

A STUDY TO ASSESS THE ACHIEVEMENT MOTIVATION OF HIGHER SECONDARY STUDENTS IN RELATION TO THEIR NOISE SENSITIVITY

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ABSTRACT

Disturbing sounds are often referred to as noise, and if extreme enough in degree, intensity or frequency, it is referred to as noise pollution. Achievement refers to a change in study behavior in relation to their noise sensitivity and learning in the educational sense by achieving results in changed responses to certain types of stimuli like noise sensitivity. It is the more specialized skills which are taught in school which depends greatly both on the effectiveness of instruction and practised on the students interest. This study is an attempt to explore the relationship between achievement motivation and noise sensitivity of higher secondary students. Data were collected from 200 Higher Secondary students which was selected through stratified random sampling from four schools in Kanyakumari District through questionnaire. Data were collected through survey method and were analyzed with the help of descriptive, correlational and regression analysis. Findings revealed that the achievement motivation of Higher Secondary students are highly related to their noise sensitivity and student with a positive attitude to the noise sensitivity tend to develop a high achievement motivation.

Keywords : Achievement Motivation, Higher Secondary Students, Relation, Noise sensitivity.

INTRODUCTION

'A Study of Environment in education' conducted by Joshi (2007) stated that environment outside the class is potent enough to initiate hearing and hence the environmental education should unfortunately teach and the syllabus is responsible for limiting the growth in approach.

Man is an integral ingredient of the Physical and Biological world in which he lives. In a broader sense, we may definite the Physical and Biological word as the environment which consists of living and non-living components. All the physical and biological aspects of human survival involve some kind of interaction with the environment. Such an interaction is not only essential but also unavoidable for satisfaction of human needs, which is the basis for existence.

Recently, noise pollution has been of increasing concern worldwide, particularly in most urban centers. The noise problems of the modern industrial societies seem incomparable to the past. According to the World Health Organization (WHO), traffic noise is one of the main sources of environmental noise exposure in urban communities. Like home and work place, school is also

an important micro environment as well. School is important for the cognitive, creative, and social development of children. Schools are therefore expected to ensure the best possible conditions for a child's physical and intellectual development, including control of excess environmental noise. Noise levels are measured in decibels (dB). One decibel is the threshold of hearing. Approximately, 60dB is the level of normal talking. According to WHO, the permissible noise level in school environments should not exceed 35dB. Exposure for more than six hours a day to sound in excess of 85 dB is potentially hazardous to health. In less developed countries like Nigeria, many children do not have access to ideal or serene learning environments. Noise control in the school environment is a real public health challenge. Measurements in A-weighted dB (dBA) assess loudness and compensate for the human ear's lower sensitivity to low frequency and very high frequency sounds.

In recent years Psychologists have become more concerned about the environment and it's the way that affects the human behavior. Psychology focuses on the relationship between the physical environment, and

human behavior is well being. On the other hand Social ecology may be viewed as the multi-disciplinary study of the impact of the physical and social environment on human beings. It is concerned with the assessment and development of optimum "Human milieu"

Achievement Motivation

Environmental psychology deals with the scientific study of the effects and environment on behavior. It is a study of the inter relationship between behavior and built-in natural environment. Achievement is the act of achieving or performing, obtaining by exertion, accomplishment as the achievement of its object [4]

Noise Sensitivity

Auditory environment is vital for human functioning at both cognitive and emotional levels. In nonverbal noise physical components dominate, while in verbal noise Semantic components dominate. On the other hand, auditory stimulation can become a highly destructive source of negative experiences. Auditory stimulation may include physical and semantic components that cause frustration, irritation and inefficiency. Due to noise abatement policies, the number of study places with high noise levels is expected to decrease in most countries. Noise levels at 90dB and above are of limited practical interest in performance studies as these levels should be avoided in the working milieu for reasons of hearing protection. Zimmer et al (1999) sought to strengthen a correlation between the student's inherent level of noise sensitivity and the annoyance evaluations made by them. Researcher suggested that the students have shown a negative or positive response to noises, and their reaction is based on whether or not they are sensitive to noise.

