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Environmental Awareness among Teacher Trainees

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“We won’t have a society if we destroy the environment.”

- Margaret Mead

Abstract

The present study was aimed at assessing the environmental awareness among the B.Ed. trainees. The sample included male and female teacher trainees enrolled in government aided and private B.Ed. colleges affiliated to various universities of U.P. state of India. Stratified random sampling technique was adopted for selecting a sample of 188 teacher trainees comprising of 67 male and 121 female teacher trainees of whom 76 were from the science stream while 112 were from arts stream. Out of these 188 teacher trainees, 48 were from government aided B.Ed. colleges and 140 from private B.Ed. colleges. For the present investigation, the Environmental Awareness Test of Teacher (EATT) developed by Seema Dhawan was used. It consisted of 75 items divided into seven dimensions encompassing different aspects of environmental awareness. The raw data so obtained was statistically analyzed using mean, standard deviation and t-test using MS-EXCEL software. The findings of the present investigation indicate that overall the majority of B.Ed. trainees are aware about various aspects of environmental awareness with gender, type of Teacher Education Institutions (TEIs) as well as stream of study of the B.Ed. trainees seems to significantly influence the level of their environmental awareness. The research findings indicate that male B.Ed. trainees exhibit significantly higher levels of environmental awareness than the female trainees. Similarly in the case of TEIs, those from government aided institutions have better environmental awareness as compared to the trainees from private TEIs. Science stream trainees significantly outscored those from Arts stream in terms of the environmental awareness.

Introduction

Human activities such as urbanization, industrialization, nuclear experimentation, means of recreation, agriculture, setting up of power plants, tourism, transportation and above all escalation of population has led to wide scale deterioration of the environment. In order to stem the downward slide of ecological conditions, it is vital that all human beings act more responsibly towards the environment. The need to spread environmental awareness is enormous in the context of successfully addressing environmental problems. Environmental education creates greater awareness in individuals and communities with respect to putting environmental resources to use even while conserving them. Various media and means are used to spread environmental awareness among the people. The electronic media and the print media are the major mediums of spreading information about environment among the populace—educating them about environmental concerns and ways to address these. As nation builders, teachers play a crucial role in curbing the environmental debacle that our globe is headed towards and creating greater awareness in the common man about environmental problems. With children in the plastic age, school offers an effective instrument for imbedding in them the desirable environmental ethics. Teachers can provide a vital link in the delivery of environmental knowledge, its associated problems and their solutions. They play a pivotal role in helping acquaint and sensitize the young minds to the environmental problems and concerns, to inculcate in them healthy personal and social attitude and behaviour towards environment. Thus, creating awareness among students about environment and the problems associated with it so that they can actively work towards environmental conservation in their day to day lives. The ultimate goal of environmental education is to promote the development of responsible environmental behaviour among the young generation.

A number of studies related to environmental awareness among teacher trainees have been conducted in India and abroad in the past few years. Saha (2012) in his investigation on environmental awareness among teacher trainees of West Bengal found that in-service teacher trainees are more aware than pre-service teacher trainees and science teacher trainees are more aware than humanities teacher trainees. Also, male teacher trainees and female teacher trainees, level of environmental awareness are not differ significantly as was the case for govt.-aided college teacher trainees and private college teacher trainees. Sadik (2014) in her study on environmental knowledge and attitudes of teacher candidates investigated the knowledge and attitudes of teacher candidates of Turkey towards environment. The findings of the study revealed that 43% of participants found the Internet and television more effective in environmental awareness. They thought shortening of natural resources is the biggest problem of the world while urbanization is the biggest issue of Turkey. Teacher candidates had a moderate level environmental knowledge with a more positive attitude in terms of environment but low level environmental behaviors. In another related study, Asthana and Divedi (2015) in their study on environmental awareness among B.Ed. students of Dehradun district found that their level of environmental awareness was remarkable high. Sarita, Kavita and Kumar(2015) in their study of responsible environment behaviour among B.Ed. students in relation to their gender and locality reported that there was no significant difference in responsible environment behaviour of boys and girl B.Ed. students. The results also indicated that there was no significant difference in the

responsible environment behaviour of urban and rural B.Ed. students. In contrast, Sunita (2015) in her study of environmental awareness among prospective B.Ed. teachers in relation to their academic streams found no significant differences in their environmental awareness levels. The science and commerce students have high awareness level as compared to the arts stream students.

