Scholarly Research Journal for Humanity Science & English Language,
Online ISSN 2348-3083, SJ IMPACT FACTOR 2016 = 4.44, www.srjis.com
UGC Approved Sr. No.48612, FEB-MAR 2018, VOL- 6/26

ATTITUDE OF PUPIL TEACHERS TOWARDS SUSTAINABILITY

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Abstract

Nature has made available to us a lot of resources to survive but it depends on us how to use those resources. The concept of sustainable development has evolved the term Sustainability. Sustainability builds and preserves those conditions by which humans and nature can exist in creative coordination and which will permit accomplishing the social, economic and other requirements of present and future generations. Sustainability word has been derived from the Latin word meaning 'to hold'. We can say that it is a type of an ability or capacity of something which can maintain and sustain itself. If we say that an activity is sustainable, then that activity should be able to continue forever. It is being widely seen today that the attitude of pupil teachers is gradually changing in a developmental sense, due to adaptation of modern ways of living and altered lifestyle pattern. Here an attempt has been made to study the attitude towards sustainability of pupil teachers .The study included pupil teachers of Pauri Garhwal and Dehradun districts.

Keywords: *Pupil Teachers, Sustainable Development, Attitude, Sustainability*

Introduction

In the last few years, we all have seen a very huge change in the discussion of issues related with our environment and our development. Now, everyone is concerned about achieving sustainable development .And suddenly the phrase 'sustainable development' have become very much pronounced. Progress or development is the process which is continuing since ages but the nature of development takes different shape at different time. Development has been taking place with respect to different eras and places but it has been always with human race. It seems very tough to determine which nations are more developed and which are less? The nations should be differentiated between developed and under developed on the basis of the distribution of their resources and how they are using these resources in a sustainable way. Sustainable development (SD) is defined in the Brundtland Report as *"development that meets the needs and aspirations of the present without compromising the ability of future generations to meet their own needs."* It is a continuous process that forecasts an anticipated future state for us in which all the resources which we will be using, will meet our all the needs of future without even undermining the "integrity, stability and beauty" of natural

biotic systems. Sustainable development concerns for the capacity of nature to fulfil our needs with the social, political, and economic challenges faced by us. According to Sharmin (2016) the next milestone on the way forward to ensure sustainable development was the world summit on sustainable Development (WSSD) (also named the Earth Summit 2002), that was held in Johannesburg, South Africa from 26th August to 4th September, 2002. Nitin Desai, the secretary General of the World Summit on Sustainable Development", in his introductory note 'Johannesburg and Beyond: Making Sustainable Development a Global Reality' stated:

"Since the Rio Earth Summit in 1992, Sustainable development has emerged a new paradigm of development, integrating economic growth, social development and environment protection as interdependent and mutually supportive elements of long term development. Sustainable development also emphasizes a participatory multi-stakeholder approach to policy making and implementation, mobilizing public and private resources for development and making use of the knowledge, skills and energy of all social groups concerned with the future of the planet and its people.

For the World Bank 'Sustainable development recognized that growth must be both inclusive and environmentally sound to reduce poverty and build shared prosperity for people today and for future generations."

Also, there is a very great responsibility on the present generation to restore, preserve and improve earth's resources for use by our future generations**.** It can also be stated as such production that can be maintained over a long period of time without destructing the environment and the development which could balance interests of today with the protection of the interests of future generations. Basically, sustainable living helps in modifying our attitude towards sustainability and in making decisions. We must live within the means of our natural systems to live sustainably. Sustainable living means meeting present ecological, societal, and economical needs without compromising them for future generations. In broader terms, sustainable living may be described in terms of four interconnected social domains: economics, ecology, politics and culture. All the students must learn from different perspectives of sustainability to get the necessary skills and knowledge to ensure that they have positive attitude towards sustainability for which the attitude towards sustainability of the pupil teachers should be calculated.

In spite of the great importance of attitude towards sustainability of pupil teachers, only a few studies have been conducted on this. Realizing the importance of sustainability in the society

and the role which pupil teachers are supposed to play to achieve Sustainable Development Goals, the researcher has worked on the attitude of B.Ed. pupil teachers towards sustainability.

The main objective of the study was to compare the attitude of male and female pupil teachers towards sustainability for which null hypotheses were framed.

