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Copyright Policy

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EDITORIAL

''A research problem is not solved by apparatus; it is solved in a man's head'.

- Charles F. Kettering

The purpose of education is to empower an individual to succeed in the future. Success depends upon how far students experiment on their own and realise that the method of learning is connected to reality. It is the duty of the teachers to support the real facts of life by connecting classroom lectures with real-life experiences. Teacher educators can train the student teachers since they are the future teachers of the young students by planting the seeds of knowledge of the future through pragmatic research.

Today, there is a mixed scenario of research in education. Research in education is repetitive, devoid of freshness in the case of research problem, approach and in methodology. Philosophical & historical studies are very rare. There is more of descriptive and quantitative research than qualitative research. There is more of borrowed methodology than indigenous. There is lack of continuity, cumulativeness and synthesis in most of the studies. Culture for incubation of ideas is grossly lacking. Research methodology must be compatible with the local problems. Today, Compatible indigenous research methodology has to be evolved in social sciences researches. The pursuit of knowledge should be conducted with sincerity and care in the research. Here are a few researchers who have contributed their knowledge on the diverse issues to the research community. **A.S. Arul Lawrence and C. Barathi** in their Research, "Attitude of Higher Secondary Students towards Home Environment in Cuddalore District", found that parents should create congenial environment at home, which will help the children to be emotionally balanced and stable. **Dr. M. Leonard Ashok** in his Research on "Leadership Behaviour among B.Ed Trainees reveals that the leadership behaviour of the B.Ed trainees is moderate. **Dr. T. Malliga and N. Sridhar** is their research, "A Study on Noise attitude of XI standard school students, stress the central state government and other social agencies to take been interest to develop the awareness of risk of loud noise and the need for educational programs to in still the importance of noise free environment. **Dr. S. Prabu Shankar** in his

paper on Perspectives of Structural Equation Modelling (SEM) has focused on the scope, precincts and Inter-disciplinary applications of **SEM.V.Arockia Amuthan** emphasises on the Economic impact of Educational Polices among Marginalised groups in India.

Dr. A. Alma Juliet Pamela

Associate Editor.

Research Article

Attitude of Higher Secondary Students towards Home Environment In Cuddalore District

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ABSTRACT

The present study aims to probe the attitude of higher secondary students towards home environment in Cuddalore district. In this normative survey method was employed. The present study was conducted with the sample of 290 higher secondary schools students in Cuddalore district of Tamil Nadu by selecting simple random sampling technique. Home Environment Inventory (HEI) by Karuna Shankar Misra (1998) was used to collect the data. The findings showed that (i) there is a significant difference between higher secondary boys and girls in their attitude towards home environment, (ii) there is no significant difference between government and private higher secondary school students with respect to home environment, (iii) there is no significant difference in the attitude of higher secondary students towards home environment in terms of community, and (iv) there is a significant difference in the attitude of higher secondary students towards home environment in terms of religion.

Keywords: Home environment, Attitude of students, higher secondary education, Cuddalore District, Parental involvement

INTRODUCTION

Home is said to be the first school of the child. Home environment is one of the most potential factors influencing a child's achievement. This aspect of academic achievement has been studied by Jain (1965). There is considerable evidence to prove that parental attitudes and the nature of home-environment are important determinants of a child's success in reading

(Subramaniyam, 1979). Psychologically, the individual inherits certain potentialities, the extent of whose development will be dependent in part on the environment during the pe1;od of growth. This implies that function and behaviour are both inherited and acquired. Emotional influences thus have as their basis, certain distinct factors, which cannot be fundamentally changed because they are inherited, and others which evolve out of the home environment.

Significance of the Study

No child can grow in vacuum. He needs all types of elements and support in his environment to help him to grow, to develop, to become complete and to possess integrity. The complex structure and functioning of the society has proved to be too taxing for the individual's adjusting capacities to meet the demands of the environment. The home environment includes the facilities at home, education of parents, occupation of parents, parents' income, parents and siblings' attitude, etc. Healthy home environment is the prerequisite for developing good academic performance. Parents establish a safety net of concerned adults that can support children's academic and socio emotional development and assist children if adjustment problems arise.

Every student from the beginning of the first grade until he finishes college education makes a long series of adjustment between whole unique personality and the environment. The best integrated and adjusted individuals would have established some reasonable goal in line with their interests, abilities and settled down work towards these goals seriously and steadily, without unusual tensions. The stage of adolescence is a transitional period. Sometimes the conflicting demands of the parents leave the adolescent confused and maladjusted to his self and the society. Hence, the investigators have decided to select the topic given below.

Title of the Study

Attitude of Higher Secondary Students towards Home Environment in Cuddalore District

Operational Definition of the Key Terms

Attitude is more or less permanent enduring state of readiness of mental organization which predisposes an individual to react in a characteristic way to any subject or situation with which it is related.

Attitude is a set of complex feedings, desires, fears, convictions, prejudices or other emotional tendencies that give an individual readiness to act because of his varied experiences.

Objective

- To find out whether there is any significant difference in the attitude of higher secondary students in terms of (i) gender, (ii) type of school, (iii) community, and (iv) religion.

Hypotheses

- There is no significant difference between higher secondary boys and girls in their attitude towards home environment.
- There is no significant difference between government and private higher secondary school students with respect to home environment.
- There is no significant difference in the attitude of higher secondary students towards home environment in terms of community.
- There is no significant difference in the attitude of higher secondary students towards home environment in terms of religion.

Methods and Procedures

In this present study, the normative survey method was employed. The present study was conducted in the higher secondary schools in Cuddalore district of Tamilnadu. So, a sample of 290 higher secondary school students of Cuddalore district was selected by using random sampling technique. Home Environment Inventory (HEI) by Karuna Shankar Misra (1998) was used to collect the data. The reliability of the tools has been found out by the researchers by using the split-half method. It was 0.92 for HEI. After giving proper instruction to the students, the research tools namely, attitude towards religion and home environment were supplied to the students. The survey was administered by using group test method. If the students arise any doubts regarding the statement, the researcher clarified immediately. The maximum time to complete the tools is 1 hour. The completed tools were collected from the students after the stipulated time period. Later, the collected test items were subjected to scoring based on the manual. The scored master table was analysed by the SPSS package. To analyse the data percentile analysis, mean and standard deviation, 't' test and 'F' test and Pearson's product moment correlation were used as the statistical techniques.