Teacher trainees are still in the process of learning and if they themselves are well aware of environmental threats as well as pro environmental behaviour then act more responsibly in promoting environmental awareness among their students. Although research efforts have been undertaken in context of environmental education awareness among teachers by many researchers in India and abroad, the researcher hopes that the findings of the present study would ultimately help in gauging the environmental awareness level among the teacher trainees and thus help in formulating future policies and action plans for promoting environmental education among the teachers.

Operational Definitions

Environmental awareness: It refers to not only knowledge about environment but also attitude, values and necessary skills to solve environment related problems.

Teacher Trainees: Students enrolled in full time B.Ed. course in government aided and private teacher education institutions (TEIs) affiliated to a university have been considered for the proposed study.

Objectives of the Study

- To study the level of awareness towards environment among teacher trainees.
- To compare the level of awareness towards environment the male and female teacher trainees.
- To compare the level of awareness towards environment among the teacher trainees enrolled in government and private teacher education institutions (TEIs).
- To compare the level of awareness towards environment among the teacher trainees from Arts and Science streams.

Hypotheses of the study

- There is no significant difference between the level of awareness towards environment among the male and female teacher trainees.
- There is no significant difference in the level of awareness towards environment among the teacher trainees enrolled in government and private teacher education institutions (TEIs).
- There is no significant difference in the level of awareness towards environment among teacher trainees from Arts and Science streams.

Methodology

Keeping in view these considerations, the researcher adopted the descriptive survey method for the present study.

Population

In the present study the population consisted of male and female teacher trainees enrolled in government aided and private B.Ed. colleges affiliated to various universities of U.P. state of India.

Sampling

In the present study, the researcher opted for stratified random sampling technique for selecting a sample of 188 teacher trainees. The sample includes 67 male and 121 female teacher trainees of which 76 were from the science stream while 112 were from arts stream. Out of these 188 teacher trainees, 48 were from government aided B.Ed. colleges and 140 from private B.Ed. colleges.

Tool Used

For the present investigation, the Environmental Awareness Test of Teacher (EATT) developed by Seema Dhawan was used. It consisted of 75 items divided into seven dimensions—I. Forest, II. Pollution, III. Energy Conservation, IV. Wild life & Animals, V. Environment and Related Problem, VI. Population, VII. Teaching Skills of Environmental Education. The maximum score on the EATT was 75 with '0' for incorrect response and '1' for correct response.

Statistical Treatment

The raw data so obtained was statistically analyzed using mean, standard deviation and t-test using MS-EXCEL software.

Findings and Interpretation

Table 1: Level of awareness towards environment among teacher trainees (N= 188)

Areas of Environmental Awareness	Mean	S.D.
Forest	6.39	1.22
Pollution	18.56	2.76
Energy Conservation	4.20	1.05
Wildlife and Animals	2.43	0.87
Environment and related problems	19.40	3.22
Population	4.95	1.67
Teaching Skills of Environmental Education	0.86	0.33
Overall	56.79	3.67

An examination of the contents of Table 1 reveals that the majority of B.Ed. trainees exhibited above average levels of awareness regarding the environment. While their knowledge and understanding about wildlife and animals was below par, their understanding about other situations concerning other environmental aspects like pollution, energy conservation etc. was good.

Table 2: Level of awareness towards environment among male and female teacher trainees

Areas of Environmental Awareness	Male (N= 67)		Female (N=121)		t value	Level of significance
	Mean	S.D.	Mean	S.D.		
Forest	6.91	1.05	6.10	1.31	4.63	0.01
Pollution	19.10	2.33	18.25	2.72	2.25	0.05
Energy Conservation	4.05	0.97	4.29	1.15	1.52	NS
Wildlife and Animals	2.24	0.92	2.54	0.81	2.24	0.05
Environment and related problems	19.78	2.67	19.19	3.22	1.35	NS
Population	5.12	1.54	4.86	1.69	1.07	NS
Teaching Skills of Environmental Education	0.76	0.29	0.92	0.45	2.96	0.01
Overall	57.96	3.44	56.15	3.27	3.39	0.01

