to the Poonch district of Jammu and Kashmir having differential level of critical thinking.

KeyWords: Participatory Behavior, Sustainable Development, Critical thinking, Elementary school children

INTRODUCTION

Education for sustainable development includes important sustainable development issues into the teaching learning process. It includes, for example, education about climate disaster, decrease of threat, biodiversity, and reduction of poverty, sustainable consumption etc. Education for sustainable Development therefore promotes

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competencies like significant thinking, imagining upcoming scenarios and making decisions in a collaborative way. As human beings we differ from each other in terms of how we behave, how we live, how we think, how we take decisions in life, how we communicate, how we develop friends around and so on. Therefore, it is needless to say that as individuals we differ from each other. It would be interesting to understand as to why human beings differ on different attributes. One of the significant aspects among them is the way one thinks about almost everything one is surrounded with. Our thinking reflects on our own quality aspects of personality. Thus, critical thinking matters most. Critical thinking on sustainable development is a logical, thoughtful, accountable and competent thought that is paying attention on decide what to suppose or do for attaining sustainability. An individual who think critically can ask suitable questions, collect applicable data, proficiently and creatively, reason out rationally from this material/ data and come to consistent and reliable decisions around the world that allow one to live and act effectively in it.

Sustainable Development

Sustainable development is a demanding common process. Some different domains of society e.g. social, economic and environmental have to be involved where they are incompatible. Institutional and individuality role and tasks have to modify, so that new pattern of behaviour will promote sustainable development. These challenges identify new approaches of organization and action. Critical thinking on sustainable development is a logical, thoughtful, accountable and competent opinion that is paying attention on deciding what to envisage or do for attaining sustainability. An individual who thinks significantly can put an appropriate questions, collect appropriate information, sort this information competently and creatively, cause out rationally since this materials is trustworthy and truthful decisions around the world that allow one to live and operate effectively in it. The earth's environment has been considered as a remarkably stable, self correcting machine, taking care of all human misadventures and assaults on fragile biosphere. But this misconception of nature cannot be taken for granted. Modern technology in industry and agriculture, as well as other developmental activities of modern society are highly exploitative in nature, which is enhancing pollution and causing enormous damage to the environment.

Critical Thinking

A huge deal of what is taught in institutions is theoretical portions rather than practical. While based on indication that could emerge to be realistic, the majority of information results from the critical thinking and explanation that writers and researchers have drawn from their study of related data.

One of the most important aspects of critical thinking is personal knowledge creation. This we do by:

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- Identifying our existing understanding and experiences in relation to a particular topic
- considering our stance in relation to that issue a thoughtful process which includes our emotions and values
- collect reliable evidence, which may defy or support our stance
- critically analyzing [studying its meaning, structure and validity] and evaluating [making a judgment about] that evidence
- Using it develop our own awareness and understanding.

Thus, critical thinking involves interpretation, analysis, evaluation, inference, and explanation etc.

These processes allow us to put forward a significant argument to influence of others to our point of view and thus to contribute to the collective on facts base. Before we explore these elements of critical thinking in a little more depth, one should insert a note of caution.

Studies related to the sustainable development and critical thinking

Grener and Raths (1945) found that “the thinking ability and values of third graders” were developed as measured by a critical thinking test they devised. Still, very little formal teaching of critical reading has occurred in elementary schools except as a "sometimes" emphasis in the middle grades on identifying propaganda devices.

Betts (1956) reported “a low positive relationship between literal reading and certain types of critical thinking”.

Exemmal (1980) examine “the efficacy of environmental approaches”. In this study the researcher found that the superior and formal approach in environment. The researcher reveals that the SES group is superior in Profit from such teaching than the counterpart in rural areas and come from high SES group. Result of the study show that the significant difference between the approaches and environmental approaches come from mental/cognitive growth.

Bailin (2002) conducted “a study on critical thinking” and found that critical thinking is a reliable quality— especially good thoughts that happens specified criterion or qualities of capability and truthfulness.