Data Analysis

Table-1: The Mean Scores and Standard Deviation of Higher Secondary Students' on Home Environment

S.No.	Demographic Variable	Sub-sample	N	Mean	S.D
1	Entire Sample		290	227.14	42.42
2	Gender	Boys	146	211.94	34.75
		Girls	144	242.56	44.02
3	Type of School	Government	131	226.47	42.82
		Private	159	227.69	42.22
4	Community	OC	15	226.47	26.85
		BC	124	232.99	43.22
		MBC	92	224.87	43.91
		SC/ST	59	218.56	40.71
5	Religion	Hindu	176	231.80	39.97
		Muslim	57	215.37	39.37
		Christian	57	224.53	43.65

1. **Entire Sample:** The computed mean scores and standard deviation of higher secondary students on home environment scale were 227.14 and 42.42 respectively. The obtained mean value indicates that the higher secondary students have moderate home environment and the standard deviation value indicates the scores of the sample was around the mean value.

2. **Gender:** The mean scores of higher secondary boys and girls were 211.94 and 242.56 respectively. It indicates that both boys and girls have moderate home environment.

3. **Type of School:** The mean scores of government and private school students were 226.47 and 227.69 respectively. It indicates that both government and private school students have moderate home environment.

4. **Community:** The mean scores of students belonging to other community, backward community, most backward community and scheduled caste/scheduled tribe were

226.47, 232.99, 224.87 and 218.56 respectively. It indicates that irrespective of the students' community, all of them have moderate home environment.

5. **Religion:** The mean scores of students belonging to Hindu; Muslim and Christian religious were 231.80, 215.37, and 224.53 respectively. The obtained mean scores of different religion indicate that the students belonging to different religion have moderate home environment.

H_0l:There is no significant difference between higher secondary boys and girls in their attitude towards home environment.

Table-2: Difference between higher secondary boys and girls in their attitude towards home environment

Gender	N	Mean	S.D.	't' value	Los at 5%
Boys	146	211.94	34.75	6.57	S
Girls	144	242.56	44.02		

It is inferred from the above table that, the calculated 't' value was 6.57, which is significant at 0.05 level. Hence, there is a significant difference between higher secondary boys and girls in their attitude towards home environment.

$H_0$2:There is no significant difference between government and private higher secondary school students with respect to home environment.

Table-3: Difference between Government and Private Higher Secondary School Students in their attitude towards Home Environment

Types of School	N	Mean	S.D.	't' value	Los at 5%
Government	131	226.47	**42.82**	**0.24**	**NS**
Private	159	227.69	**42.22**		

It is inferred from the above table that, the calculated 't' value was 0.24, which is not significant at 0.05 level. Hence, there is no significant difference between government and private higher secondary school students with respect to home environment.

$H_0$3:There is no significant difference in the attitude of higher secondary students towards home environment in terms of community

Table-4: Difference among the Attitude of Higher Secondary Students towards Home Environment in terms of Community

Community	Sum of squares	MSV	df	'F' value	LoS at 5%
Between	9071.501	3023.834	3	1.69	NS
Within	511089.70	1787.027	286		

It is inferred from the table that, the calculated "F' value was found to be 1.69, which is not significant at 0.05 level. Hence, there is no significant difference in the attitude of higher secondary students towards home environment in terms of community.

$H_0$4:There is no significant difference in the attitude of higher secondary students towards home environment in terms of religion

Table-5: Difference among the Attitude of Higher Secondary Students towards Home Environment in terms of Religion

Religion	Sum of squares	MSV	df	'F' value	LoS at 5%
Between	12111.690	60555.845	3	3.42	S
Within	508049.51	1770.207	286		

It is inferred from the above table that, the calculated 'F' value was found to be 3.42, which is significant at 0.05 level. Hence, there is a significant difference in the attitude of higher secondary students towards home environment in terms of religion.

Findings

- There is a significant difference between higher secondary boys and girls in their attitude towards home environment ..
- There is no significant difference between government and private higher secondary school students with respect to home environment.
- There is no significant difference in the attitude of higher secondary students towards home environment in terms of community.
- There is a significant difference in the attitude of higher secondary students towards home environment in terms of religion.

Conclusion

The attitude of higher secondary students towards home environment is moderate. There is a significant difference between higher secondary boys and girls in their attitude toward homes environment. When comparing the mean scores, girls are having better attitude towards home environment than the higher secondary boys. It may be due to the fact that the parents trust girls and give them more importance and freedom at home. That is, they have free and supporting atmosphere at home.

There is a significant difference in the attitude of higher secondary students towards home environment in terms of religion. When comparing the mean scores, Hindu higher secondary students have better attitude towards home environment than the Christians and Muslims. This may be due to the fact that the Hindu students have enough freedom in their home rather than the Christian and Muslim students.

The parents and teachers should understand the problems of their children in home and in school. The parents should create congenial environment at home, which may help the children to be emotionally balanced and stable. Parents should create an environment in which the children can express their feelings and share it with them. The children should also be given an opportunity to realize that they to have their own independent existence, which can build self-confidence in them. The parents should visit the school regularly so that it reinforces the views in the child's mind that school and home are connected and that the school is an integral part of the whole family life. Parents regularly watch their children's progress in education and whenever extra help is needed they should help them and guide them in their studies. Parents' help, encouragement and a suitable atmosphere for better studies will surely improve the academic achievement of their children to a great extent.