A perusal of the data presented in Table 2 indicates that both male and female B.Ed. trainees exhibit considerable awareness about the environment. Gender appears to play a decisive role in the level of environmental awareness among the B.Ed. trainees with male teacher trainees showing much higher levels of environmental awareness as compared to the female trainees. Hence, the first null hypothesis is rejected. Even though education is no longer being confined to members of a particular gender and there is equal exposure to news and reports of events occurring worldwide, gender still seems to be a significant influencing factor among the B.Ed. trainees. This could be possibly attributed to higher levels of interest among male students regarding news, current events and general awareness as compared to the female B.Ed. students. The male and female prospective teachers differ significantly with regards to their level of environmental awareness with regard to aspects concerning knowledge about forests, pollution, wildlife and animals or even environmental education skills. The B.Ed. trainees do not exhibit significant differences in areas pertaining to energy conservation, environment related factors and population. Graphically, the contents of Table 2 maybe depicted as shown in Figure 1.

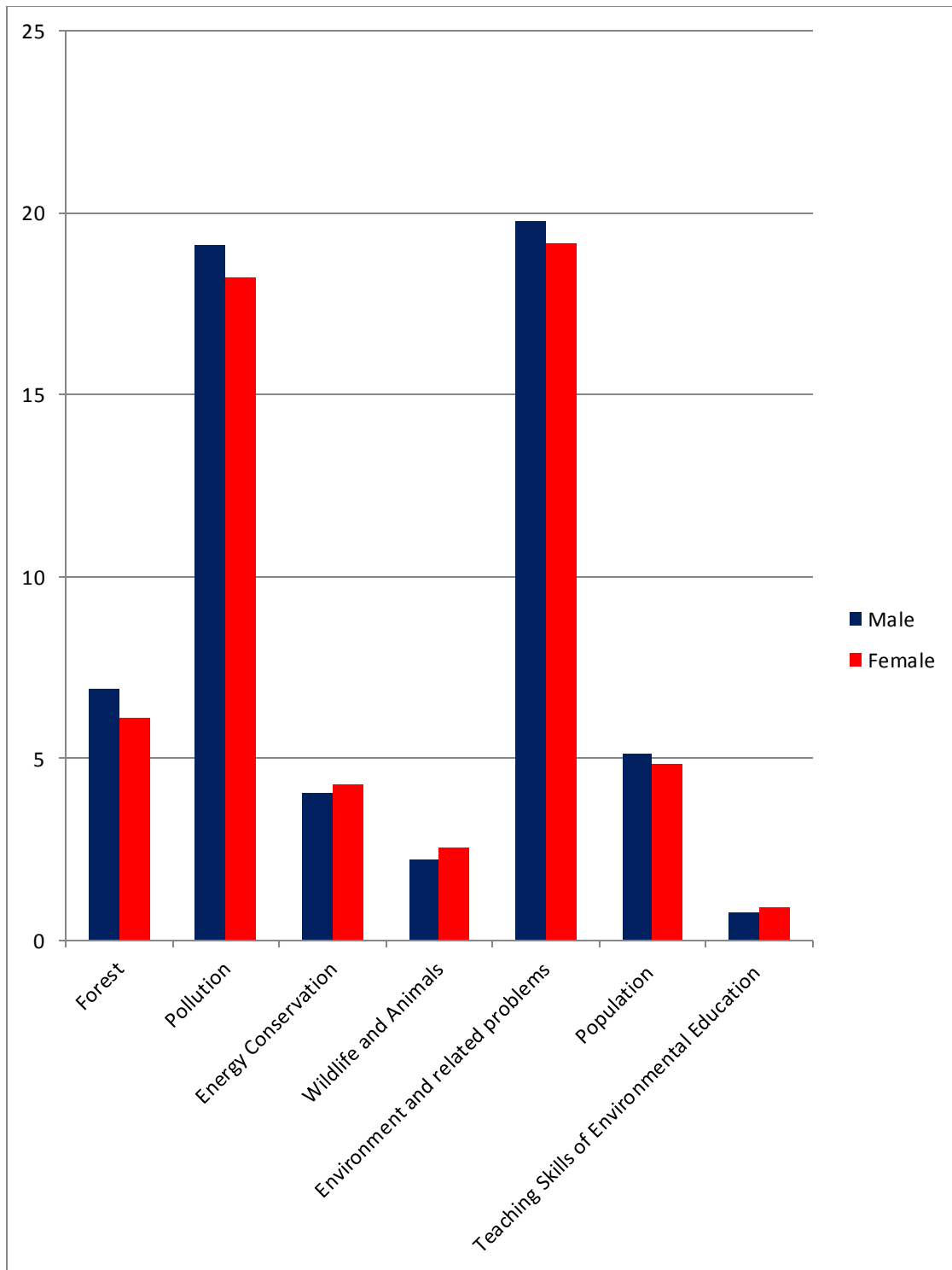


Figure 1: Level of environmental awareness among the male and female B.Ed. trainees

Table 3: Level of awareness towards environment among teacher trainees from government aided and private Teacher Education Institutions (TEIs)

