

## Research Article

## Scientific Attitude and Awareness of Environmental Sustainability of Women Secondary Teacher Education Students

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### ABSTRACT

The study was undertaken to study the relationship between the scientific attitude and awareness of environmental sustainability of women secondary teacher education students. A stratified sample of 570 women secondary teacher education students were selected from ten colleges of education in Coimbatore district. The scientific attitude scale and awareness of environmental sustainability inventory were used for collection of data and it was validated by the investigator. The findings revealed that there is a significant relation between scientific attitude and awareness of environmental sustainability of urban secondary teacher education students.

**Keywords:** scientific attitude, environmental sustainability, women teacher education students, secondary education, awareness levels, attitude development

### INTRODUCTION

A thirst for knowledge and an intellectual drive of an individual makes the society towards the setting of wellness. Scientific attitude is an expression of thought based on factual evidence. It includes tolerance to uncertainty, willingness to change opinions and open-mindedness. It is respecting facts. Environmental sustainability is the ability to maintain things or qualities that are valued in the physical environment. Sustainability is about continuity and development is about change. The parliament of Victoria, when it passed the commissioner for environmental sustainability Act, 2003 was using the word environment in the sense of physical environment rather than more universal meaning of the context for anything.

"Environmental sustainability as the maintenance of Natural Capital and as a concept apart from but connected to both social sustainability and economic sustainability" ( John Morelli, 2011). Teachers are the nation builders. They should perform their functions in an effective way with scientific attitude and aware of environmental sustainability.

### **RATIONALE FOR THE STUDY**

A person who possesses scientific attitude has the natural tendency to look for the basic cause which leads to development. An individual with scientific attitude does not remain stick on his views and ideas, but keep on revising them in accordance with the new findings. A person with scientific attitude remains stick to the path of truth. She may try to find out most satisfactory explanation for the physical environment in the world. Physical environments can be considered on all scales from the micro to the locale, global and even large scales. Human beings depend in countless way on the physical environment sustaining desired environmental conditions directly contributes to the sustaining of people.

Teachers have an ability to separate fundamental concepts from the irrelevant or unimportant things. They are the torch bearers of the society. They do everything in a careful analysis and also take their effort to the development of physical environment. Hence the investigator analysed the present study.

### **OBJECTIVES OF THE STUDY**

To find out the level and the relation between the scientific attitude and awareness of environmental sustainability of women secondary teacher education students with regard to residence, age, degree and nature of institution.

### **NULL HYPOTHESES**

1. There is no significant relation between scientific attitude of rural secondary teacher education women students and their awareness of environmental sustainability.
2. There is no significant relation between scientific attitude of urban secondary teacher education women students and their awareness of environmental sustainability.
3. There is no significant relation between scientific attitude of secondary teacher education women students belonging to the age group below 25 years and their awareness of environmental sustainability.

4. There is no significant relation between scientific attitude of secondary teacher education women students belonging to the age group 25 years & above and their awareness of environmental sustainability.
5. There is no significant relation between scientific attitude of secondary teacher education women students possessing arts degree and their awareness of environmental sustainability.
6. There is no significant relation between scientific attitude of secondary teacher education women students possessing science degree and their awareness of environmental sustainability.
7. There is no significant relation between scientific attitude of government secondary teacher education women students and their awareness of environmental sustainability.
8. There is no significant relation between scientific attitude of private secondary teacher education women students and their awareness of environmental sustainability.

#### **METHOD FOR THE PRESENT STUDY**

The investigator has adopted the survey method for this investigation. The present study is done by using a self-made tool Scientific Attitude Scale (SAS) and Awareness of Environmental Sustainability Inventory (AESI).

#### **POPULATION AND SAMPLE FOR THE STUDY**

The population for the present study is women secondary teacher education students in Coimbatore district. Random sampling technique is used for selecting the sample. The sample consists of 570 women secondary teacher education students.

#### **STATISTICAL TECHNIQUES USED**

Percentage analysis and Pearson's correlation co-efficient were used for analyzing the data.