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Research Article

Leadership Behavior among B.Ed Trainees

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ABSTRACT

A leader is one who selects, equips, trains, and influences one or more followers who have diverse gifts, abilities, skills and focuses the followers to the organization's mission and objectives causing the followers to willingly and enthusiastically expand spiritual, emotional, and physical energy in a concerted coordinated effort to achieve the organizational mission and objectives. A good teacher is always a good leader. This paper is an attempt to study the leadership behavior of the B.Ed. trainees. 1000 B.Ed. trainees from thirteen colleges in Coimbatore district have been selected as sample. Leadership behaviour rating scale constructed by Sathiya Sivagirirajan (2008) is used as the tool to find the leadership behaviour of the B.Ed. trainees. The study reveals that the leadership behavior of the B.Ed. trainees is moderate. Also there is significant difference in the leadership behavior of the B.Ed. trainees based on the gender and age.

Keywords: Leadership Behaviour, B.Ed. Trainees, Teacher Education, Leadership Behaviour Rating Scale. Gender Differences, Age Differences

INTRODUCTION

Leadership is one of the most complex human behaviours. Sociologists, psychologists, strategists, historians, and business analysts have made significant progress in learning about leadership, there remains no single universally accepted formula for creating a great leader. Although leadership has been conceptualized from various perspectives, according to Northouse (2010) central to all the conceptualizations are the following characteristics:

- Leadership is a process that involves influence; and
- Leadership occurs in groups and involves common goals and purpose.

The leader achieves this same state for his/her own self as a leader, as he/she seeks personal growth, renewal, regeneration, and increased stamina-mental, physical, emotional, and

spiritual-through the leader-follower interactions. The leader recognizes the diversity of the followers and achieves unity of common values and directions without destroying the uniqueness of the person. The leader accomplishes this through innovative flexible means of education, training, support, and protection that provide each follower with what the follower needs within the reason and scope of the organization's resources and accommodations relative to the value of accomplishing the organization's objectives and the growth of the follower. The leader, in this process of leading, enables the followers to be innovative as well as self-directed within the scope of individual-follower assignments and allows the followers to learn from his/her/their own, as well as others' successes, mistakes, and failures along the process of completing the organization's objectives. The leader accomplishes this by building credibility and trust with the followers through interaction and feedback to and with the followers that shapes the followers' values, attitudes, and behaviors towards risk, failure, and success. In doing this, the leader builds the followers' sense of self worth and self-efficacy such that both the leader and followers are willing and ready to take calculated risks in making decisions to meet the organization's goals/objectives and through repeated process steps of risk-taking and decision-making the leader and followers together change the organization to best accomplish the organization's objectives.

Objectives

- To assess the level of leadership behavior among B.Ed. trainees
- To find whether there is any significant difference in the level of leadership behavior among B.Ed. trainees based on their gender, locality and age.

Methodology

Descriptive survey design is adopted using simple random sampling technique. 1000 B.Ed. trainees from thirteen colleges in Coimbatore district have been selected as sample. Leadership behaviour rating scale constructed by Sathiya Sivagirirajan (2008) is used as the tool to find the leadership behaviour of the B.Ed. trainees. Mean, Standard deviation, Percentage analysis, t test and F test were the statistical techniques adopted for the study.

Findings and Discussion

Research Question: 1

Is there an existence of moderate level of leadership behavior among B.Ed. trainees?

Percentage Analysis of Low, Moderate and High levels of Leadership Behaviour of the selected B.Ed. trainees

VARIABLE	LOW		MODERATE		HIGH	
	F	%	**F**	%	**F**	%
Leadership Behaviour	210	21.0%	676	67.6%	114	**11.4%**

S- Significant at 0.05 level **NS- Not significant at 0.05 level**

The results given in the above table shows the frequency and the percentage difference in the leadership behaviour among B.Ed. trainees. According to the table 21% of the B.Ed. trainees belong to low level of leadership behaviour, 67.6% of the B.Ed. trainees belong to moderate level of leadership behaviour and 11.4% of the B.Ed. trainees belong to high level of leadership behaviour. It is found that the majority of B.Ed. trainees have moderate level of leadership behaviour. Hence it is inferred that the level of Leadership behaviour among B.Ed. trainees is moderate.

Research Question: 2

ls there any significant difference in leadership behaviour among B.Ed. trainees based on gender?

Computation oft value of leadership behaviour mean scores of B.Ed. trainees between the groups based on their gender

S.No.	Sex	N	Mean	SD	T. value	P. value	Result
1	Male	91	62.73	9.678	7.965	.000	S
2	Female	909	74.99	14.367			

S- Significant at 0.05 level **NS- Not significant at 0.05 level**

The above table shows the t-value of the leadership behavior between male and female B.Ed. trainees. The t- value of the table is statistically significant at the 0.05 levels. Hence it

can be concluded that there is significant mean score difference in leadership behavior between male and female B.Ed., trainees. Further the mean score reveals that females (74.99) possess better leadership behavior than males (62.73).

Research Question: 3

Is there any significant difference in leadership behavior among B.Ed. trainees based on locality?

Computation oft value of leadership behaviour mean scores of B.Ed. trainees between the groups based on their locality

S.No.	Locality	N	Mean	SD	T. value	P. value	Result
1	Urban	434	73.47	14.329	0.791	.429	NS
2	Rural	566	74.19	14.530			

S- Significant at 0.05 level **NS- Not significant at 0.05 level**

The above table shows the t-value of the leadership behavior between urban and rural B.Ed trainees. The t-value of the table is not statistically significant at the 0.05 levels. Hence it is inferred that there is no significant mean score difference in leadership behavior between urban and rural B.Ed., trainees.

Research Question: 4

Is there any significant difference in leadership behavior among B.Ed. trainees based on age?