Shobeiri and Prahallada’s (2006) conducted “a study on environmental awareness among higher secondary schools students belonging to India and Iran”. A comparative study was conducted and found that average level of awareness among the Indian students as compared to the Iranian. The high level of environmental awareness in among Iranian students is (85.10%) is more than that of Indian students (56%). The study concludes that the significant difference between the two countries.

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Pande (2007) conducted “a studied on environmental awareness among children”. In this study the researcher found that the awareness of environment among the students that’s belonged to the rural and urban background, most of the school children have no knowledge about the environmental importance, issues and problems related to the environmental awareness. The result of the study show that the children lived in urban areas had reasonable ideas about the environmental problems as compare to the rural habitation. The researcher found that the reason of the children who have not known the importance and problems related to the environmental awareness: firstly most of the children belonging to the rural areas and have a deprived society, and have no facilities for improving their cognitive horizon.

Shair and Akhter (2012) “a comparative study on environmental awareness among adolescent and higher education students”. In this study the researcher found that the comparative study on environmental awareness among the adolescent and higher education students belonging to the Jammu and Kashmir students. The results of the study reveal that the higher education students have highest level of awareness as compared to the adolescent students. In this study the researcher found that the significant difference between the environmental awareness issues and problems among adolescent and higher education students.

Raina (2015) conducted “a study on awareness of environment among secondary and senior secondary school students” of Kangra of Himachal Pradesh district. The study was contained on 300 students as a sampling, 150 students of high school and 150 from higher secondary school students. In this study the researcher found that the girl's students of higher secondary level were very much aware than the boys students and also secondary level students. The study reveals that the private schools students having more information related to the environmental awareness. The senior secondary school students were more aware as compared to the secondary level students and found that the statistically significant difference among the students at school level.

Rationale of the study

It was observed that in the present situation, there is a lacuna where Environmental Education is introduced in school system. It gives emphasis only with environmental aspect but not with developmental aspect. If it is given importance only to the environment, then it becomes unilateral. The participatory behaviour of children will help in identifying how much sustainable practices one follows in life. Critical thinking is also an important construct that decides upon how children look at the socio-political problems around them and this helps them in taking appropriate decisions. Hence there is a need to explore the level of participatory behaviour of children towards sustainable development and also to see whether this has any variation among children having differential level of critical thinking.

Statement of the problem

The present study explores the level of participatory behavior of elementary school children having differential level of critical thinking and also among male and female children. Hence, the study is entitled as; **“EXPLORING LEVEL OF PARTICIPATORY BEHAVIOUR ON SUSTAINABLE DEVELOPMENT OF ELEMENTARY SCHOOL CHILDREN WITH DIFFERENTIAL LEVEL OF CRITICAL THINKING”**

Operational Definitions

The different terms as used in the study has been operationally defined as follows:

Sustainable development

Sustainable development includes key sustainable development issues into teaching and learning process. This may include, for example, instruction about climate disaster, threat reduction, biodiversity, and reduction of poverty, sustainable consumption etc. Education for sustainable development is educating the various stakeholders about sustainable development

Critical thinking

Critical thinking is the capability of an individual to more increase his/her awareness about sustainable development on a circumstances over understanding, investigation, calculation, conclusion, justification and self regulation to reach successful results and complete conclusions on issues related to sustainable development.

Participatory behavior

It is the ability of individuals to participate in programmes and activities related to sustainable development and their ability of perform in terms of maintaining equality towards sustaining environment and resources, maintaining solidarity towards environment for sustainable development, observing tolerance in order to attain sustainable development, developing respect and care for environment and community of life, maintaining a shared responsibility for sustaining our environment.

Objectives

1. To explore the participatory behaviour on sustainable development of elementary school children.
2. To compare the participatory behaviour on sustainable development of female children having differential level of critical thinking
3. To explore the participatory behaviour on sustainable development of male children having differential level of critical thinking.
4. To compare the difference in critical thinking of children having differential level of participatory behaviour.

