WASTE MANAGEMENT AWARENESS OF HIGH SCHOOL STUDENTS IN COIMBATORE DISTRICT

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Abstract

The study has been conducted to investigate the Waste Management Awareness of high school students. The study was made on a random sample of 200 high school students in Coimbatore district of Tamil Nadu State. The tool used in the study were the Waste Management Awareness Scale which was constructed and validated by investigator (2019). The study revealed that gender exhibited significant difference but, Locality and type of school management had no significant difference in respect of their waste management awareness of high school students.

Key words: Waste management, e-waste, civic sense and awareness.

Introduction

Waste may be defined as any material or product that no longer serves its intended purpose and has no further marketable value. Any material or product that is disposed at to the environment through the air, water and land, possibly before the end of its useful life, also may be considered waste. Waste is a by-product both of our past and present economic system. One is largely based on exploiting our natural resources without accounting for the environmental costs, particularly the value of the resources consumed and the costs of waste management.

Waste management is the collection, transport, processing, recycling or disposal and monitoring of waste materials. The term usually relates to materials produced by human activity and is generally undertaken to reduce their effect on health. The environment or aesthetics waste management is also carried out to recover the resources from it. Waste management can involve solid, liquid, gaseous or radioactive substances with different methods and field at expertise for each.

Review of related literature

Sindu, Bala, andSukirthi, Goal. (2013) conducted a study on "E-waste management in relation to awareness of college students". The sample consisted of 200 different colleges of Nodia city- professional stream 100 and non-professional stream 100 selected by random sampling technique. The tools used were personal data sheet constructed for the study and waste management awareness test which is a self-developed tool. The tool consists of 50 objective items. The findings of the study reveal that there is no significant difference in the awareness regarding e-waste management in college going students of professional and non-professional students. All the students are unaware of proper e-waste management.

2. **Astalin** (2013) conducted a study on "A comparative study of environmental awareness in senior secondary students of C.B.S.E Board in Kanpur Maha Nagar". A total of 137 students were selected from different boards by using purposive sampling technique for collecting data using the tool. The personal data sheet constructed for study and environmental awareness ability measure constructed by Praveen Kumar were used as tool. The main finding of this study is that CBSE Board students have more environmental awareness.

3. **Muluken and Mesafint** (2013) conducted a study on "Healthcare waste management practices among healthcare workers in healthcare facilities of Gondar town". A cross sectional study was employed. A total of 260 healthcare workers were chosen from healthcare facilities. The sample was selected using simple random sampling technique. A semi-structured questionnaire and observational check list were used to collect data. The result of the study showed that segregation of waste was not practiced in the surveyed healthcare facilities. None of the healthcare facilities had colored coded containers and healthcare waste management documents.

4. **Kumar and Singh** (2013) conducted a study on "The environmental awareness among different groups of graduates". For measuring the environmental awareness, Environmental Awareness Ability Measure constructed by Dr. Praveen Kumar Jha (2010) was used to fulfill the aim of the present study. The sample consisted of 250 graduates selected through purposive technique of sampling from Aligarh city. The results revealed that gender difference and residing status, rural and urban areas significantly affect the environmental awareness ability of graduates.

Burton and Gwen (2011) conducted a study on "Hazardous waste management". The study was conducted on a sample of 500 which comprises a diverse group including firefighters, police officers, geologists, geophysicists and chemists. The program includes an associate of science degree program for college transfer students. The one week courses have proved especially successful, training over 100 students during the summer session and generating enough funds to purchase the equipment which initially had been borrowed. The results reveal that like many parts of the United States, Colorado is facing a significant hazardous waste problem. Front range community colleges has developed a hazardous material technology program to educate workers, supervisors and managers in this field.

2. **Majale and Mireri** (2011) conducted a study on "Co-operation among small Urban centers in the lake Victoria basin as a necessary strategy for managing solid waste". The case of Kisii, Homallay and Migori municipalities. The solid waste management remains a daunting task for small municipalities found in the Lake Victoria basin. The situation is aggravated by low prioritization of solid waste management, with limited revenues at financing waste management and the ever increasing population in these municipalities. This paper presents findings and conclusions to a study that was carried out to assess opportunities for co-operation amongst three small neighboring municipal authorities in the Lake Victoria basin namely Kisii, Homabay and Migori municipalities. This paper concludes that co-operation provides a necessary strategy to addressing solid waste management challenges and that there are indeed various

opportunities within the institutional organization and along the waste chain for co-operation in order or jointly accomplish this.

