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PERCEPTION, AWARENESS AND BEHAVIOUR BASED ANALYSIS IN RELATION TO ENVIRONMENTAL ISSUES: A CASE STUDY

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ABSTRACT

In present days, the proper and sustainable use of natural resources by people is a big question of concern. By keeping the different environmental issues in mind, it is very essential to analyse the people's perception, attitude and behaviour towards those issues. Various studies have already been conducted by various researchers in different parts of the world and some differences have been observed among the perception, behaviour and attitude of the people. The aim of this study is to find out the opinion as well as concern of students and university people to existed environmental problems. The focus of this study is to determine the perception, attitude as well as behaviour of students and the employees of university towards existing environmental issues in capital city. A questionnaire based survey has been carried out inside the university i.e. Delhi Technological University (DTU). The study covers a wide range of data collection related to environmental issues on the basis of their class, gender, age as well as their background i.e. rural or urban. On the basis of analysis, it is found that the university students strongly favour the consciousness, responsiveness as well as optimistic behaviour towards environmental issues as a key factor to resolve the environmental issues.

Key Words: *DTU, Environmental Behaviour, Public Perception*

INTRODUCTION

The earth system is an integral component of human enterprise (Ogunjinmi *et al.*, 2012). This ever-changing system provides a multitude of valuable services to humankind, including a liveable climate, provision of clear air and water, and the production of food and fiber (Ogunjinmi *et al.*, 2012). Since the origin of life on this earth, the human beings are continuously taking the benefits from available various resources in the environment. Due to improper and uncontrolled use of available resources, a number of environmental issues like water scarcity, air pollution, noise pollution, global climate change, ozone depletion as well as deforestation has been generated and posing threats to current as well as future generation. To raise environmental awareness among people and enhancing the protective attitude and behaviour towards the current environmental issues, environmental education plays very important role. The purpose behind the environmental education is to raise awareness among people to gain skill, knowledge, attitude as well as positive approach to protect and save the environment. The most effective way of developing the responsibility of individuals towards environment can be thought as education (Cabuk and Karacaolu, 2003). Environmental education has been defined as "a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action" (El-Salam *et al.*, 2009). Since India is a developing country and only the young minds are the future of tomorrow, so it is very essential to analyze the level of perception, awareness and behaviour attributed to various current environmental issues by university students. Such kind of analysis may help to take decision about the education of the students on environmental issues in future. Environmental knowledge and education are closely associated to each other. An understanding of modern environmental issues requires a high level of environmental knowledge, and likelihood of high environmental knowledge is correlated to high level of education (Ogunjinmi *et al.*, 2012).

