

ATTITUDE OF POST GRADUATE STUDENTS TOWARDS SUSTAINABLE DEVELOPMENT

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ABSTRACT

The present study is an effort to understand the student's attitude towards sustainable development. This study conducted for measuring the attitude of post graduate students towards sustainable development in Burdwan district. Sample of the study was 100 PG students under Burdwan district. The survey method and stratified random sampling technique has been used in selecting the sample. The means, standard deviation, t-test, ANOVA has been applied for the interpretation of the findings. The result shows that students have high attitude towards sustainable development and there is no significant interaction between student's gender, residence and stream of study.

Keywords: Attitude, Post Graduate Students, Sustainable Development, ANOVA, t'- test

1. Introduction

“Physical insecurity, economic vulnerability and injustice provoke violence. The greatest danger arises when weak institutions are unable to absorb or mitigate...social tensions. Security, along with justice, is consistently cited as an important priority by poor people in all countries” ----- (UN High Level Panel, 2013:64).

Environmental sustainability is a global concept today. It is an approach to deal with man's relationship with resources, pollution, conservation, technology and urban and rural planning to the bio-sphere. Today, our environment is polluted due to various anthropogenic factors. Educators, scientists, environment specialists and policy makers are rapidly pointing towards the human activities responsible for the destruction of the environment. To get rid of this problem, firstly we have to make the citizens aware. It can be done possible by the teaching-society (Bhakta & Guha, 2017). Understanding college students' perception of sustainability is paramount as today's students will soon be driving our economy and taking on the responsibility of maintaining a sustainable society. This study conducted a survey of college students attending two regional universities in the United States to capture their current experience levels, expectations, and perceptions with regard to various aspects of sustainability utilizing a questionnaire consisting of structured questions about sustainability knowledge/familiarity levels, green product purchase behavior, attitude-behavior relationship, and sustainability education (Jeong, Jung, & Koo, 2015). Many educations for sustainable development (ESD) programs are designed to change attitudes and values toward the natural environment. However, psychological research indicates that several factors in addition to attitude influence behavior, including contextual support, social norms, action difficulty, and habitual behavior. Thus, if attitude change is to translate into altered behavior, education must extend beyond attitudes to assist people to act in ways consistent with their values (Arbuthnott, 2009).

2. Review related literature

Zainordin, N., Wahi, W., Petrus, M., & Koh, C.T. (2017) have conducted a study on :Sustainable Development Attitude: A Study On Perception Among Private & Public Higher Learning Institutions Student In Malaysia” The purpose of this study is to evaluate student's perception on sustainable development concept and knowledge. The overall findings reveal that even they are come from two different types of intuition but they are actually having the same perception towards sustainable development concept practicing in their intuition. The weaknesses found in this study is a challenge to their intuition to provide clear picture on sustainable development concept and how they can react to achieve and well-implemented this concept in their institutions. Bhakta, K., & Guha, A. (2017) have conducted a study on “Knowledge And Attitude of M.Ed. Trainees Towards Environmental Sustainability” .The study revealed that educational stream had no significant impact on the difference of mean scores of knowledge and attitude of trainees towards environmental sustainability. On the other hand it was found that though gender had no significant impact on difference of mean scores of knowledge of trainees but it had significant impact on difference of mean scores of attitude of trainees towards environmental sustainability. Moreover, it was seen that