Hypotheses

H0 There exist no difference in the participatory behaviour on sustainable development of elementary school children having differential level of critical thinking.

H0 The participatory behaviour on sustainable development of elementary school female children belonging to differential levels of critical thinking do not differ significantly.

H0 The participatory behaviour on sustainable development of elementary school male children belonging to differential levels of critical thinking do not differ significantly.

H0 There exist no difference in the critical thinking of children having differential level of participatory behaviour.

METHODOLOGY

A survey method which belongs to descriptive study was conducted on exploring level of participatory behavior on sustainable development of elementary school children with differential level of critical thinking. In the present study a quantitative types of study was conducted and it see the different dimensions of exploring level of participatory behaviour on sustainable development of elementary school children with differential level of critical thinking. The 7th standard both male and female students of Punch district of jammu and Kashmir were taken as a sampling. In this study the researcher selected five Government and five private schools randomly of 7th class students by using stratified random sampling technique from the Punch district. Tools used in this study are:

- a) Critical Thinking Test on sustainable development developed by Padmanaban J. (2011)
- b) Scale on participatory and performance skills on sustainable development developed by Padmanaban J. (2011)

Technique of Data Analysis

ANOVA was used to analyze all hypotheses. One way ANOVA was used to find out whether there is a significant difference in the participatory behaviour on sustainable development of 7th standard students having differential level of critical thinking. It was also used to study the participatory behaviour on sustainable development of elementary school female and male children belonging to differential level of critical thinking.

RESULTS AND DISCUSSION

H01 There is no significant difference in the participatory behaviour on sustainable development of elementary school children having differential level of critical thinking.

Table 1.2 Mean and standard deviation of the scores of participatory behaviour on sustainable development and the differential level of critical thinking of elementary school children of Punch district

Categories of students	N	Mean of scores on Participatory behavior	Std. Deviation
High CT	15	48.47	5.489
Low CT	15	48.40	5.262
Average CT	70	46.83	4.809
Total	100	47.31	4.984

Table 1.2 shows that Out of total 100 elementary school children of Punch district show that there are 15 students in high critical thinking score and 15 in low critical thinking and 70 in average critical thinking. The table value reveals that the students with high critical thinking have a mean value of 48.47 and standard deviation value of 5.489 on the participatory behaviour of elementary school children. And the students with average critical thinking have a mean value of 46.83 and standard deviation is 4.809 and also the students with low critical thinking have a mean value of 48.40 and standard deviation is 5.262 on participatory behaviour.

Table 1.3 one way ANOVA of the scores on participatory behaviour of elementary school children of punch district

	Sum of Squares	DF	Means square	F	Sig.
Between Groups	54.114	2	27.057	1.091	.340
Within Groups	2405.276	97	24.797		
Total	2459.390	99			

From table 1.3 it is observed that F-value of scores on participatory behaviour of elementary school children of Punch district is found to be 1.091 that is not significant difference at 0.05 level of significance. Hence the null hypothesis declare that there is no significant difference in the participatory behaviour on sustainable development of elementary school children having differential level of critical thinking is accepted.

H02 the participatory behaviour on sustainable development of 7th standard female students belonging to differential level of critical thinking do not differ significantly

Table 1.4 Mean and standard deviation of the scores of the participatory behaviour on sustainable development of female elementary school children having differential level of critical thinking

Categories of students	N	Mean of scores on Participatory behavior	Std. Deviation
High CT	6	48.17	5.193
Low CT	4	43.75	2.986
Average CT	29	45.45	4.005
Total	39	45.69	4.181

The table 1.4 reveals that the students with high critical thinking have a mean value of 48.17 and the value of standard deviation is 5.193 on the participatory behaviour of elementary school children. And the children with average critical thinking have a mean value of 45.45 and the value of standard deviation is 4.005 and also the students with low critical thinking have a mean average value is 43.75 and standard deviation is 2.986

Table 1.5 One way ANOVA of the scores of the participatory behaviour on sustainable development of female elementary school children having differential level of critical thinking

	Sum of Squares	DF	Means square	F	Sig.
Between Groups	53.552	2	26.776	1.578	.220
Within Groups	610.756	36	16.965		
Total	664.308	38			

From table 1.5 it is observed that the F value of 1.578 that is not significant at 0.05 level. Hence the null hypothesis declares that the participatory behaviour on sustainable

development of elementary school female children belonging to differential level of critical thinking do not differ significantly is accepted.