Alice Watling and Emma Zhow (2011) studied to find out whether people have positive or negative attitudes towards sustainability and how knowledge affects people's attitudes. The findings of the study showed that education and knowledge about Sustainability plays an important role in developing positive attitudes towards Sustainability. It was also found that power, gender and age do not play a role towards having a positive attitude towards Sustainability. Jubilee and Manjula (2008) found out that most of the Maldivian secondary school teachers have a moderate awareness of environmental problems, issues and other aspects related with them. It was also reported that there exists a relationship between environmental awareness and environmental attitude and no significant difference was found between male and female teachers in their awareness and attitude towards environmental education. Also the results showed that the environmental awareness predicts the environmental attitude of Maldivian Secondary school teachers.

From the review of the literature, it is concluded that there are many studies related to awareness and attitude on environmental education at school level .The studies also reported that there were no gender difference in the environmental awareness and attitude of students, but majority of the studies showed that rural students had better awareness than their urban counterparts. It means that the rural children are naturally inclined to protecting environment, due to their close proximity to nature since their childhood when compared to urban. From the studies reviewed, it was observed that the variables other than awareness and attitude have not been explored and attitude towards sustainability of pupil teachers has also not been the focus of the various studies made so far. In this research paper, attitude of pupil teachers towards sustainability has been studied.

Methodology

'Descriptive Method' has been used for the present study. All the B.Ed. pupil teachers of B.Ed. colleges affiliated with HNB Garhwal University of district Pauri Garhwal and Dehradun were taken as the population of the study. The sample taken for study was 300. The subjects were selected using random sampling technique from different colleges affiliated to HNBGU. 80 pupil teachers were selected from B.Ed. department of Birla Campus of

HNBGU at Srinagar, district Pauri Garhwal and 220 pupil teachers at District Dehradun were selected from B.Ed. colleges affiliated to Garhwal University.

To know the attitude of pupil teachers towards sustainability, a self-made questionnaire has been used. In which area A was decided to measure the extent which pupil teachers consider to be an aspect of sustainability. Area B was decided to measure how pupil teachers rate the importance of the statements for achieving environmental sustainability and area C was decided to measure the degree to which the proposed reasons of the questionnaire corresponds to the pupil teachers' reasons for doing environmentally sustainable behaviors. Thus, area A, B and C together shows us the attitude of pupil teachers towards sustainability. Thirty questions were framed for area A, twenty five questions were framed for area B and again twenty five questions were framed for area C. The questionnaire was then given to the experts for editing .The experts deleted some questions and made modification in some statements. After modification there were twenty five questions in area A, sixteen questions in area B and twenty one questions in area C. This questionnaire was then given to 100 pupil teachers of Nalanda College of Education at Dehradun District. After consulting the pupil teachers, repeated questions and vague questions were also removed. Final questionnaire had 22 questions in area A, 12 questions in area B and 19 questions in area C.

Cronbach's Alpha method was applied to determine the reliability of the questionnaire. It was found to be 0.938. The Validity was established for the questionnaire to measure attitude towards sustainability. As per the suggestion and the opinions of the nine experts to whom the draft was sent face validity was determined. Thus, questionnaire to measure attitude towards sustainability was found to be valid and reliable to measure attitude towards sustainability.

The present scale is a seven point scale and the subjects were instructed that they have to respond on only one alternative of each item by marking a (✓) checkmark in the column which they consider to be true to the best of their knowledge. Forty-nine statements are positive and four statements are negative in the scale. For positive statements, 7 marks to entirely agree, 6 marks to mostly agree, 5 marks to somewhat agree, 4 marks to indifferent, marks to somewhat disagree, 2 marks to mostly disagree and 1 mark to entirely disagree are assigned. And just reverse is the assignment of marks for negative statements.

The attitude towards sustainability was measured on the basis of total score obtained by the respondent, adding all the scores in three areas. The minimum score that could be obtained for attitude towards sustainability is 53 as there are 53 statements in the questionnaire and the

maximum score is 371 which is the maximum value one could get if all the responses would have been correct. Therefore the range of scores is from 53 to 371. This range was divided into seven levels. The pupil teachers were categorized as having poor, very low, low, average, high, very high and excellent attitude towards sustainability (Table.1).

Table.1 Categorization of pupil teachers

Levels	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**
Attitude towards sustainability	Poor	Very low	Low	Average	Good	Very good	Excellent
Total scores obtained (A+B+C)	53 to 99	100 to 144	145 to 189	190 to 234	235 to 279	280 to 324	325 to 371

Results

Categorization of pupil teachers on the basis of their attitude towards sustainability

Table- 2: Classification of pupil teachers

Leve1	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**
1	6	10	81	179	23	0

Table-2 presents the categorization of pupil teachers on the basis of their level of attitude towards sustainability. Maximum number of pupil teachers 179 were found in level 5,followed by 81 students at level 4 , 23 students at level 6 , 10 students were at level 3, 6 students at level 2 and minimum number of pupil teacher was found at level 1 and even not a single pupil teacher was found at level 7 .