Areas of Environmental Awareness	Govt. aided (N= 48)		Private (N=140)		t value	Level of significance
	Mean	S.D.	Mean	S.D.		
Forest	6.98	1.19	6.19	1.22	3.95	0.01
Pollution	19.25	2.47	18.32	2.05	2.35	0.05
Energy Conservation	4.56	1.33	4.08	1.07	2.26	0.05
Wildlife and Animals	2.81	1.11	2.30	1.01	2.81	0.01
Environment and related problems	20.04	2.67	19.18	2.89	1.88	NS
Population	5.02	1.19	4.93	1.47	0.43	NS
Teaching Skills of Environmental Education	0.94	0.76	0.84	0.34	0.88	NS
Overall	59.60	3.44	55.84	3.27	6.62	0.01

An examination of the data presented in Table 3 reveals that while the B.Ed. trainees have overall good levels of awareness about the environment; the type of Teacher Education Institutions (TEIs) does play a decisive role. Here we find that the B.Ed. trainees from aided TEIs show significantly higher levels of environmental awareness as compared to those from private TEIs. This could possibly due difference in calibre of students from aided and private B.Ed. TEIs. This difference holds true for most of the pertinent aspects of environmental awareness such as knowledge about forests, pollution, energy conservation, wildlife and animals. In areas concerning environmental problems, population and environmental education skills, B.Ed. trainees do not exhibit any significant differences in their levels of awareness. Hence the second null hypothesis is rejected. Graphically, the contents of Table 3 maybe depicted as shown in Figure 2.