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El-Salam *et al.*, (2009) measured the level of environmental knowledge among preparatory school students in Alexandria, determining their attitudes towards some environmental concepts and assessing the effect of environmental education on these knowledge and attitudes. The results of the study revealed that 77% of the students had poor level of environmental knowledge and that 23% had fair level. In addition to this, 80% of the students were found to have negative attitude towards the environment and the remainder 20% were indifferent. On the basis of their study, they concluded the need for development and implementation of environmental education programs as a part of the regular school curriculum. Protection of the environment is an issue for all people need to feel responsible. Here more responsibility is necessary for the educational institutions and educators who carry that responsibility, conscious and training of qualified people undertaking the task. Attitudes toward the environment are used interchangeably with environmental concerns which represent human predispositions that influence behaviour in a certain manner (Milfont and Duckitt, 2004). Environmental attitude can be defined as the attitude against the environment that are consistent and demonstrate a positive or negative attitude manifested in the form of learned tendencies (Aydin and Cepni, 2010). Al-Rabaani *et al.*, (2009) examined the relationship between student's attitudes and their willingness to take action to reduce environmental problems like energy problems, water problems, air pollution problems, waste problems and desertification problems. The results showed that students were willing to take action to reduce environmental problems and this was not affected by gender or faculty. Burger *et al.*, (1998) examined the people's attitudes towards environmental problems and found that attitudes and behaviours of the woman towards environmental protection are more developed than men. In another study, Arcury *et al.*, (1987) stated that information and concerns about environmental problems are more developed among men than women. Salensminde (1999) valued environmental problems related to urban traffic by stated choice survey. The use of stated choice has been done to estimate people's willingness to pay to reduce environmental problems caused by road traffic. Muderrisoglu and Altanlar (2011) carried out a study to investigate the difference between environmental attitudes and environmentally responsible behaviour of undergraduate students. As a result of analytical results, the students are found in high support towards the environmental attitudes. The present study is to gauge environmental awareness and motivation levels amongst students of undergraduate as well as postgraduate classes of Delhi Technological University. Budak *et al.* (2005) conducted a study among students and found that students from rural areas have more environmental awareness than the students of urban areas. Tehrani *et al.*, (2010) identified some changes in the environmental attitudes and behaviours of the students due to their education. A baseline environmental attitudes and awareness survey has been conducted in university campus. The objective of this study is to figure out what factors are most important in explaining different levels of awareness concerning environmental problems and to compare the level of awareness as well as the actual behaviour towards environment of people living in urban city. This university educate the undergraduate as well postgraduate students who are expected to be the future leaders in various areas and their future decision on environmental issues will decide the fate of society as well as the environmental sustainability of the country. Due to this, the university play a massive role to educate the young mind. The motive of this study is to determine the perception and awareness of university students as well as employees about the current environmental problems and to analyze the behavioural characteristics of the students about the problems. The conducted study is focused to find the most important factors explaining environmental awareness, to assess the individual level of environmental awareness and to learn about the person's behaviour towards environment. Due to this reason the questions asked have been designed to find out the sources of information on environmental issues e.g. media or education at school. The sample size which have been chosen for this study i.e. 100 students. An attempt has been made to assess how the interviewed students think of environmental pollution. It is an important and interesting issue? Does the interviewed individual feel exposed to some kind of environmental pollution in its everyday life? What environmental issues are considered the most urgent ones? Additionally, the number of the interviewed student's knowledge concerning environmental issues will be judged.

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MATERIALS AND METHODS

Methodology of Study

The reactions of students as well as employee of the university have been taken to analyse their perception, awareness and behaviour towards current environmental issues. The reactions have been collected on the basis of their age, gender, residential background, educational background and their occupation. The considered parameters which have been chosen as baseline for this survey are:

(i) **Perception:** Perception results try to gauge the general opinion of the public as compared to the findings of the concerned authorities like DPCC & MoEF. Marks (5) were awarded for scientifically accurate perceptions in both respects (perception of change over the past 10 years & degree of impact on human health). Scores out of a maximum of 85 were recorded & those above 50 were treated as good perceptibility.

(ii) **Awareness:** The levels of familiarity of students, employees and sources that they consulted while familiarizing themselves with these issues are also checked. Marks (5) were awarded for each source that an interviewee claimed to have consulted to gain environmental knowledge & an equivalent amount of marks for every worldwide phenomenon that a user is aware of. Scores out of a maximum of 95 were recorded and those above 60 were treated as having acceptable awareness levels.

(iii) **Behavioural:** Behaviour results try to gauge the adaptability and willingness to change of the individuals for the betterment of the society and the environment. Marks (10) were awarded for each optimal response & marks (5) were awarded for every response that was favourable but not optimal. Scores out of a maximum of 20 were recorded & those above 10 were regarded as positive responses.

RESULTS AND DISCUSSION

Age Group Based Analysis

The students as well as employees of the university has been categorized into four range of age group i.e. 15-25, 26-40, 41-60 and more than 60. The age has been considered as a parameter to analyze the perception, awareness and behaviour of the different age group people for environmental issues. Numerical analysis has been used to quantify the results. Figure 1 presents the gender based perceptions of students about the different issues of environment. During this, more than 60 years age group people indicate their better perceptibility and awareness towards environmental issues.