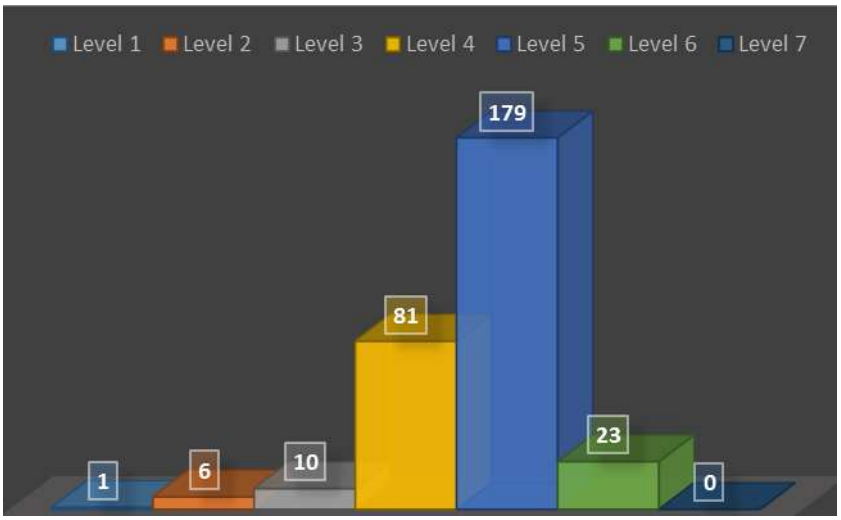

Fig.-1: Categorization of pupil teachers

Fig.-1 shows that 1(.33%) pupil teacher had poor attitude towards sustainability,6(2%) pupil teachers had very low attitude towards sustainability, 10(3.33%) pupil teachers had low

attitude towards sustainability, 81(27%) pupil teachers had average attitude towards sustainability, 179(59.67%) pupil teachers had good attitude towards sustainability,23(7.67%) pupil teachers had very good attitude towards sustainability and none of the pupil teacher had excellent attitude towards sustainability.(Fig.-1)

Attitude of male and female pupil teachers towards sustainability

Table-3.

(df=298)

	Gender	N	Mean	Std. Deviation	Std. Error Mean	t-value
Perception	Male	57	98.00	23.83	3.16	-2.38*
	Female	243	104.38	16.63	1.07	
Knowledge	Male	57	52.40	10.56	1.40	-1.45
	Female	243	54.30	8.51	.55	
Behaviour	Male	57	81.32	14.15	1.87	-1.93*
	Female	243	84.94	12.42	.80	
	Female	243	243.63			

** = *Significant at 0.01 Level of Significance.*

* = *Significant at 0.05 Level of Significance.*

The table no.1 presents the attitude towards sustainability of male and female pupil teachers. Total pupil teachers studied were 300 out of which 57 were male and 243 were female. The mean score of perception towards sustainability, knowledge of sustainability and behaviour for sustainability of male pupil teachers were found 98, 52.40, and 81.32 respectively. These mean scores indicate that male pupil teachers have maximum perception towards sustainability which is followed by behaviour for sustainability and then knowledge of sustainability. These values show that male pupil teachers have maximum perception towards sustainability and minimum knowledge of sustainability.

On the other hand, the mean score of perception towards sustainability, knowledge of sustainability and behaviour for sustainability of female pupil teachers were 104.38, 54.30 and 84.94 respectively. These mean scores indicate that female pupil teachers have maximum perception towards sustainability which is followed by behaviour for sustainability and then knowledge of sustainability. These values show that female pupil teachers have maximum perception towards sustainability and minimum knowledge of sustainability.

The table shows that the mean and S.D. values of the male and female pupil teachers for their perception towards sustainability were 98, 23.83 and 104.38, 16.63 respectively and SE was found to be 3.16 and 1.07. The calculated t value for perception towards sustainability was found -2.38, which is significant at 0.05 level of significance. Thus, the null hypothesis formulated that there will be no significant difference between the perception towards

sustainability of male and female pupil teachers is rejected. It means that there is significant difference between the perception towards sustainability of male and female pupil teachers. Female pupil teachers have more perception towards sustainability than male pupil teachers. (Fig.2)

