



A STUDY ON ACHIEVEMENT IN BOTANY AND ENVIRONMENTAL KNOWLEDGE OF HIGHER SECONDARY SCHOOL STUDENTS

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ABSTRACT

This study examined the relationship between achievement in botany and environmental knowledge of higher secondary school students in thiruvallur district. This study adopted normative survey of research. Participant were 300 higher secondary school students randomly selected from various higher secondary schools in Thiruvallur district. The research instrument used for data collection was Environmental Knowledge Questionnaire constructed and standardized by investigator tested at 0.05 and 0.01 level of significance. The findings indicated that there is significant relationship between Achievement in Botany and Environmental Knowledge Of Higher Secondary School Students. There is no significant impact with respect to gender, locality, type of management, parental education, community of higher secondary school students.

Keywords: Environment, Achievement, Sampling, Hypotheses, Knowledge, Normative.

INTRODUCTION:

Today man is living in a world of crises. The social, economic, political and value crises are some of the threats that are quite alarming. Added to this, in the recent decades, the environmental crisis has become another important factor that has made everyone in the world to think of its gravity. Ever since man has been on this earth, there has been a constant interaction between him and the natural world. In the beginning, man lived in harmony with nature, but as his numbers grew and his scientific discoveries and inventions led him on the path of industrialization, he became the predator and his increasing demands on the environment and its resources have led to its exploitation and degradation.

Environmental crises are ultimately human problems. Research studies in the Indian context, which brings out clearly the relationship between Educational Knowledge and Attitude towards Environmental Education are not available and hence the investigator have made a modest attempt to take up the present study.

Man's capacity to adjust his relationship with the natural, the man made (i.e. social and cultural) environment and to transform the environment it has passed through various phases. Man in his effort, to control his environment, in many ways upset the world in which he lives. Man is dependent upon vast amounts of pure air, water and food for his life. His food supply depends upon the plants and animals. To maintain the necessities or to increase the amount of the necessities to keep up with an ever growing population, he has developed many so called improvement including, tremendous machines to reshape the landscape, detergents to eliminate dirt from his clothing and chemicals to destroy insect life and plant life that has found obnoxious to his way of living. In the process to develop these improvements he has inadvertently polluted

the environment that he had hoped to control.

Man acting in his supremacy for thousands of years, has now been awakened to the fact that he has, but a short time in which, to bring about a re-birth of his ecology. The world, that he thought to be abounded with unlimited natural resources, has now been revealed as a fragile. "A crisis has arrived and man now faces the responsibility of undoing much of what he has done in the past, so that future generations may live in environment that enhances their very existence and does not threaten and continue to destroy the basic necessities of life".

The term environmental education means the educational process dealing with man's relationship with his natural and man-made surroundings. The aim of environmental education is that, individual and social group should acquire knowledge and knowledge, develop skill and abilities and participate in solving real life environmental problems.

ENVIRONMENTAL KNOWELDGE

Besides natural and man-made hazards, the earth's surface is polluted by a number of sources. The land is polluted by millions of tones of solid wastes from mines and urban centers while industries and cities discharge enormous quantity of liquid wastes outside their locations. In the same way, burning of fossil fuels and wastes pollutes air. As a consequence of all these disasters and pollutions, the environment is over burdened. The level of burden varies between countries and from time to time.

ACHIVEMENT IN BOTANY:

It refers to those who are undergoing XI and XII in higher secondary school in Tamil Nadu.

STATEMENT OF THE PROBLEM

The above discussion has made the present investigator to

choose the problem at hand and it is stated as follows: "A Study On Achievement In Botany And Environmental Knowledge Of Higher Secondary School Students" in Thiruvallur district.