knowledge and attitude towards environmental sustainability had significant moderate positive correlation ($r= 0.445$). **Jeong, M.M., Jung, Y., & Koo, D.D. (2015)** have conducted a study on “College Students’ Perceptions of Sustainability”. The study’s findings support the growing importance of encouraging sustainable behavior among college students and provide a benchmark against which to measure the effectiveness of future efforts to improve sustainability education and foster sustainable behaviors. **Dibra, M. (2013)** has conducted a study on “Students’ Perceptions and Attitudes toward Sustainable Tourism Development in Albani”. The findings from descriptive data analysis provide evidence on the costs and benefits of current development of tourism and also provide students’ suggestions on a sustainable future of tourism in this country. In general, tourism students’ knowledge and perceptions towards sustainable tourism development in Albania have not been analyzed up to now. Through this study we hope to contribute to filling this gap, by offering the first empirical study that measures students’ knowledge towards sustainable tourism development and their suggestions to promote it. Findings of this study are an important contribution for setting up the strategy of sustainable tourism development in Albania. **Arbuthnott, K.D. (2009)** has conducted a study on “Education for sustainable development beyond attitude change”. The purpose of this paper is to review the psychological research showing weak correlation between attitudes and behavior, the factors that mediate this relationship, and to describe the implications of these findings for university institutions and ESD programs. The results of the reviewed research indicate that attitude-behavior correlations are mediated by several factors, including contextual conditions such as inconvenience and personal factors such as habits.

2.1 Objectives of the study

The main objectives of the present study are:

1. To study the difference between post graduate students in attitude towards sustainable development with regard to gender.
2. To study the difference between post graduate students in attitude towards sustainable development with regard to residence.
3. To study the difference between post graduate students in attitude towards sustainable development with regard to their stream of study.
4. To study the primary interaction effect between gender and residence.
5. To study the primary interaction effect between gender and stream of study.
6. To study the primary interaction effect between residence and stream of study.
7. To study the secondary interaction effect between gender, residence and stream of study.

2.2 Hypotheses of the study

Hypotheses are formulated in the null form.

1. **H₀₁**: There is no significant difference in attitude towards sustainable development between male and female post graduate students.
2. **H₀₂**: There is no significant difference in attitude towards sustainable development between rural and urban post graduate students.
3. **H₀₃**: There is no significant difference in attitude towards sustainable development between science and arts post graduate students.
4. **H₀₄**: there is no significant interaction effect between gender and residence.
5. **H₀₅**: there is no significant interaction effect between gender and stream of study.
6. **H₀₆**: there is no significant interaction effect between residence and stream of study.
7. **H₀₇**: there is no significant secondary interaction effect between gender, residence and stream of study.

2.3 Delimitations of the study

The delimitations of the present study are as follows:

Geographical Area

The investigation was delimited to only Burdwan district of West Bengal.

Level of Education

- i) The study was restricted to the post graduate students of the said district.
- ii) The general university students affiliated to Burdwan University in Burdwan district was considered as the subjects of the present study.

3. Methodology

The present study is based on survey method, particularly, the normative survey research method.

3.1 Population of the Study

All the post graduate students in Burdwan district of West Bengal comprised the population of this study.

3.2 Sample and Sampling Procedure

100 PG students (48 male and 52 female) from university in Burdwan district were taken as representative sample of the whole population. Stratified Random sampling technique was adopted for selecting the schools.

3.3 Tools

Attitude of P.G students towards sustainable development scale developed by the investigators has been used for collecting data for this study. This is five point Likert type scale consists of 47 items.

3.4 Data Analysis

The descriptive analysis was used in analyzing the data of the study. The means, standard deviation, t-test in analyzing data were used. The t-test statistical analysis that was employed in testing the seven null hypothesis used in this study.

4. Results & Discussions

The data has been subjected to statistical analysis and, discussed over subheads under different objectives of the study. The statistical analysis gives a comprehensive idea about the relation between Attitudes of post graduate students towards sustainable development.

4.1 To study the difference between post graduate students towards sustainable development with regard to gender.

To find out PG students Attitude towards sustainable development in relation to students Gender, the data have been subjected to mean, Standard Deviation (SD) and t-test as shown in following Table 4.1.1

Table 4.1.1 Determination of t -value

Pair of Comparison		N	Mean	Std. deviation	Mean difference	t-value
Gender	male	48	180.46	11.991	1.574	0.684*
	female	52	178.88	10.923		

*Not significant

The mean of attitude score for male and female students is found to be **180.46(SD =11.991)** and **178.88 (SD=10.923)** respectively. This result indicates that both male and female students are high attitude towards sustainable development. ‘t’ value between male and female students is found to be 0.684 which is not significant even at 0.05 level. In view of the above H_{01} is accepted and it can be said that, there is no significant difference in attitude towards sustainable development between male and female Post Graduate students.