Statement of the problem

The purpose of the problem was to examine waste management awareness and is entitled as 'Waste Management Awareness of High School Students in Coimbatore District ''.

Objectives of the Study

To construct and validate a tool to measure waste management awareness of high school students.

To compare the mean scores of waste management awareness with respect to the background variables such as gender, locality and type of management.

Null Hypotheses Framed

The following hypotheses are framed for the present study.

1) There is no significant difference in the mean scores of waste management awareness of Male and Female high school students.

2) There is no significant difference in the mean scores of waste management awareness of Rural and Urban high school students. .

3) There is no significant difference in the mean scores of waste management awareness of Government, Government Aided and Private high school students.

Method of the study

Normative survey method is used for this study

Sample

The present study was conducted on a sample of 200 high school studentsfrom various schools of education in Coimbatore district using stratified random sampling technique. The high school students selected differ in their Gender, locality and Community.

Tools used

The tools used for the present study were,

Waste Management Awareness Scale developed and validated by investigator

Statistical techniques used

The following statistical techniques have been used in the present study for the analysis of collected data.

1. Descriptive Analysis
2. Differential Analysis

Comparison of scores of waste management awareness of male and female high school students

Category	N	Mean	S.D	t-Value	p-Value	Level of Significance
Male	92	135.21	26.98	2.05	*0.042*	S

Female	104	142.49	22.93			

S=Significant   **NS=Not Significant**

The calculated t value (t-2.05; $p<0.05$) which is significant at 0.05 level. Therefore the null hypothesis "There exists significant difference between male and female high school students in their waste management awareness " is rejected. i.e. waste management awareness of high school students statistically differ with their gender. The mean values showed that female high school students possess more waste management awareness than male high school students.

Comparison of scores of waste management awareness of rural and urban high school students

Category	N	Mean	S.D	t-Value	p-Value	Level of Significance
Rural	137.36	27.42	55	0.53	0.594	NS
Urban	139.61	24.32	145			

S=Significant   **NS=Not Significant**

The calculated value (t-0.53; $P>0.05$) is not significant at any level. Therefore the null hypothesis "There exists no significant difference between rural and urban high school students in their waste management awareness " is accepted. i.e. There existed no significant difference between rural and urban high school students in their waste management awareness . i.e. waste management awareness ofhigh school students statistically do not differ with their locality.

Comparison of waste management awareness of high school students based on type of management.

Category	Mean	SD	Source	Sum of Squares	df	Mean Square	F	P	Level of Significance
Government	140.88	25.26	Between Groups	592.28	2	296.14	0.47	0.629	NS
Govt. Aided	139.16	25.79	Within Groups	125366.72	197	636.38			
Private	136.84	24.73	Total	125959	199				

S=Significant   **NS=Not Significant**

The calculated value (F-0.47; $p>0.05$) is not significant at any level. Therefore the null hypothesis "There exists no significant difference between Government, Government Aided and Private high school students in their waste management awareness " is accepted .It showed that there existed no significant

difference among high school students belonging to different type of management in their waste management awareness.

Conclusion

To sum up, the following conclusions have been reached in the light of the present investigation. The Gender exhibited significant difference but, Locality and type of school management had no significant difference in respect of their waste management awareness of high school students. In the Waste Management, land is a major problem. The land site, location, maintenance of land, reactions of the nearby people against the location of land, politicization, skyrocketing of land costs etc are the bottlenecks of the waste management. The government must take a careful, foresighted decision with regard to the disposal of waste, which will not be in the vicinity of populated areas but to the outskirts of the city. The process of urbanization is to-day narrowed the differences between urban and outskirt which grows tremendously than the urban areas. The cry of shifting the landfills to somewhere is sought in many areas of Hyderabad. Waste Management is to be taught as a subject from the school level onwards, so that it will provide a way for the maintenance of good environment. The civic sense and awareness of waste generation and disposal, reuse etc will be developed among the people.

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