OBJECTIVES OF THE STUDY:

The present study has the following objectives:

1. To find out the Achievement of Higher secondary school students in Botany.
2. To find out the Environmental knowledge of higher secondary school students.
3. To find out whether there is any significant difference between male and female school students with respect to their achievement in Botany.
4. To find out whether there is any significant difference between government and private school students with respect to their Achievement in Botany.
5. To find out whether there is any significant difference between rural and urban area school students with respect to their Achievement in Botany.
6. To find out whether there is any significant difference among the sub samples of community with respect to their Achievement in Botany.
7. To find out whether there is any significant difference among the sub samples of parental education with respect to their Achievement in Botany.
8. To find out whether there is any significant difference among the sub samples of religion with respect to their Achievement in Botany.
9. To find out whether there is any significant difference between male and female school students with respect to their environmental knowledge.
10. To find out whether there is any significant difference between government and private school students with respect to their Environmental knowledge.
11. To find out whether there is any significant difference between rural and urban area school students with respect to their Environmental knowledge.
12. To find out whether there is any significant difference among the sub samples of community with respect to their Environmental knowledge.
13. To find out whether there is any significant difference among the sub samples of parental education with respect to their Environmental knowledge.
14. To find out whether there is any significant

difference among the sub samples of religion with respect to their Environmental knowledge.

15. To find out whether there is any significant relationship between Achievement and Environmental knowledge of higher secondary school students

HYPOTHESES OF THE STUDY:

1. There is significant difference between male and female students in respect of their achievement in Botany Subject.
2. There is significant difference between rural and urban area students in respect of their Achievement.
3. There is significant difference between government and private school students in respect of their Achievement in Botany Subject.
4. There is significant difference among the sub samples of parental education with respect to their Achievement.
5. There is significant difference among the sub samples of religion with respect to their Achievement.
6. There is significant difference between male and female school students in respect of their environmental knowledge.
7. There is significant difference between rural and urban area students in respect of their Environmental knowledge.
8. There is significant difference between government and private school students in respect of their Environmental knowledge.
9. There is significant difference among the sub samples of parental education with respect to their Environmental knowledge.
10. There is significant difference among the sub samples of religion with respect to their Environmental knowledge.
11. There is significant relationship between Environmental knowledge scores of higher secondary school students and their achievement in Botany Subject.

RESEARCH DESIGN

Methodology:

The study was conducted through normative survey method of research and its most suitable for the present study.

VARIABLES:

Independent Variable : **Environmental knowledge**

Dependent Variable : **Achievement in botany.**

SAMPLE:

Simple random sampling technique was adopted for the selection of sample 300 higher secondary students was taken for the study.

RESEARCH TOOL:

To verify the hypotheses formulated in the study. The following tools have been used.

1. Achievement test - half-yearly examination scores
2. Environmental knowledge Questionnaire constructed and standardized by the investigator.

STATISTICAL TECHNIQUES:

For the analysis of the data, the following statistical techniques have been used.

- a. Descriptive analysis (Mean & S.D)
- b. Differential analysis ('t' test & 'F' test) and
- c. Correlation analysis ('r' Coefficient of correlation)

MAJOR FINDINGS:

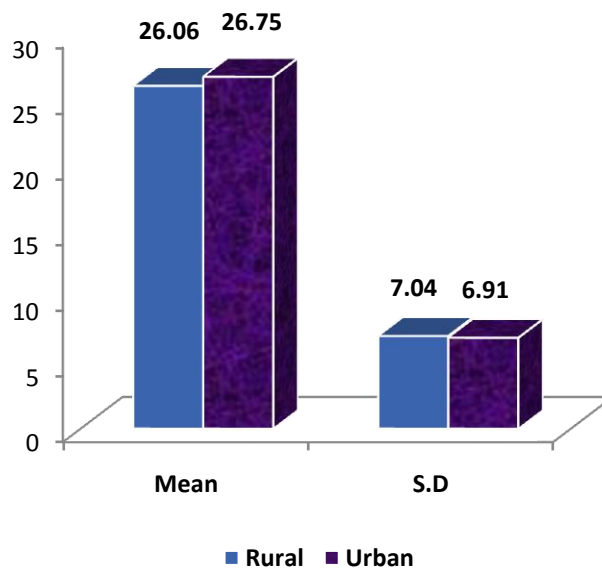
The hypotheses formulated at the beginning of the study have been examined in the light of the data gathered. The following are the main findings of the present investigation.