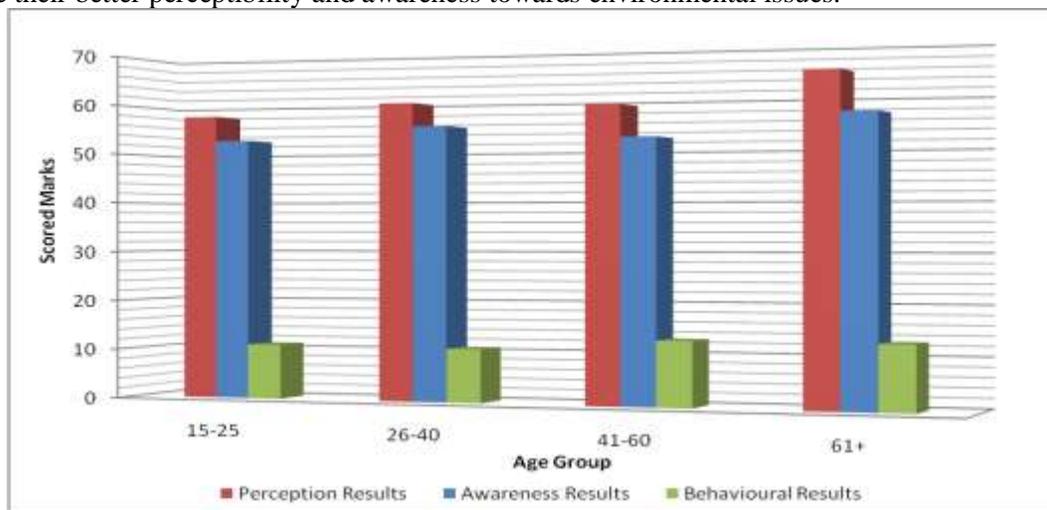


Figure 1: Perception, awareness and behavioural analysis among different age group people

Gender Based Analysis

Gender based analysis comprise of their perception, awareness as well as behaviour towards environmental issues. During the analysis, male respondents are observed with highest marks in all the

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three parameters i.e. perception, awareness as well as behaviour in comparisons to female respondents. From this result, it can be concluded that males are more responsible and aware about existing environmental issues.

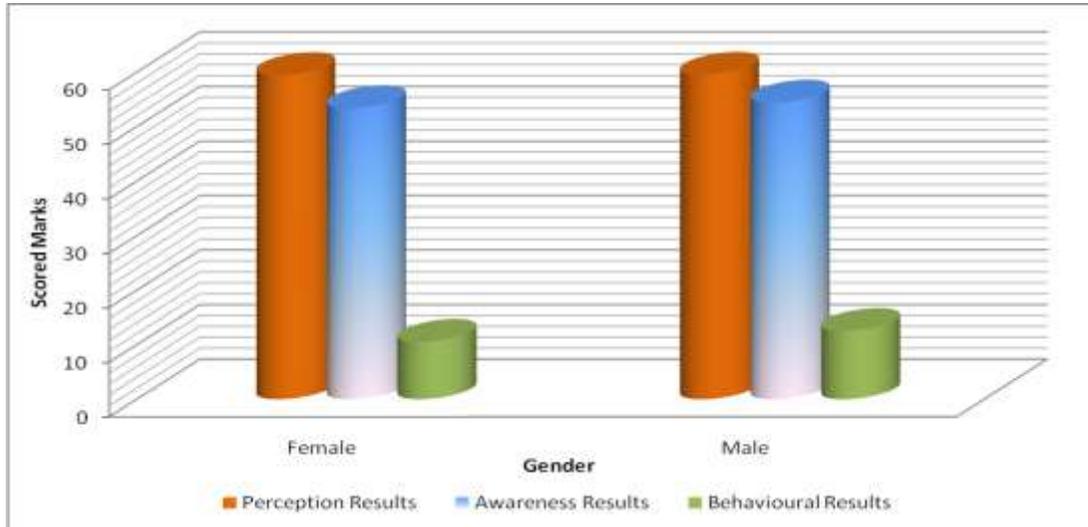


Figure 2: Perception, awareness and behavioural analysis among male and female respondents

Student’s Background Based Analysis

The background of the respondent has also been considered as an important factor during analysis. To gauge the adaptability and willingness to change of the individuals for the betterment of the society and the environment, the behavioural analysis has also been performed. The results on the basis of living background are exposed in Figure 3. In this analysis, the village background people show much more perception as well as behavioural responsibility towards environmental problems in comparison to town and city background people, whereas awareness level is observed equal among all the questioned respondents.