Need for the Study

Psychologists have a vital role in the successful operation and ultimate outcome of student's achievement through motivation. The views of motivation and development of the achievement has undergone a change and improving the quality of students, in the modern era, the development is more oriented towards technology. There has been a lot of debates on the value crisis in our

society and ways and means to provide value education. There have been various and sometimes conflicting views on how to provide value education at different levels of the educational ladder. Some argue that value education can best be imparted through specially designed educational programmes both for children and adults.

With respect to general achievement, it is assumed that less able subjects would be more susceptible to harmful effects of noise, because they are probably more able on subjects. Children in noise impacted areas have been shown to display impaired mental performance including incidental learning and visual research, reading achievement and problem solving.

Objectives

The main objective of this study is to explore the relationship between achievement motivation and the noise sensitivity of higher secondary students.

•Hypothesis

- Achievement motivation of higher secondary students is significantly related with their noise sensitivity.
- The noise sensitivity of higher secondary students has significant impact on their achievement motivation

Methodology

Population and settings

The population of the study comprises of higher secondary schools, conducted at L.M.S. Girls Higher Secondary School, Neyyoor, CSI Matriculation Higher Secondary School, Nagercoil, Hacker Government higher Secondary school, Neyyoor, SLB Government Higher Secondary School, Nagercoil.

Sample Size

200 Samples are the met inclusion criteria that were selected for the study.

Sampling technique

The investigator selects subjects by using Purposive Sampling Technique [6].

Tools used for the study

In order to test the spelt out hypotheses, data were collected through 'Survey Method' in the present study.

'Weinsten's Noise Sensitivity Scale' [2] and the 'Achievement Motivation Scale' by Shah Beena (1988) are used in this study along with the personal data sheet [10].

Data Collection Procedure

The investigator visited all the four schools personally and established rapport with the students. The students were explained about the nature of study and were asked to read the instructions on the cover sheet before answering the questionnaire. Students were asked to answer the questionnaire honestly without any discussion with their peers and assured that there was no right or wrong answer. The confidentiality was assured to the students. The questionnaires were scored as per the scoring key.

Major Findings

- The students do not differ in their Noise Sensitivity on the basis of the Demographic Variables.
- The Achievement Motivation of higher secondary students is significantly related to their Noise Sensitivity.
- The Noise Sensitivity of higher secondary students has significant influence upon their achievement motivation.
- Students from Government and Private Schools do not differ in their Achievement Motivation. However the students from private schools have displayed significantly, higher social achievement than their counterpart.
- Students from Arts and Science discipline, significantly differ in their Achievement Motivation. Students from Arts discipline have displayed higher achievement motivation than the Science students.
- The Science students from Rural and Urban areas do not differ in their Achievement Motivation. The students from Arts discipline have displayed higher achievement motivation than the Science students.
- The Science students from Rural and Urban areas do

Constructs of Achievement Motivation	Noise Sensitivity
Academic Success	0.420*
Vocational achievement	0.520*
Social achievement	0.533*
Skill achievement	0.521*
Achievement Motivation Total	0.404*

N= 200

*Significant at 0.05 level

Table 1. Correlational Analysis on Achievement Motivation of Higher Secondary Students in Relation to their Noise Sensitivity

not differ in their Achievement Motivation. The students from urban area have higher skill achievement.

- The students differ in their Achievement Motivation on the basis of their Parents Education.
- The students differ in their Achievement Motivation based on their Parent's Income.

To find out the relationship between achievement motivation and noise sensitivity of higher secondary students, a Co-relational Analysis was attempted [9]. From Table 1 it is noticed that all the dimension of achievement motivation are positively associated with noise sensitivity. Hence the hypothesis is accepted. It is concluded that the achievement motivation of higher secondary students are highly related to their noise sensitivity.

Motivation refers to the driving force behind all the actions of every individuals. The influence of an individual needs and desires holds a strong impact on the direction of their behavior and it is based on the emotions on achievement related goals. Hence achievement motivation is vital for success or attainment of excellence. Individuals will satisfy their needs through different means and are driven to succeed for varying reasons.