The table also depicts that the mean and S.D. values of the male and female pupil teachers for their knowledge of sustainability were 52.40, 10.56 and 54.30, 8.51 respectively and SE was found to be 1.40 and .55. The calculated t value for knowledge of sustainability was found -1.45, which is not significant at 0.05 level of significance. Thus, the null hypothesis formulated that there will be no significant difference between the knowledge of sustainability of male and female pupil teachers is not rejected. It means that there is no significant difference between the knowledge of sustainability of male and female pupil teachers. (Fig.2)

The table shows that the mean and S.D. values of the male and female pupil teachers for their behaviour for sustainability were 81.32, 14.15 and 84.94, 12.42 respectively and SE was found to be 1.87 and .80. The calculated t value for behaviour for sustainability was found -1.93, which is significant at 0.05 level of significance. Thus, the null hypothesis formulated that there will be no significant difference between the behaviour for sustainability of male and female pupil teachers is rejected. It means that there is significant difference between the behaviour for sustainability of male and female pupil teachers. Female pupil teachers have more behaviour for sustainability than male pupil teachers. (Fig.2)

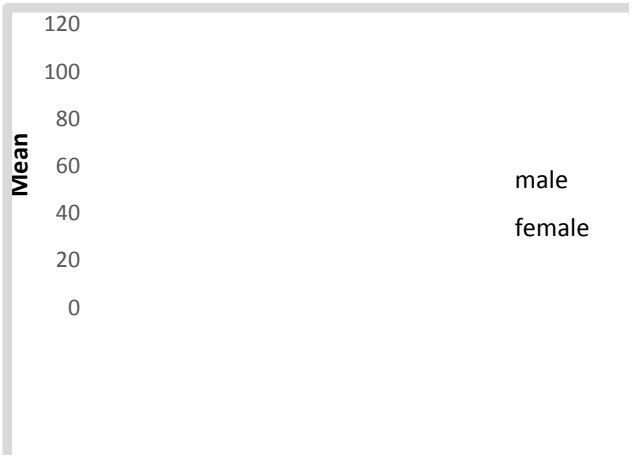

Fig.2

It may be concluded that two t-values are found significant while one t-value is found insignificant. Thus, the hypothesis that there will be no significant difference between the

attitude towards sustainability of male and female pupil teachers is mostly rejected and partly accepted.

Discussion:

In the study of Alice Watling and Emma Zhow (2011) it was found that education and knowledge about Sustainability plays an important role in developing positive attitude towards Sustainability and that power, gender and age do not play a role towards having a positive attitude towards Sustainability. This study also reveals that there is no significant difference between the knowledge of sustainability of male and female pupil teachers. This may be because of the education which everyone is getting equally irrespective of gender. It was found in the present study that female pupil teachers have more perception towards sustainability than male pupil teachers. Again the study revealed that female pupil teachers have more positive behaviour for sustainability than male pupil teachers.

Conclusions

It was found in the study that both male and female pupil teachers have maximum perception towards sustainability and minimum knowledge of sustainability. Minimum knowledge may be due to the fact that the present curriculum is not up to that standard which could provide pupil teachers with all the needed knowledge about sustainability.

It can be concluded from the study that there is significant difference between the perception towards sustainability of male and female pupil teachers. Female pupil teachers have more perception towards sustainability than male pupil teachers. This may be due to the fact that females are more sensitive than males and they perceive all things very deeply.

Also, the study reveals that there is no significant difference between the knowledge of sustainability of male and female pupil teachers. This may be because of the education which everyone is getting equally irrespective of gender.

It is found in the study that there is significant difference between the behavior for sustainability of male and female pupil teachers. Female pupil teachers have more positive behavior for sustainability than male pupil teachers. This may be due to the fact that female pupil teachers have better organizing skills than their male counterparts and they believe in putting the ideas into actions quickly than male pupil teachers.

Thus, it may be concluded that pupil teachers should be motivated to become more positive for sustainable development goals and also towards sustainability. It can be done by organizing conferences, seminars and workshops to develop the positive attitude towards sustainability in them.

Pupil teachers should be guided to accept and adopt the new norms of sustainability as we can't achieve our target of Sustainable Development Goals, if we are not ready to make our attitude positive towards sustainability in a positive and constructive sense. Courses related to sustainability should be taught to the pupil teachers so that they may develop a strong positive attitude to their students in the future.

Thus, it can be concluded that each and every one from us should know what sustainability is and should contribute towards making sustainable development.

For this environmental education must be made part of the curriculum of all the classes. Pupil teachers, who would become teachers in near future must be made more aware for sustainability and sustainable development, since they are going to mould the younger generation according to them. Environmental education must be made compulsory in all the higher education areas. Sustainability and sustainable development must be made part of environmental education.

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