Evaluation of Mean and Standard Deviation of Leadership Behaviour among B. Ed. trainees based on their age

S.No.	Age	N	Mean	SD
1	Below 25	779	75.12	14.314
2	25- 30	171	67.66	13.500
3	Above 30	SO	75.84	14.230

S- Significant at 0.05 level **NS- Not significant at 0.05 level**

The result given in the table shows the F - Ratio of B.Ed. trainee's leadership behaviour between the groups based on their age. The f-value of the table is statistically significant at the 0. 05 levels. So it is inferred that there is significant difference in the B.Ed. trainees leadership based on their age.

Scheffe's Post HocMultiple Comparisons in leadership behaviour between the groups based on age among selected B. Ed. Trainees.

S.No.	Age Specification {I}	(J) Groups	Mean Difference (1-J)
1	Below 25	25- 30	7.456*
		Above 30	-.723
2	25 - 30	Below 25	-7.456*
		Above 30	-8.179*
3	Above 30	Below 25	.723
		25- 30	8.179*

*. The mean difference is significant at the 0.05 level.

The result given in this table (Scheffe's Multiple Comparisons table) shows which groups differed from each other. We can see from the above table that there is a significant difference in Leadership Behaviour between the age group below 25 and the age group 25-30, as well as between the age group above 30 and the age group 25-30 at 0.05 level of significance. However, there were no differences between the age groups below 25 and above 30.

Conclusion

The study reveals that the leadership behavior of the B.Ed. trainees is moderate. Also there is significant difference in the leadership behavior of the B.Ed. trainees based on the gender and age. But there is no significant difference in the leadership behavior of the B.Ed. trainees based on their locality. This study has been evolved with a wider scope of studying the field of education. The scope therefore encompasses an impact on various student teacher development areas.

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Research Article

A Study on Noise Attitude of XI Standard School Students

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ABSTRACT

Education is wide area of including all subjects, it reflects all natural of problems and solution of findings. Then there are several pollutions around the world. Finally study reveals that community wise noise pollutions are positive. In the present study normative survey method has been adopted. The present investigation is an attempt to study on noise attitude of higher secondary students. The present investigation has been conducted in 300 XI standard higher secondary school students in Erode district in Tamil Nadu state. The investigator used the statistical techniques of percentage analysis, t test and F test.

Keywords: Noise attitude, XI standard students, School environment, Adolescent behaviour, Environmental awareness, Classroom noise

INTRODUCTION

Education is never ending. It starts with the birth of an individual, and then it goes on till the last day of an individual. Education makes a full man. It is an essential human virtue. Education equips the individual with social, moral, life progressive, cultural and civilized. Environment is the whole sum of the surrounding external conditions within which an organism, community or object exists.

The environment of all mankind is the surface of the land, ocean and the air. Without these we would not be able to live. Natural environment is the home of man. Environmental pollution is one of the most horrible ecological crisis to which we are subjected today, we know that three basic amenities for living organisms are air, land and water. Sometimes in the past, these amenities were pure, virgin, undisturbed, uncontaminated and basically most hospitable for living organisms. But the situation is just the reveries today, because progress in science

and technology is also leading to pollution of environment and serious ecological imbalance which in the long run, may prove disastrous for mankind.

The main different kinds of pollution are as listed below: air, water, noise, thermal and marine pollution. In common use, the word noise means unwanted sound or noise pollution. Noise can block, distort or change interfere with the meaning of a message in both human and electronic communication. Noise can block, distort or change interfere with the meaning of a message in both human and electronic communication. Type of noise is Thermal Noise, Acoustic noise, Audio noise, Electronic noise and Visual noise. Causes of noise pollutions are scooter, motor bikes, buses, vans, tractors, trucks, aircraft's, boats, loud speakers, pop music, industries etc..

The present investigating to the investigator noise attitude of XI standard higher secondary school student's affect their school life situation.

NEED AND IMPORTANCE OF THE STUDY

We hear sound in our everyday environments ranging from traffic noise, office equipment and household appliances. Normally, there sound is safe levels that do not affect our hearing. Both the loudness of the sound and the duration of exposure to the sound are important. Sound is measured in decibels. Eight hour of hearing a sound at 85 decibels could affects hour hearing.

Noise and sound are natural events and we cannot avoid them. The student must know the noise awareness. Some of the XI standard higher secondary school students having positive attitude and some of them having negative attitudes towards noise hence the present study was conducted to study the XI standard higher secondary school student's attitude towards noise.

STATEMENT OF THE PROBLEM

The present study has been conducted to the study of higher secondary student's attitude towards noise. Hence the topic is entitled as "A Study on Noise Attitude on XI standard School Student's."

REVIEW OF RELATED LITERATURE

Dr. D. Gnanadevan1 (2007), and Sundha and Thiagarajan[2] (1997) in his studying Environmental Awareness of Higher Secondary Students concluded that the environmental awareness of higher secondary students is found to be high. **Sushma Pande[3] (2005) and Teipathi M.P[4]. (2000)** carried out a research on Environmental Awareness among rural and

urban children: A comparative study. The findings of enhance the chances of creating awareness about the environment, education process has to play a provocative role. **Alison, (2003)** conducted research entitled on An Evaluation of collaboration in environmental education. This research demonstrates that collaboration is a valuable process in closing the gap between classroom teacher and environmental education providers and improving environmental education experiences. **Nava- Whitehead, Susan, M. (2002)** conducted research on the effect of the Nature's classroom environmental education program on middle school student's performance and concluded that in the environmental education program, Nature's classroom positively affect a student's disposition to learn. **Feng Zhenmin, Wang Xiaohua[5] (2002)** in their study Survey and Evaluation on Residents Environmental Awareness in Jiangsu Province of China concluded that people have certain knowledge about the subjects, common feelings about the severity of environmental pollution, anxiety about the effects of environmental pollution on personal health, and objection to developing the economy at the cost of environmental destruction. **Paige, Kalhy, Charters and Mike (2002)** have done a research topic about, "Using sensory trails to develop environmental awareness. "They have revealed that students use their senses when working and thinking scientifically. The investigator was 40 studies are selected on abroad and India.