**Table 1: Level of Scientific Attitude of Secondary Teacher Education Women Students**

VARIABLES	Low		Moderate		High	
	No.	%	No.	%	No.	%
Arts	60	10.53	133	23.33	54	9.47

Science	58	10.17	204	35.79	61	10.70
Rural	68	11.93	181	31.75	55	9.65
Urban	50	8.77	156	27.37	606	10.53

It is inferred from the above table that 10.53% of the arts secondary teacher education women students are showing low level, 23.33% of them are showing moderate level and 9.47% of them are showing high level of scientific attitude. It is also inferred from the above table that 10.17% of the science secondary teacher education women students are showing low level, 35.79% of them are showing moderate level and 10.70% of them are showing high level of scientific attitude.

While comparing the arts and science secondary teacher education women students, the science secondary teacher education women students are showing better high level of scientific attitude (10.70) than the arts secondary teacher education women students.

It is inferred from the above table that 11.93% of the rural secondary teacher education women students are showing low level, 31.75% of them are showing moderate level and 9.65% of them are showing high level of scientific attitude.

It is also inferred from the above table that 8.77% of the urban secondary teacher education women students are showing low level, 27.37% of them are showing moderate level and 10.53% of them are showing high level of scientific attitude.

While comparing the arts and science secondary teacher education women students, the science secondary teacher education women students are showing better high level of scientific attitude (10.70%) than the arts secondary teacher education women students.

**Table 2: Level of Environmental Sustainability of Secondary Teacher Education Women Students**

VARIABLES	Low		Moderate		High	
	No.	%	No.	%	No.	%
Arts	48	8.42	160	28.07	39	6.84

Science	57	10.00	215	37.72	51	8.95
Rural	68	9.47	181	36.67	55	7.19
Urban	50	8.95	156	29.12	60	8.60

It is inferred from the above table that 8.42% of the arts secondary teacher education women students are showing low level, 28.07% of them are showing moderate level and 6.84% of them are showing high level of awareness of environmental sustainability.

It is inferred from the above table that 10.00% of the science secondary teacher education women students are showing low level, 37.72% of them are showing moderate level and 8.95% of them are showing high level of awareness of environmental sustainability.

While comparing the arts and science secondary teacher education women students, the science secondary teacher education women students are showing better high level of awareness of environmental sustainability (8.95%) than the arts secondary teacher education women students.

It is inferred from the above table that 9.47% of the rural secondary teacher education women students are showing low level, 36.67% of them are showing moderate level and 7.19% of them are showing high level of awareness of environmental sustainability.

It is inferred from the above table that 8.95% of the urban secondary teacher education women students are showing low level, 29.12% of them are showing moderate level and 8.60% of them are showing high level of awareness of environmental sustainability.. While comparing the rural and urban secondary teacher education women students, the urban secondary teacher education women students are showing better high level of awareness of environmental sustainability (8.60%) than the arts secondary teacher education women students.

**Table 3 :Relation Between Scientific Attitude of Secondary Teacher Education Women Students And Their Awareness of Environmental Sustainability**

Variables	N	Calculated 'r' value	Table Value	Level of Significance	Remarks at 5% level
Rural	304	0.08348	0.088	0.05	NS
Urban	266	0.1661	0.088	0.05	S
Below 25 years	437	0.0136	0.088	0.05	NS
25 years & Above	133	0.11134	0.139	0.05	NS

Arts	247	0.05102	0.088	0.05	NS
Science	323	0.013134	0.088	0.05	NS
Government	120	0.08159	0.139	0.05	NS
Private	450	0.083	0.088	0.05	NS

It is inferred from the above table that there is no significant relation between scientific attitude of rural secondary teacher education women students and their awareness of environmental sustainability. But there is a significant relation between scientific attitude of urban secondary teacher education women students and their awareness of environmental sustainability.

It is inferred from the above table that there is no significant relation between scientific attitude of secondary teacher education women students possessing arts degree and their awareness of environmental sustainability. It is inferred from the above table that there is no significant relation between scientific attitude of secondary teacher education women students belonging to the age group below 25 years ,25 years & above and their awareness of environmental sustainability.

