

Behavior towards sustainable development of PG students of Sidho-Kanho-Birsha University

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ABSTRACT

The article presents the results of the survey conducted among postgraduate students of Sidho-Kanho-Birsha University, West Bengal, India regarding their behaviour towards sustainable development. The data collected from 143 samples by using self developed questionnaire having 25 items regarding behaviour towards sustainable development. Data has been analysed by applying suitable statistical technique with the help of SPSS version - 17. The results of the study indicates that students belongs to science stream have favourable behaviour towards sustainable development than that of students belongs to humanities stream. However, no significant difference exists between male and female students regarding their behaviour towards sustainable development.

Keywords:

Introduction

The concept of sustainable development emerged in 1970s along with the rapid development of industrialization. After the publication of World Commission on Environment and Development (1987), commonly known as Brundtland Commission, the concept of sustainable development has been popularize which is as defined the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. According to Goldstein (2012), sustainable development represents an ongoing process with systemic approaches that require creativity, flexibility and critical reflection. Hauff (1987) described it as a growth that allows respecting the limits of environmental resources, preserving the genetic diversity and making optimum use of energy and raw materials. Thus question arises what to be sustained and what to be develop. First category included three major categories viz. nature, life support systems, and community as well as intermediate categories for each, such as Earth, environment and cultures whereas people, economy and society falls under the second category (Kates et.al, 2005). Hence, education for sustainable development (ESD) plays a crucial role for enhancing the ability of the leaders and citizens of tomorrow to create solutions and find new paths to a better, more sustainable future. It is a concept encompassing a vision of education that seeks to empower people of all ages to assume responsibility for creating a sustainable future (Fien and Maclean, 2000). Agenda 21 (1992) recommended for reorientation of curriculum as well as creation of understanding and knowledge on the environment among students would may change their behaviour and attitudes that help them to take actions for solving their local environmental problems.

Unfortunately, our current level of knowledge, skills and experience do not able to solve all the contemporary issue on environmental, societal and economic problems. Though several publications are available on sustainable development in India, there is no attempt to assess the knowledge and behaviour towards ESD at university level. So, the investigators tried to focus to assess the knowledge and behaviour towards sustainable development at university level as they are more concerned with environmental deterioration.

Review of literature

Alexandar. R. (2012) has examined student's knowledge, behavioural attitudes, and actions towards environmental problems, issues, conservation and protection of biodiversity which indicated that the male teachers had more favourable environmental attitudes as well as the teachers working in Government schools had better environmental awareness as compared to private schools. Drayson et al. (2011) has investigated about the student attitudes and skills for sustainable development. The overall findings of this study indicated that informal learning opportunities enhanced their attitudes and skills towards sustainable development. Dauti (2014) studied an assessment of environmental awareness towards sustainable development among selected grade twelve pupils at Lusaka district, Zambia. The

findings of the study revealed that the average respondents' levels of understanding of environmental issues especially in relation to sustainable development were low. Sheth et al. (2011) explained the connections between sustainability and attitudes towards consumption choices which indicated that the impact of consumption choices relates to economic, social and environmental well being at a micro-level. Michalos et. al (2009) showed that age were somewhat more disposed towards sustainable lifestyles. Torbjornsson et. al (2011) found that women possessed more favourable attitude towards sustainable behaviour than that of their male counterpart.

Objectives of the study

The study was conducted with the following objectives:

- ❖ To compare between male and female P.G. students of S. K. B. University towards their behavior concerning sustainable development.
- ❖ To compare between Science and Arts P.G. students of S. K. B. University towards their behavior concerning sustainable development.
- ❖ To study the interaction between gender and stream of study of P.G. students of S. K. B. University towards their behavior concerning sustainable development.

Hypotheses of the study:

In order to conduct the study smoothly, following hypotheses has been framed :

H₀₁ : There is no significant difference exist between male and female PG students towards their behavior concerning sustainable development.

H₀₂ : There is no significant difference exist between science and humanities PG students towards their behavior concerning sustainable development.

H₀₃ : There is no significant interaction exist between gender and stream of study of PG students towards their behavior concerning sustainable development.