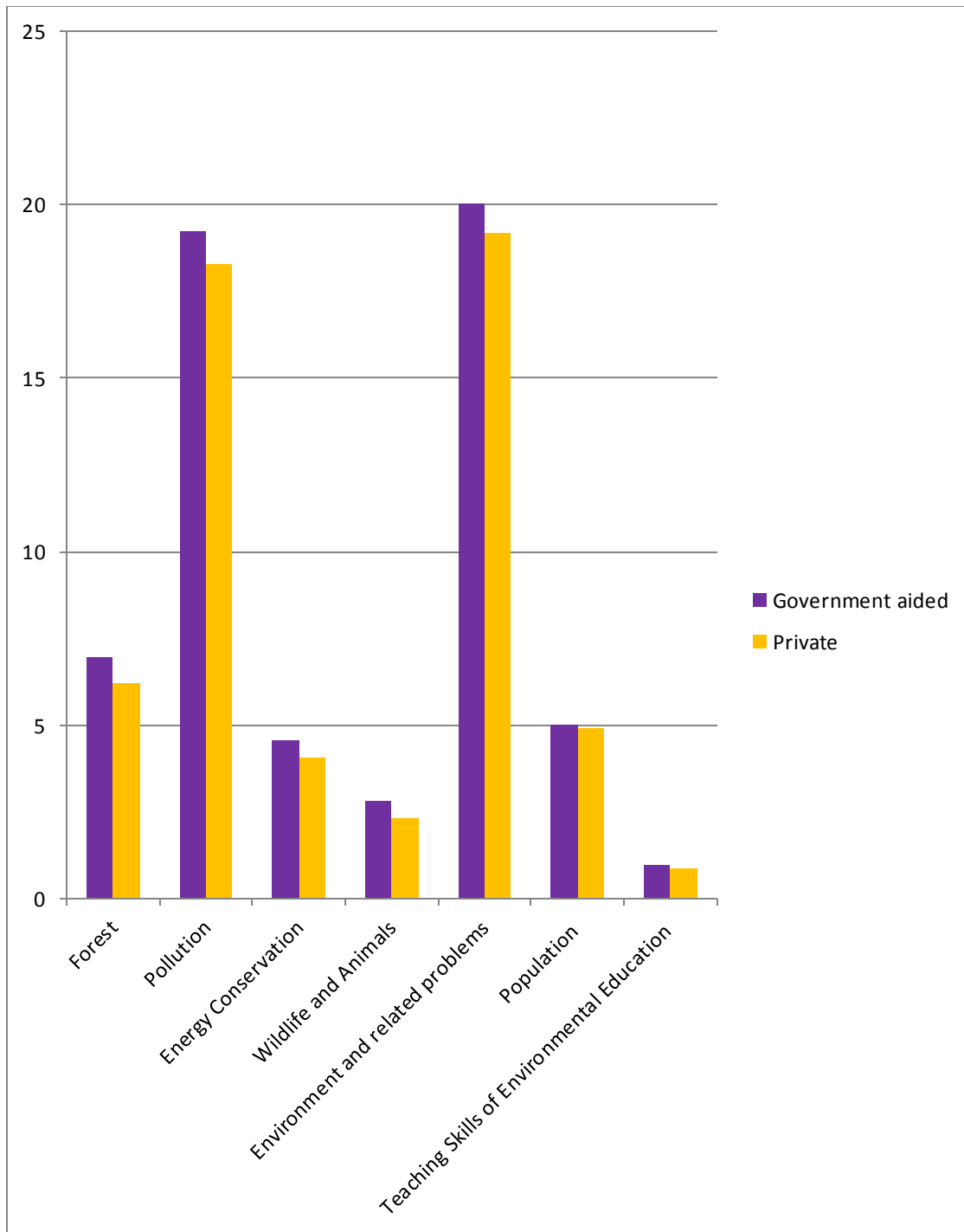


Figure 2: Level of environmental awareness among teacher trainees from government aided and private Teacher Education Institutions (TEIs)

Table 4: Level of awareness towards environment among teacher trainees from Arts and Science streams

Areas of Environmental Awareness	Arts (N= 112)		Science (N=76)		t value	Level of significance
	Mean	S.D.	Mean	S.D.		
Forest	5.94	1.37	7.05	1.56	5.02	0.01
Pollution	17.89	2.11	19.54	2.89	4.27	0.01
Energy Conservation	3.89	1.05	4.66	1.31	4.28	0.01
Wildlife and Animals	2.02	1.22	3.04	1.02	6.21	0.01
Environment and related problems	18.53	2.67	20.68	2.33	5.85	0.01
Population	4.77	1.71	5.21	1.87	1.64	NS
Teaching Skills of Environmental Education	0.80	0.39	0.95	0.54	2.08	0.05
Overall	53.84	3.21	61.13	3.57	14.31	0.01

A perusal of the data presented in Table 4 indicates that B.Ed. trainees from arts and science stream exhibit considerable awareness about the environment. Stream of study appears to play a critical role in the level of environmental awareness among the B.Ed. trainees with trainees from Science stream exhibiting significantly higher levels of environmental awareness as compared to those from Arts stream. Hence, the third null hypothesis is also rejected. Here we find that the B.Ed. trainees from Arts stream lag far behind their counterparts from the Science stream in almost all the relevant areas of environmental awareness such as knowledge about forests, pollution, wildlife, environmental problems and skills related to environmental education. It is only where knowledge about population and its effect upon the environment is concerned, that B.Ed. trainees from both Arts and Science stream show similar levels of awareness. Graphically, the contents of Table 4 maybe depicted as shown in Figure 3.