METHODOLOGY

In the present study normative survey method has been adopted. It involves describing, recording, analyzing and interpreting that the data which are all directed towards a better understanding of the Educational problem and finding solutions for them. The present investigator is an attempt to study on higher secondary student's attitude towards noise in relation to certain selected variables. The present investigation has been conducted in higher secondary school students in Erode district in Tamil Nadu state. The following tool has been used in the present study Noise Attitude Scale (NAS) the tool was constructed and standardized by Prof. M. Rajamanickam {1996). In the present study the coefficient of reliability of the noise Attitude scale has been found out by test and retest method and it was found to be 0.82 and the validity found to be 0.91. The present study is confined to the higher secondary students of Erode district in Tamil Nadu.

DELIMINATION OF THE STUDY

The present study is confined to the XI standard higher secondary students of Erode district in Tamil Nadu.

OBJECTIVES OF THE STUDY

On the basis of the present topic the investigator for formulated the following objectives.

- To find out the significance difference between the following demographic variables of higher secondary students in their attitude towards noise.
  - Boys and Girls
  - Urban and Rural
  - Community
  - Type of management

- To find out whether there is any significant difference between the following demographic variables of higher secondary students in their attitude towards noise.
  - Boys and Girls
  - Urban and Rural
  - Community
  - Type of management

HYPOTHESES OF THE STUDY

The following hypotheses have been formulated on the basis of the objectives of the present study.

- There is no significance difference between the following demographic variables of higher secondary students in their attitude towards Noise.
  - Boys and Girls
  - Urban and Rural
  - Community
  - Type of management

- ♦ To find out whether there is any significant difference between the following demographic variables of higher secondary students in their attitude towards Noise.
- ► Boys and Girls
- ► Urban and Rural
- ► Community
- ► Type of management

ANAYSIS AND INTERPRETATION OF THE STUDY

TESTING THE HYPOTHESIS

HYPOTHESIS - I

- ♦ There is no significance difference between the following demographic variables of higher secondary students in their attitude towards Noise.
- ► Boys and Girls
- ► Urban and Rural
- ► Community
- ► Type of management

Mean and standard deviation scores of higher secondary student's attitude towards noise of the gender, locality and community students

Variable	Demographic variable	category	N	Mean	S.D
Noise Attitude	Gender	Male	90	100.42	8.07
		Female	210	100.63	7.6
	Locality	Rural	131	101.08	9.36
		Urban	169	100.17	6.19
	Community	OC	14	97.86	6.46
		BC	97	98.74	7.47
		MBC	53	102.32	9.38
		SC/ST	136	101.47	7.05
Noise Attitude	Type of school	Govt.	149	99.78	8.4
		Govt. aided	117	101.56	7.01
		Private	34	100.61	6.82

In the above table no 1, the mean and standard deviation of the noise attitude score of male 100.42 (8.07), female 100.63 (7.60}, rural 101.08 (9.36), urban 100.17 {6.19}, community of OC 97.86 (6.46), BC 98.74 (7.47}, MBC102.32 (9.38) and SC/ST 101.47 (7.05), government 99.78 (8.40), government aided 101.56 (7.01), and private 100.61(6.82) higher secondary students are respectively. As the mean value is greater than the mid score of 300 i.e. 150 it is inferred that the noise attitude score of gender of male and female, locality of rural and urban, community of OC, BC, MBC and SC/ST and government, government aided, and private higher secondary students having positive attitude.

HYPOTHEIS - I

Significance of the difference between the means of noise attitude scores of higher secondary student's gender, locality and different types of community

Demographic variable	Category	N	Mean	S.D	't' value	Level of significant
Gender	Male	90	100.42	8.07	0.22	Not significant
	Female	210	100.63	7.60		
Locality	Rural	169	100.17	6.19	1.00	Not significant
	Urban	131	101.08	9.36		
Community	**OC**	14	97.86	6.46	0.46	Not significant
	BC	97	98.74	7.47		
	OC	14	97.85	6.46	2.07	significant
	MBC	53	102.32	9.38		
	OC	14	97.85	6.46	1.97	significant
	SC/ST	136	101.47	7.05		
	BC	97	98.74	7.47	2.55	significant
	MBC	53	102.32	9.38		
	BC	97	98.74	7.47	2.84	significant
	SC/ST	136	101.47	7.05		
	MBC	53	102.32	9.38	0.67	Not significant
	SC/ST	136	101.47	7.05		

In the above table no 2, In order to find out whether the difference between the gender of male and female, locality of rural and urban, community of OC and BC, and MBC and SC/ST that the calculated t value of 0.22, 1.00, 0.46 and 0.67 respectively table value at 0.05%

level. Therefore the mean noise attitude scores are not significant. Hence the result found that not significant of the difference between the means of noise attitude scores of higher secondary student's gender of male and female, locality of rural and urban, community of QC and BC, and MBC and SC/ST.

Similarly whether the difference between community of the OC and MBC, OC and SC/ST, BC and MBC, BC and SC/ST that the calculated t value of 2.07, 1.97, 2.55, 2.84 and 0.67 respectively table value at 0.05% level. Therefore the mean noise attitude scores are significant. Hence the result found that significant of the difference between the means of noise attitude scores of higher secondary student's community of OCand MBC, OCand SC/ST, BC and MBC, BC and SC/ST.

HYPOTHESIS - II

- To find out whether there is any significant difference between the following demographic variables of higher secondary students in their attitude towards noise.
- Boys and Girls
- Urban and Rural
- Community
- Type of management

ANOVA for noise attitude score of community and type of school noise attitude

Category	Source of variation	Sum of squares	df	Mean square	'F' value	Level of significant
Community	Between groups	701.635	3	233.87	4.02	Not significant
	Within groups	17203.75	296	58.12		
	Total	17905.38	299			
Type of school	Between groups	207.46	2	103.73	1.74	significant
	Within groups	17697.92	297	59.58		
	Total	17905.38	299			

A close look at table no 3, indicates that the "F" value (4.02) of noise attitude score is significant even at 0.01% level. Hence, the null hypothesis No.2 is rejected. The table reveals that the variable community found to have not significant with noise attitude.