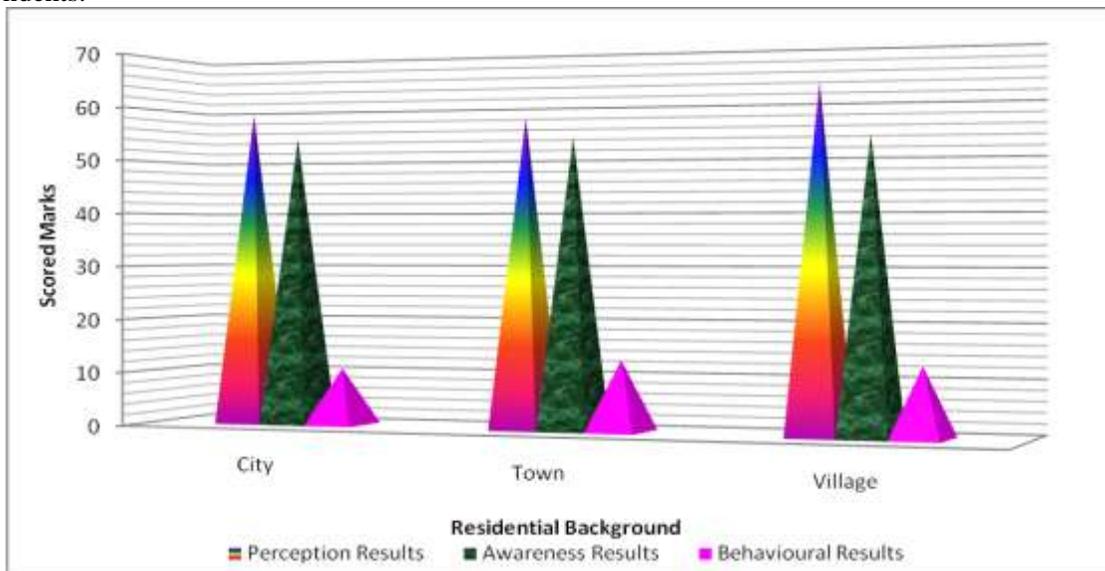


Figure 3: Respondents background based analysis about their perception, awareness and behaviour towards environmental issues

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Education Based Analysis

This parameter has utmost importance in individual's whole life. The respondents have been categorized in four categories on the basis of their qualifications i.e. senior secondary, higher secondary, graduate, post graduate and doctorate. The respondents who have doctorate degree, scored highest marks in two parameters i.e. perception and awareness about different environmental issues whereas in case of behavioural responsibility towards environmental problems, the post graduate respondents scored a little bit higher marks followed by doctorate, higher secondary, senior secondary and undergraduate students (Figure 4).