Achievement behavior is an interaction between situational variables and individual motivation. Noise sensitivity is the internal state of any individual which increase their degree of sensitivity to noise. The students who are sensitive to noise may not be able to adapt in the new environment and those who are insensitive and in a bad mood, might perceive noise more negatively. Hence the positive association between achievement motivation and noise sensitivity is quite understandable.

It is noticed from Table 2 that, the noise sensitivity

Independent Variable / Dependent Variable	R	R ²	't' Value
Academic Success	0.975	0.951	8.39*
Vocational achievement	0.996	0.992	5.28*
Social achievement	0.994	0.9988	2.57*
Skill achievement	0.997	0.994	1.97*
Achievement Motivation Total	0.990	0.981	1.98*

N= 200

*Significant at 0.05 level

Table 2. Regression Analysis on Achievement Motivation of Higher Secondary Students in Relation to their Noise Sensitivity

predicted achievement motivation. To find out the results multiple regression analysis was attempted, because of four dimensions in dependent variables [8]. The study supported by Belojevic et al (2003) indicated that the effect of noise highly affects the student's motivation.[1] Students with a positive attitude to noise sensitivity are tending to develop a high achievement motivation.

In academic success ($R = 0.095$, $R^2 = 0.951$, t' value = 8.39) is significant at 0.05 level. In vocational achievement ($R = 0.996$, $R^2 = 0.992$, t' value = 5.28) also is significant at 0.05 level. In social achievement ($R = 0.994$, $R^2 = 0.998$ and t' value = 2.57) was found at 0.05 level of significance. Also, in skill achievement ($R = 0.997$, $R^2 = 0.994$ and t' value = 1.97) is significant at 0.05 level.

The total achievement motivation of Higher Secondary students was found to be significant at 0.05 level. ($R = 0.990$, $R^2 = 0.981$ and t' value = 1.98). Because the total obtained value is 0.420 and t' test value is 1.98. So the hypothesis is accepted.

Academic success is based on one's skills for striving to promote a better achievement. The student with high academic success felt a need to master difficult challenges, provide an opportunity to learn and develop competence. Hence the influence of academic success on noise sensitivity is quite reasonable.

The skill achievement has a positive impact on the noise sensitivity. It has been accepted that environment, both inside and outside the school, in which the students grow has a great influence on their skill achievement. The total achievement motivation of higher secondary students are significantly influenced by academic, vocational,

social and skill achievement. It is concluded the noise sensitivity of higher secondary students has significant impact on their achievement motivation.

The t' values are calculated to find out the differences between the means of two groups. From table 3 the following results were obtained.

Students do not differ in their achievement motivation on the basis of Gender. The obtained value in male students (mean = 36.44, SD = 11.05), the female students (mean = 39.32, SD = 10.35) and the t' value is 0.44.

Students from Government and private schools do not differ in their achievement motivation. The obtained value of Government students (mean = 33.52, SD = 10.49), Private Students (mean = 40.34, SD = 11.07) are not significant because the t' value is 1.08.

Students from Arts and Science Discipline significantly differ in their achievement motivation. The calculated value of Science students (mean = 35.20, SD = 3.19), Arts students (mean = 36.83, SD = 11.17) and t' value is 2.18 are found to be significant at 0.05 level.

Students from Rural and Urban areas do not differ in their achievement motivation. The obtained value of Rural students (mean = 37.09, SD = 9.92), Urban Students (mean = 38.76, SD = 11.46) were found to be significant because the t' value is 0.67.

Students differ in their achievement motivation on the basis of Parents Education. Because the calculated value of illiterate parents (mean = 42.04, SD = 4.41), literate parents (mean = 37.73, SD = 4.05) and t' value is 2.27 are found to be significant at 0.05 level.

Students differ in their achievement motivation on the basis of Parents Income. Because the calculated value of upto Rs.5,000/- per month (mean = 33.36, SD = 10.36), above Rs.5,000/- per month (mean = 42.20, SD = 9.55) and t' value is 3.60 are found to be significant at 0.05 level.