A close look at table no 3, indicates 'F' value (1.74) of noise attitude score in not significant even at 0.05% level. Hence, the null hypothesis No.2 is accepted. The table reveals that the variable type of management found to have significant with noise attitude.

FINDINGS OF THE PRESENT STUDY

The following conclusions have been drawn based on the analysis and interpretation of the data gathered to clarify the different hypotheses formulated at the beginning of the study.

- It is found that the male and female, urban and rural, and higher secondary students differ do not significantly in their attitude towards noise.
- It is found that the higher secondary student belonging to OC and BC, and MBC and SC/ST communities do not differ significantly in their attitude towards noise.
- It is found that the higher secondary students belonging to OC and MBC, OC and SC/ST, BC and MBC, and BC and SC/ST community differ significantly in their attitude towards noise.
- It is found that the Government, Govt. Aided and private higher secondary students do not differ significantly in their attitude towards noise.

RECOMMENDATION

With the help of the findings, the investigator likes to emphasize that the central and state government and other social agencies should take keen interest to develop the awareness and attitude about noise among students in schools as well as colleges and also the teacher should thought we would like to draw the attention to the association between risk behavior regarding exposure to loud music. When the young higher secondary school students in the current study reported hearing discomfort and ringing after exposure to loud levels at concerts did not using ear protection. Education institution and social organization and government must give aware of noise induced hearing loss to prevent the young people from them and need educational programs to in still the importance of protecting hearing.

SUGGESTIONS FOR THE FURTHER RESEARCH

The present study is limited to only higher secondary students of 300 (three hundred).

Further it has been observed that in this study only few variables are studies.

- A similar study may be undertaken in college level.
- A similar study may be undertaken on a large sample.
- A similar study may be undertaken in relation with the other associated variables.
- A similar study may be undertaken all kind of people.
- A similar study may be undertaken in the universal level.

CONCLUSION

The study finally concluded that type of community and type of school noise attitude of higher secondary school students are affected for the problem of noise.

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Review Article

Perspectives of Structural Equation Modeling (SEM)

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ABSTRACT

Structural Equation Modeling (SEM) is basically a multivariate statistical analysis, profoundly linear and cross-sectional modeling which includes focussed dimensions of other analysis and methods such as canonical correlation, principal component analysis, factor analysis, path analysis, multiple regression, discriminant function analysis, growth analysis, trend analysis, bi-variate and inter-correlations as special statuses. Structural equation modeling (SEM) relies on sequence of other statistical methods that infer composite relationships between independent variables and dependent variables.

Structural Equation Modeling is often referred as simultaneous equation modeling, analysis of covariance structures or casual modeling or casual analysis or path analysis or confirmatory factor analysis or analysis of moments, because of its varied applications at abstract instances where multivariate techniques may be applied. Educational research, significant as any other research area with several complex variables, dimensions and structures, proportions and magnitudes, more importantly involving social samples that make studies still abstract in all aspects require numerous analyses to arrive at an apparent logical supposition (Maccallum, 1989). Structural Equation Modeling (SEM) will create possibilities to find out causal relationships by systematic experimentations, assumptions and suppositions by means of multivariate statistical analysis hence contributing in numerous ways to derive unbiased estimates for the relations between latent constructs between the independent and dependent variables.

Keywords: Structural Equation Modelling (SEM), Latent variables, Measurement model, Structural model, Causal modelling

INTRODUCTION

Structural equation modeling is widely used to analyze structural relationships between the variables. This model takes in to consideration the combination of multiple statistical methods and analysis to analyze the structural relationship between measured variables and latent constructs. Structural equation modeling is chosen to estimate the multiple and interrelated dependence in a single analysis. In this analysis, two types of variables are used endogenous variables and exogenous variables. Endogenous variables are equivalent to dependent variables and are equal to the independent variable.

Structural Equation Modeling is primarily concerned with 'Linear Structural Relations' (LISREL) between the variables. 'Structural relation' is connected with the handling of relationships between latent variables usually formulated by linear regression equations, graphically expressed by so-called path diagrams using or multiple linear regression, but with a system of regression equations. SEM's important characteristic is the capability to deal with latent variables, i.e. non- observable measures like true-score variables or factors underlying observed variables. Latent variables are variables that are not directly observed but are rather inferred (through a mathematical model) from other variables that are observed (directly measured).Latent variables are connected to observable variables by a measurement model (Schumacher & Lomax, 2010). SEMs consist of a structural model representing the relationship between the latent variables of interest, and measurement models representing the relationship between the latent variables and their manifest or observable indicators.

Perspectives of Structural Equation Modeling

Structural Equation Modeling aims at assimilating a set of relationships by providing consistency and comprehensive description singularities present in the variables. Two independent models namely a) measurement model and b) structural model that provides insight on how the study is influenced by the variable based on the constructs. i.e., the measurement model represents the theory that specifies how measured variables come together to represent the theory and structural model represents the theory that shows how constructs are related to other constructs. SEM is often referred as casual modeling as it assesses the casual relationships between the variables or constructs based on certain important assumptions. These assumptions vary in their characteristics, features and the variation in the statistical treatments with regard to finding out the casual relationships (Bollen, 1989). The following are

the conditions under which SEM may be applied in the research process in order to arrive at casual relationships.

- Multivariate normal distribution, which is generalization of the one-dimensional (univariate) normal distribution to higher dimensions. The maximum likelihood method is used and assumed for multivariate normal distribution. Small changes in multivariate normality can lead to a large difference in the chi-square test.
- Linearity, a statistical relationship or function that can be graphically represented as a straight line, as in two quantities that are directly proportional to each other. A linear relationship is assumed between endogenous and exogenous variables.
- Sequence, a set of related events, movements, or items that follow each other in a particular order. There should be a cause and effect relationship between endogenous and exogenous variables and a cause has to occur before the event.
- Model identification, includes the optimal design of experiments for efficiently generating informative data for fitting such models as well as model reduction. Comparisons must be greater than the estimated parameters or models should be over identified or exact identified. Under identified models are not considered.
- Sample size, determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. Most of the researchers prefer a 200 to 400 sample size with 10 to 15 indicators. As a rule of thumb, that is 10 to 20 times as many cases as variables.