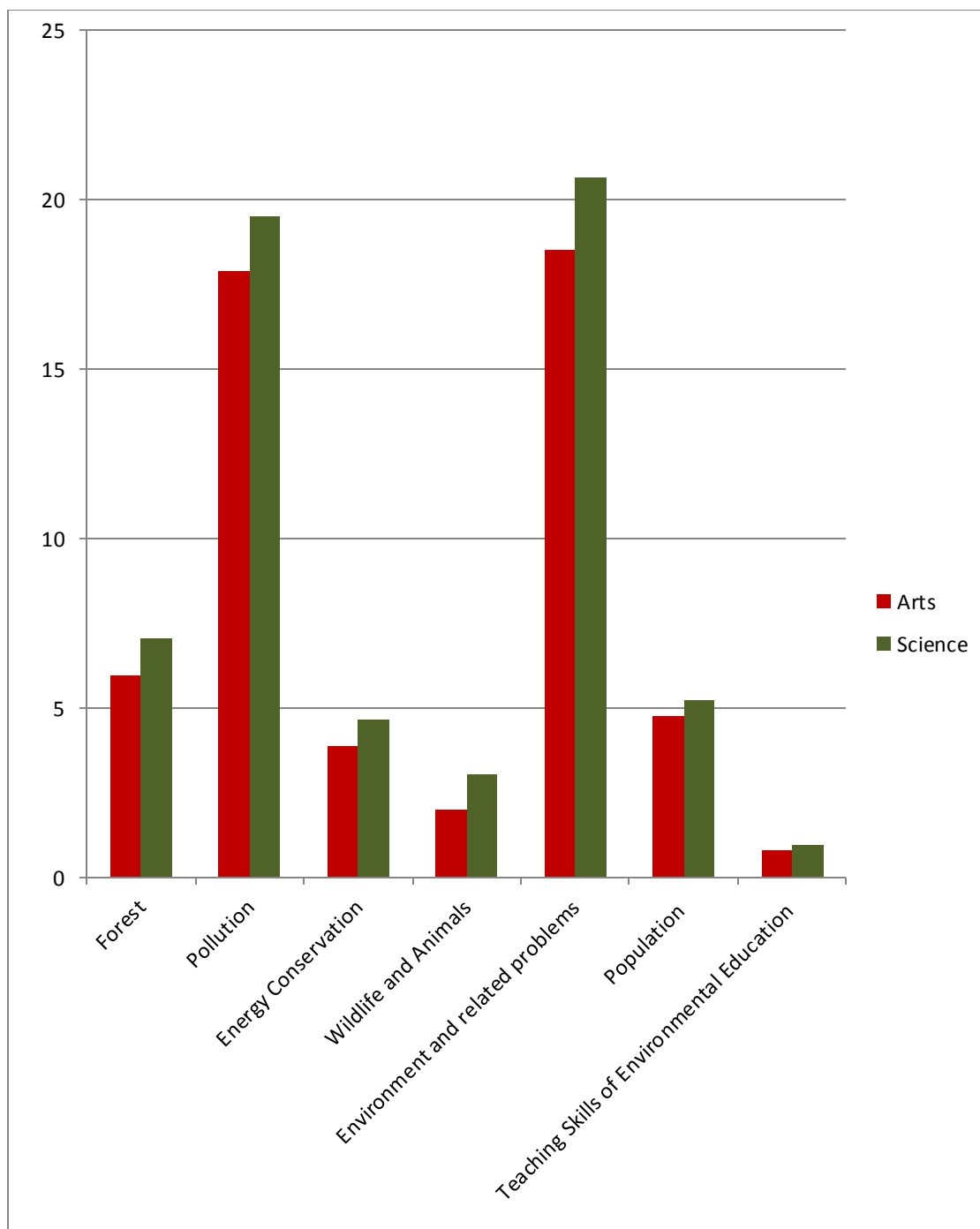


Figure 3: Level of environmental awareness among teacher trainees from Arts and Science streams

Conclusions

The findings of the present investigation reveal that on the whole, the majority of B.Ed. trainees are well aware about most pertinent environmental issues, including knowledge about forests, pollution, wildlife, environmental problems, population and skills related to environmental education. Gender, type of Teacher Education Institutions (TEIs) as well as

stream of study of the B.Ed. trainees seems to significantly influence the level of their environmental awareness. With the younger generation being increasingly exposed to media and environmental education being incorporated into the formal education curriculum, the findings of this study are indeed a positive indicator. While there is a growing consensus across the world for making environmental education mandatory at school and college level, it is important that as teachers we educate our students about the most essential environmental issues irrespective of whether they are an essential part of the curriculum or not. This effort could contribute to the promotion of sustainable ecologies.

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