The students who are in bad mood respond more negatively to noise than those who are not. The student show different responses such as negative and positive response to particular noise and their reaction is based on whether or not they are sensitive to noise. From Table 3 it is

S. No	Demographic Variables	N	Mean	S.D.	t' Value
1.	Gender Male	98	57.45	5.29	0.20 ^{NS}
	Female	102	59.75	4.63	
2.	Type of School Government	99	60.53	6.44	0.25 ^{NS}
	Private	101	57.10	7.01	
3.	Stream of Study Science	95	59.14	8.03	0.08 ^{NS}
	Arts	105	57.97	6.00	
4.	Place of Residence Rural	104	58.53	7.24	0.19 ^{NS}
	Urban	96	55.87	7.39	
5.	Parents Education Illiterate	26	94.52	21.38	0.18 ^{NS}
	Literate	174	18.91	15.12	
6.	Income Upto Rs.5,000/-	62	33.92	19.08	0.39 ^{NS}
	Above Rs.5,000/-	138	84.42	31.88	

Table 3. Noise Sensitivity of Higher Secondary Students in Relation to their Demographic Variables

observed that all the variables are not significantly related to the students noise sensitivity. So the hypothesis is not accepted and it is concluded that the Higher Secondary School students do not differ in the noise sensitivity on the basis of demographic variables.

Discussion

The findings of the study have provided many issues about the level of achievement motivation of higher secondary students and the necessity to improve their motivation in relation to their noise sensitivity. The students from government schools have less motivation than the private schools. It gives rise to an idea that the government school should plan the activities to enhance motivation and sensitivity of their students.

It is also found that there is no difference between male and female students in their achievement motivation. Similar study was conducted by Ekhamer and Dornic (1990) where there is no difference among male and female students because they have been influenced by means of noise, mood motivation and other variables. The students from government and private schools differ in their social achievement and not in their academic, vocational and skill achievement. These findings can give an idea that the achievement motivation of higher secondary students is based on their academic and skill achievement and not based on their vocational and social achievement.

Urban higher secondary students have high skill achievement on their achievement motivation when compared to the rural higher secondary students. The study supported by Levy Leboyer (2003) shows that the students tend to clearly differ in their critical tendencies which are related to urban individual characteristics [7]. Parent's level of education has influenced the achievement motivation of higher secondary students except the skills achievement. The study supported by Racher Stecher (2004) concluded that depressed effect may occur with learning helplessness under general circumstances and induced motivation deficits.

The results depict the study that the parents' income influences the achievement motivation supported by

Gollowitzer [3]. Thirty students studied for the pure joy of learning to master the material due to the high income of family and another thirty students' performance put their goals between a rock and hard place; paralyzed with fear of failure they faced the tasks with anxiety and helpless achievement outcomes. But students from the first group got low marks on the test and second group students got a high marks. The cultural competent is exerting more power than any other types of motivation. The author touches on the points and discusses a variety of motives that are possible but also predicted behavior by understanding that motivation requires numerous contradictory motivation.

Suggestions

- The study may be repeated with college students.
- Comparative study may be conducted among college and school students.
- Cross cultural study may be conducted among students from different part of our country.
- Motivational training programmes may be organized for both students and teachers.
- Further study may be conducted by considering various psychological as well as environmental variables.

Conclusion

A sample of 200 students was selected through Purposive Sampling Technique. Data were collected from two sets of government schools and two set of private schools through Survey Method to assess the achievement motivation of Higher Secondary students in relation to the noise sensitivity in Kanyakumari District. The collected data were analyzed and the findings showed that the achievement motivations of Higher Secondary students are highly related to their noise sensitivity and student with a positive attitude to the noise sensitivity tend to develop a high achievement motivation. Also, the Students from Government and private schools do not differ in their achievement motivation. However the students from private school had displayed significantly higher social achievement than their counter part. The students from urban area have higher skill achievement than rural area students.

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