Scope of Structural Equation Modeling (SEM)

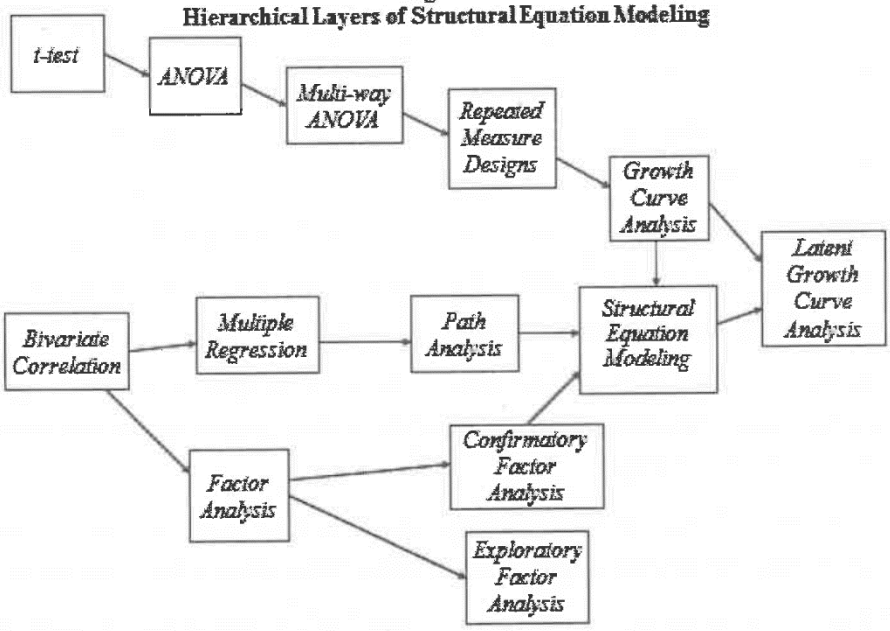
SEM can abstractly be applied to any research method involving one or more independent variables or one or more dependent variables. The chief goal of Structural Equation Modeling is to determine and rationality of a causal process or a construct or a model. This function of Structural Equation Modeling proves that SEM is a confirmatory technique. The feature of selecting sample from a population based on a sampling technique is similar in SEM like in other models or research process. The condition is that there should be a covariance

matrix to serve as dataset, which is based on the sample of collected measurements of the variables.

The possibility of applying SEM in social science research methods depends on whether the proposed study involves a population covariance matrix that is consistent with the sample covariance matrix. Kaplan (2000) observes that in this case one must specify a priori a model that will undergo validation testing; there are many questions SEM can answer.

The purpose of SEM is to examine a set of relationships between one or more independent variables and one or more dependent variables. The primary condition with regard to the variable for applying SEM is that both independent variables and dependent variables should either be continuous or discrete. Independent variables are usually considered either predictor or causal variables because they predict or cause the dependent variables (the response or outcome variables). SEM endorses whether the statistical model selected for the study is adequate or not. Parameters are estimated and compared with the sample covariance matrix. Structural equation modeling is referred as 'causal modeling' or 'analysis of covariance structures' as it involves multiple statistical methods and analysis may be applied to find out casual relationships. Path analysis and confirmatory factor analysis (CFA) are special types of SEM.

Figure:1
Hierarchical Layers of Structural Equation Modeling



Goodness of fit statistics can be calculated that ascertains whether the selected model is appropriate or needs further revision. SEM can also be used to compare multiple schemes that are specified a priori. SEM can determine the amount of inconsistency in the dependent variables which is accountable in determining the independent variables. SEM establishes the reliability of each measured variables, irrespective of whether it is a dependent or independent variable and further it mediates and moderates the covariance to achieve indirect effects. SEM regulates group differences in order to fit separate structural equation models for different groups and compare results. Possibility to include both random and fixed effects in the models and thus include hierarchical modeling techniques is possible in the analysis.

Precincts of Structural Equation Modeling

Pearl (2000) states that "modern SEM is far from the original causality modeling theme, mainly for the following two reasons, researchers have tried to build scientific 'credibility' of SEM by isolating (or removing) references to causality and causal relationships do not have commonly accepted mathematical notation". But SEM proves to be a confirmatory technique irrespective of the many limitations of application in finding the casual modeling techniques namely· path analysis, factor analysis, multiple regression, covariance matrix etc.,The major limitations of applying SEM in determining causal relationship between independent variables and dependent variables is that the researcher must be very careful with the study· design when using SEM for exploratory work.

a. Ability to model constructs as latent variables
b. SEM is a confirmatory approach. Need to have established theory about the relationships. It cannot be used to explore possible relationships when there are more variables. If there is not enough theoretical background the model will not deliver goodness fit.
c. Ability to model constructs as latent variables. SEM compares the performance of a model across multiple populations.
d. SEM applications needs to be have a large sample size to get stable estimates of the covariances/ correlations.
e. SEM is often thought of strictly correlational but can be used with experimental data.

f. Causal modeling' referring to SEM is distorted as there is nothing causal, in the sense of inferring causality, about the use of SEM.
g. SEM's ability to analyze more complex relationships produces more complex models: Statistical language has turned into jargon due to vast supply of analytic softwares (LISREL, EQS, AMOS) (Mueller, 1996).
h. Analysis of research reports methodologically based on SEM, usually a LISREL model, one notices that they lack review which is a prerequisite to parameter estimation.
i. Specification of a full model a priori and test that model based on the sample and variables included in your measurements. Also it is vital to know the number of parameters needs to be estimated - including co-variances, path coefficients, and variances. It is essential to know all relationships that need to be specified in the model.
j. Works with multiple, related equations simultaneously. Allows reciprocal relationships.
k. SEM will auto-estimate missing data and run the model simultaneously.