Population of the study:

All the post graduate students of Sidho-Kanho-Birsha University are the population of this study.

Sample of the study:

Proportionate sample of 143 students randomly selected from the various department of Sidho-Kanho-Birsha University. The sample profile is given in Table 1.

Table 1. Sample profile

	Science	Humanities	Total
Male	35	52	87
Female	28	28	56
Total	63	80	143

Methodology

Descriptive survey type method has been used in this study. Survey was conducted to collect primary data for testing the hypotheses. Participants were invited to complete the questionnaire with a schedule to collect personal information. All subjects were asked to respond to the questionnaire and their responses were guaranteed to be confidential.

Tools used

Behaviour concerning sustainable development inventory developed by the investigators has been used for collecting data for this study. This is a five point likert type scale consists of 25 items.

Analysis and interpretations

Descriptive statistics

Descriptive statistics can reduce lots of data into a small summery. For this study descriptive data in the form of mean and standard deviation (SD) along with 't' critical ratio is presented in Table 2.

Table 2. Descriptive data along with 't' critical ratio

Pair of comparison	N	Mean	SD	Mean Difference	t- value
Male	87	33.47	5.61	0.99	1.08
Female	56	34.46	4.97		
Humanities	80	32.80	5.21	2.25	2.57*
Science	63	35.05	5.43		

*Significant at 0.01 level

Inferential statistics

Inferential statistics plays a pivotal role in hypothesis testing where it is used to determine if a null hypothesis can be rejected or retained. For the present study we have constructed a two way (2×2) factorial design for the analysis of different variables (Table 3).

Table: 3. Summary of ANOVA results

Source of variation	SS	df	MS	F ratio
A (Gender)	29.89	1	29.89	1.09
B (Stream)	198.05	1	198.05	7.25*
A \times B	124.63	1	124.63	4.56*

*Significant at 0.01 level

Testing of hypotheses

Testing of H_01

The mean scores of behaviour towards sustainable development for male and female postgraduate student is 33.47 (S.D=5.61) and 34.46 (S.D=4.96) respectively. F- value for gender is found to be 1.095 (Table 3) which is less than critical F value at 0.01 level. Moreover, t-value for the pair of boys and girls postgraduate students is found 1.079. Both the results are not significant at 0.01 level. This clearly indicates the acceptance of H_01 at 0.01 level.

Testing of H_02

The mean scores of behaviour towards sustainable development for humanities and science postgraduate student is 32.80 (S.D=5.21) and 35.05 (S.D=5.21) respectively. F- value for stream of study is found to be 7.25 (Table 3) which is higher than critical F value at 0.01 level. Moreover, t-value for the pair of humanities and science postgraduate students is found 2.57. Both the results are significant at 0.01 level. This clearly indicates the rejection of H_02 at 0.01 level.

Testing of H_03

From Table 3, F value for the interaction between gender and stream of study is found to 4.56 which is significant at 0.01 level. Hence, H_03 is rejected. In order to analyse which pair is significant, Table 4 has been constructed as given below :

Table 4. Presenting 't' value for different pairs

Humanities male	52	33.29	5.75	1.01	0.81
Humanities female	28	32.28	3.867		
Science male	35	33.77	5.45	2.87	2.54*
Science female	28	36.64	5.05		

*Significant at 0.01 level

From the above table it is clear that behaviour towards sustainable development for science male is higher than that their female counterparts. However, no such difference is found for humanities students.

Discussions

The result showed that behaviour towards sustainable development depends on the curriculum in which the student studied. When the curriculum included with the content of sustainability and delivered to the student through effective teaching, it transformed the concepts to the student and subsequently changed their behaviour. Hence, the science students have more favourable behaviour towards sustainable development as their enriched with knowledge focusing on sustainable development. It is also interesting to note that behaviours towards sustainable development do not depend on gender.

Conclusion

Education for sustainability helps students to understand and value sustainability as well as to get integrated in the changes necessary for sustainability. As there is no significant difference in behaviour towards sustainable development between male and female postgraduate student, no special activities should be framed on the basis of gender but in order to minimize the difference in behaviour towards sustainable development among science and humanities postgraduate students suitable curriculum to be developed for humanities students .

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