It is inferred from the above table that there is no significant relation between scientific attitude of secondary teacher education women students possessing arts, science degree and their awareness of environmental sustainability. It is inferred from the above table that there is no significant relation between scientific attitude of government, private secondary teacher education women students and their awareness of environmental sustainability.

## FINDINGS

- There is no significant relation between scientific attitude of rural secondary teacher education women students and their awareness of environmental sustainability.
- There is a significant relation between scientific attitude of urban secondary teacher education women students and their awareness of environmental sustainability.
- There is no significant relation between scientific attitude of secondary teacher education women students belonging to the age group below 25 years and their awareness of environmental sustainability.
- There is no significant relation between scientific attitude of secondary teacher education women students belonging to the age group 25 years & above and their awareness of environmental sustainability.

- There is no significant relation between scientific attitude of secondary teacher education women students possessing arts degree in and their awareness of environmental sustainability.
- There is no significant relation between scientific attitude of secondary teacher education women students possessing science degree and their awareness of environmental sustainability.
- There is no significant scientific attitude of government secondary teacher education women students their awareness of environmental sustainability.
- There is no significant relation between scientific attitude of private secondary teacher education women students and their awareness of environmental sustainability.

## CONCLUSION

Imparting accurate knowledge is the main duty of the teaching community. This investigation explores urban secondary teacher education women students have high level of scientific attitude and environmental sustainability. This may be due to the reason that they are desire to get sound and accurate knowledge through internet and magazines. So, encourage the women secondary teacher education students to develop a tendency to look for the basic cause which led to the sustainability of physical, social and biological environment that leads for our goodness in the world.

## REFERENCES

- ♣ Aggarwal, J.C. (1991). Educational Research an Introduction. New Delhi: Arya book Depot.
- ♣ Aggarwal, Y.P. (1990). Statistical methods. Delhi: Sterling Publishers Private Limited.
- ♣ ArchanaTomar, (2007). Environmental Education, Delhi: Kalpaz Publication.
- ♣ Bana Bihari Mishra, (2006). Environmental Awareness of secondary with reference to their intelligence and school background. Journal of all India Association for Educational Research vol.(8 Nos) & 2 March & June 2006 p 71-72.
- ♣ Bhatnagar, AB and Bhatnagar, S.S, (2008). Teaching of science. Meerut: Lall Book Depot.
- ♣ Chawla, P.S (2011). Environmental Conservation and Sustainable development, NewDelhi : Pearl Book.

- ♣ Deepak Chawla and NeenaSondhi (2011). Research methodology concepts and bases. New Delhi: Vikas publishing house pvt Ltd.
- ♣ Krishnamacharyulu,V., & Reddy, G. S. (2007). Environmental Education. Neelkamal Publications Pvt. Ltd.
- ♣ Manoharachary,C.,&JayaramaReddy,P. (2009). Principles of Environmental Studies. Hyderabad: BS Publications.
- ♣ NaranjanPani, (2008). Women Academics in higher education. New Delhi: Mahamaya Publishing house.
- ♣ <http://toolkit.smallbiz.nsw.gov.au/part/17/86/371>
- ♣ <http://www.worldwewant2015.org/sustainability2015>
- ♣ <http://www.microsoft.com/about/corporatecitizenship/en-us/working-responsibly/principled-business-practices/environmental-sustainability/>
- ♣ <http://www.nestle.com/csv/environmental-sustainability>
- ♣ <http://sedac.ciesin.columbia.edu/data/collection/esi/>
- ♣ <http://www.ask.com/question/scientific-attitude-definition>
- ♣ <http://answers.yahoo.com/question/index?qid=20080627172135AA4SHer>
- ♣ [http://wiki.answers.com/Q/Define\\_the\\_different\\_scientific\\_attitudes?#slide=1](http://wiki.answers.com/Q/Define_the_different_scientific_attitudes?#slide=1)