1. The Achievement of Higher secondary students is average.
2. The Environmental knowledge of higher secondary school students is high.
3. There is no significant difference between male and female students in respect of their achievement.
4. There is significant difference between government and private school students in respect of their Achievement.
5. There is significant difference between rural and urban area students in respect of their Achievement.
6. There is no significant difference among Christian, Muslim and Hindu students in respect of their Achievement.
7. There is no significant difference among the sub samples of parental education with respect to their Achievement.
8. There is no significant difference among the sub samples of religion with respect to their Achievement.
9. There is no significant difference between male

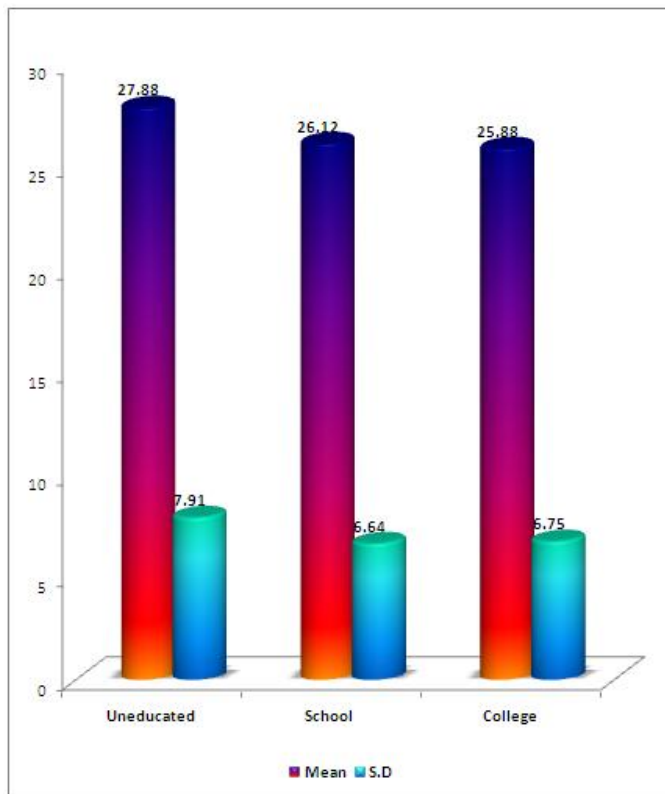
and female students in respect of their environmental knowledge.

10. There is no significant difference between government and private school students in respect of their Environmental knowledge.
11. There is significant difference between rural and urban area students in respect of their Environmental knowledge.
12. There is no significant difference among Christian, Muslim and Hindu students in respect of their Environmental knowledge.
13. There is no significant difference among the sub samples of parental education with respect to their Environmental knowledge.
14. There is no significant difference among the sub samples of religion with respect to their Environmental knowledge.
15. There is significant relationship between Achievement in Botany and Environmental knowledge scores of higher secondary students.

SHOWING THE SIGNIFICANT DIFFERENCE BETWEEN RURAL AND URBAN AREA STUDENTS IN THEIR ENVIRO NMENTAL KNOWLEDGE SCORES



SHOWING THE SIGNIFICANT OF THE DIFFERENCE AMONG THE SUB-SAMPLES OF PARENTAL EDUCATION WITH RESPECT TO THEIR ENVIRONMENTAL KNOWLEDGE



RECOMMENDATIONS:

The present study gives a clear-cut view about the higher secondary students' achievement in botany and environmental knowledge. Based on the important findings stated earlier the following recommendations have been made

1. Achievement of higher secondary school students in Botany subject is average but their environmental knowledge is high. So the parents and teachers of the higher secondary schools of Thiruvallur District should give much importance to their achievement.
2. The study also found that the correlation between achievement and environmental knowledge of the higher secondary school students is high and significant at 0.01 level. It reveals that there is a significant relationship was found out between achievement score and their knowledge score. So the relation should be study carefully and must be given equal importance to both achievement in Botany and environmental knowledge.
3. The study also reveals that the sub samples selected by the investigator do not exhibit any

significant difference in their achievement score and their environmental knowledge.

CONCLUSION:

The present study indicates that the higher secondary school students are having average level of achievement in Botany and high environmental knowledge. There is significant correlation between these variables. It reveals that the present day teaching and exposure of the students towards environmental concepts is good

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