4.2 To study the difference between post graduate students towards sustainable development with regard to residence.

Compare the Attitude towards sustainable development between Post Graduate Students of rural & urban areas, the data has been subjected to Mean, SD and t-test which are shown in the following table 4.2.2

Table 4.2.2: Determination of t -value

Pair of Comparison		N	Mean	Std. deviation	Mean difference	t-value
Residence	rural	51	178.51	13.144	2.307	1.017*
	urban	49	180.82	9.280		

* Not significant

From Table 4.2.2, it is found that t-value (**t=1.017**) is not significant at 0.05 level. Hence, H_{02} is also accepted and it can be said that, there is no significant difference in attitude towards sustainable development between rural and urban Post Graduate students.

4.3 To study the difference between post graduate students towards sustainable development with regard to their stream of study.

To find out Attitudinal Variation towards sustainable development in relation to Stream of Study, the data has been subjected to Mean, SD and t- value which are shown in the following table 4.3.3

Table 4.3.3: Determination of t -value

Pair of Comparison	N	Mean	Std. deviation	Mean difference	t-value	
Stream	science	51	181.82	12.049	4.456	1.986*
	arts	49	177.37	10.358		

* Not significant

The Table 4.3.3 shows Mean of Arts and Science are **177.37 and 181.82** respectively. Both students are high attitude towards sustainable development. The calculated value of t-test is 1.986 which is less than the probability value at 0.05 level of significance. Hence the null hypothesis H_{03} is stand accepted. Thus the result shows that there is no significant difference in attitude towards sustainable development between science and arts Post Graduate students.

4.4 To study the primary interaction effect between gender and residence.

Inferential statistics plays a pivotal role in hypothesis testing where it is used to determine if a null hypothesis can be rejected or retrained. For the present study we have constructed a two way (**2×2×2**) **factorial design** for the analysis of different variables (Table 4.4).

Table No 4.4: summary of Multi ways ANOVA results

Source of variation	SS	df	MS	F- ratio
Gender (A)	5.837	1	5.837	0.047*
Residence(B)	34.54	1	34.54	0.278*
Stream of study(C)	529.895	1	529.895	4.271*
A x B	176.602	1	176.602	1.423*
A x C	301.478	1	301.478	2.430*
B x C	621.309	1	621.309	5.007*
A x B x C	100.936	1	100.936	0.813*
Within group	11415.273	92	124.079	

*Not significant

From Table 4.4 shows that the primary interaction between gender and residence towards sustainable development. The calculate value of F-test is **1.423** which is less than the probability value at 0.05 level of significance. Hence the null hypothesis H_{04} is accepted. Thus the result shows that there is no significant primary interaction effect between gender and residence.

4.5 To study the primary interaction effect between gender and stream of study.

The interaction between gender and stream of study of PG students on the attitude towards sustainable development is not significant as calculate by F-value which is **2.430** (Table no 4.4). So the null hypothesis H_{05} is accepted.

4.6 To study the primary interaction effect between residence and stream of study.

From Table 4.4, it is found that F-value (**F=5.007**) is not significant at 0.05 level. Hence, H_{05} is also accepted and it can be said that, there is no significant primary interaction effect between residence and stream of study.

4.7 To study the secondary interaction effect between gender, residence and stream of study.

From Table 4.4, F-value for the secondary interaction between gender, residence and stream of study is found to **0.813** which is not significant at 0.05 levels. Hence H_{07} is accepted and it can be said that, there is no significant secondary interaction effect between gender, residence and stream of study.

5. Conclusions

From the above findings and discussion, it can be said that post graduate students attitude towards sustainable development is independent with regard to gender, residence and stream of study. Both male and female, rural and urban and science & arts students are high attitude towards sustainable development and male students have slightly higher attitude towards sustainable development than their female counterpart. And also urban students are more attitude than rural students and science students are slightly high attitude towards sustainable development than arts students.

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