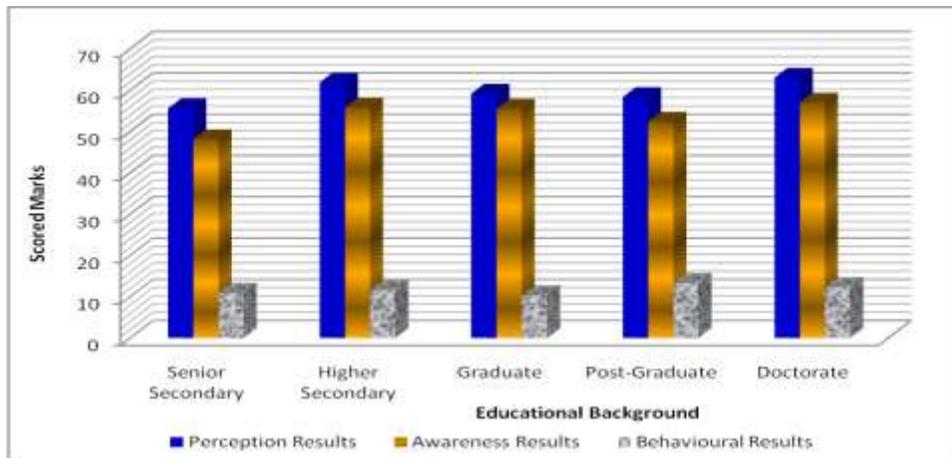


Figure 4: Perception, awareness and behavioural analysis on the basis of their educational qualification

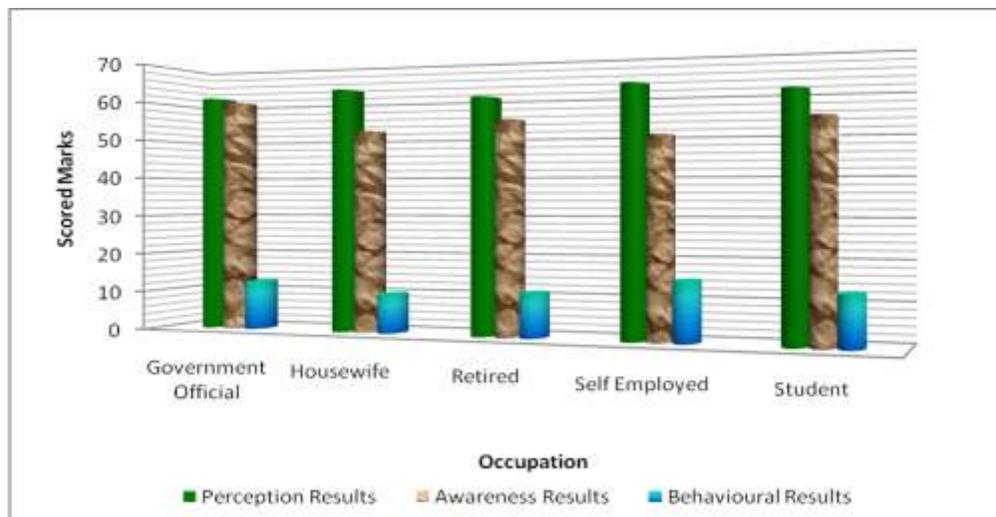


Figure 5: Perception, awareness and behavioural analysis on the basis of their occupation

Occupation Based Analysis

Along with above discussed various parameters, the occupation of the respondents has also been considered during questionnaire survey. The perception of housewife as well as self employed people is found quite well in comparisons to other respondents. Among government officials, the awareness about environmental issues is found higher than other people. Whereas in case of behavioural analysis, the self

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employed people scored highest point. On the other hand the student and government officials scored equal marks followed by retired and house wives (Figure 5).

Conclusion

After discussing the various issues among the students, more than two third of the populace claimed to feel that environmental pollution is an extremely urgent problem. It is striking that people do think of the environmental problems but do not see the connection between environmental destruction and many of India's urgent problems. This is probably one reason for the fact that priorities are generally not set on environment. An education policy for raising the level of environmental awareness should stress addressing the causal relationship between destruction of environment on the one hand and social as well as health problems on the other hand and should point at the fact that especially the poorer, less educated people are exposed to environmental pollution. Making people aware of the relatedness of environmental and social problems could push the issue of environment more towards the top of the agenda. Air pollution has been considered as the most serious problem by most of the students (70%), followed by water pollution and waste problem. These results provide strong evidence for the fact that the efforts in educating people on environment via media and at school have been fruitful. In addition to this, most of the students felt that protection of environment is both a task of the individual as well as of the government, while some thought that it is only the individual's responsibility. Nearly 83% of the interviewed students reported to behave in an environmentally friendly way somehow. It seems that people are motivated to behave in an environmentally friendly way if there is an additional motivation to do so.

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