H03 The participatory behaviour on sustainable development of elementary school male children belonging to differential levels of critical thinking do not differ significantly.

Table 1.6 Mean and standard deviation of the scores of participatory behaviour on sustainable development of elementary school children having differential level of critical thinking

Categories of students	N	Mean of scores on Participatory Behaviour	Std. Deviation
High CT	9	48.67	5.979
Low CT	11	50.09	4.929
Average CT	41	47.80	5.129
Total	61	48.34	5.209

This table 1.6 reveals that the students with high critical thinking have a average mean value of 48.67 and the value of standard deviation is 5.979 on the participatory behaviour of elementary school male children. And the students with average critical thinking have aaverage mean value of 47.80 and standard deviation is 5.129 and also the students with low critical thinking have a mean value of 50.09,and the value of standard deviation is 4.929 respectively.

Table 1.7 One way ANOVA of scores of participatory behaviour on sustainable development of elementary school children having differential level of critical thinking

	Sum of Squares	DF	Means square	F	Sig.
Between Groups	46.422	2	23.211	.851	.432
Within Groups	1581.348	58	27.265		
Total	1627.770	60			

From table no 1.7 it is observed that The F value of 0.851 is not significant at 0.05 level. Hence, according to the null hypothesis the participatory behaviour on sustainable development of elementary school male children belonging to differential level of critical thinking do not differ significantly is accepted.

H04 There is no significant difference in the critical thinking of children having differential level of participatory behaviour.

Table 1.8 Mean and standard deviation of the scores of critical thinking of elementary school children having differential level of participatory behaviour

Categories of students	N	Mean scores of critical thinking	Std. Deviation
High participatory behavior	18	26.44	4.592
Low participatory behavior	12	27.92	3.579
Average participatory behaviour	70	26.97	4.065
Total	100	26.99	4.089

This table 1.8 reveals that students with high participatory behaviour have a mean value of 26.44 and standard deviation value of 4.592 on the critical thinking of elementary school children. And the children with average participatory behaviour have a mean value of 26.97 and standard deviation is 4.065 and also the students with low Participatory behaviour have a mean value of 27.92 and standard deviation is 3.579 respectively on critical thinking.

Table 1.9 One way ANOVA of scores of critical thinking of elementary school children with differential level of participatory behavior

	Sum of Squares	DF	Means square	F	Sig.
Between Groups	15.686	2	7.843	.464	.630
Within Groups	1639.304	97	16.900		
Total	1654.990	99			

From table no 1.9 it is observed that the F value of 0.464 is not significant at 0.05 level. Hence, according to the null hypothesis there is no significant difference in the critical thinking of students having differential level of participatory behaviour is accepted. In other words we can say that the elementary school children having differential level of participatory behaviour do not differ in their critical thinking.

CONCLUSION

The level of participatory behaviour of 7th class school children of Punch district, do not differ with respect to differential level of critical thinking. The researcher found that the participatory behaviour on sustainable development of elementary school female children belonging to differential level of critical thinking do not differ significantly. The participatory behaviour on sustainable development of elementary school male children belonging to differential levels of critical thinking do not differ significantly. It was found that there exists no difference in the critical thinking of children having differential level of participatory behaviour.

Therefore, from the above analysis it is clear that the participatory behavior of elementary school children of punch district with respect to differential level of critical thinking is almost similar and do not differ significantly.

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