SEM has the ability to assess complex relationships between multivariate data, sample size is an important issue. Important assumptions with regard to sample selection for a structural equation modeling are that you need more than 200 observations, or at least 50 more than 8 times the number of variables in the model. A larger sample size is always desired for SEM (Maccallum, 1989).

As applied in the multivariate statistical methodologies, most of the estimation techniques used in SEM require multivariate normality. The data need to be examined for uni-variate and multivariate outliers. Transformations on the variables can be made. However, there are some estimation methods that do not require normality.SEM techniques only look at first-order (linear) relationships between variables. Linear relationships can be explored by creating bivariate scatterplots for all the variables (Schumacker & Lomax, 2010).

The residuals of the co-variances (not residual scores) need to be small and centered about zero. Multi-collinearity among the independent variables for manifest variables can be an issue. Most models other than structural equation modelling will inspect the determinant of a section of your covariance matrix, or the whole covariance matrix. A very small determinant may be indicative of extreme multi-collinearity(Schumacker & Lomax, 2010).

Inter-disciplinary applications of SEM

- SEM may extensively be applied in social and behavioural sciences, education, management, psychology, economics, chemistry, physics and biology.
- In cognitive sciences static and dynamic longitudinal structural analyses of cognitive changes in old age.
- In neurosciences unified structural equation modeling approach for the analysis of multi subject, multi variate functional Magnetic resonance imaging (MRI) data.
- In health and medicine applications of SEM to health outcomes research and SEM of inflammation and metabolic dysfunction in children.
- In business and commerce to evaluate the intention of logistics to use services in shipping.
- In social psychology use of a risk assessment instrument in child productive services, SEM extends its applications in developing social influences and exposure to media on adolescent deviations.
- Structural Equation Modeling like path analysis looks at the relationships among latent variables. It is useful because it accounts for the unreliability of measurement so it offers more un-biased parameters. Also lets you test virtually any theory or research.
- In theory testing it assesses the strength of prediction or association in models with multiple dependent variables and further extends its application in model fit.
- Mediation or tests of indirect effects in the experimental research process.
- SEM applications in ascertaining group differences, multiple-sample analysis, longitudinal models, multi-level nested models.

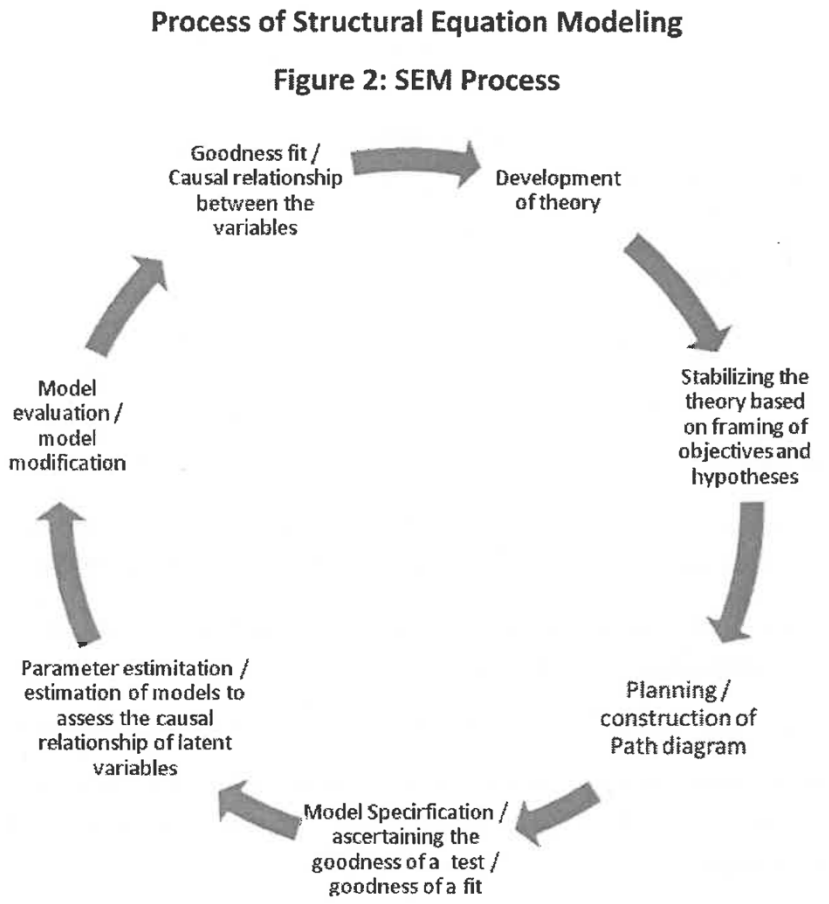


Figure 2: SEM Process

Advantages of SEM

- The model assesses the goodness of a fit, finds the causal relationship between the variables, finds the structural relationship between the variables.
- SEM is a graphical modeling interface, further SEM serves as a graphical model builder that is useful for creating the interrelated models.
- SEM tests models with multiple dependencies; path analysis, multiple regression, factor analysis, ANOVA are used to describe the directed dependencies among a set of variables.
- (SEM) is a methodology for representing, estimating the covariance/correlation modeling, however, relies on several statistical tests to determine the causality usually caused by linear dependency among observed variables.

- SEM tests coefficient across multiple relationships between groups; As a consequence, the multiple regression model by itself cannot be tested. To examine this further, considering two SEM models to determine the dependency between measures and to test a hypothesized hierarchical relation between the variables will serve in finding out the causality among the variables.
- SEM handles complex data structures / variable constructs; handles time series designs with auto-correlated error, non-normal data, incomplete data.
- SEM involves in finding out the structured modeling variances between indirect variables.

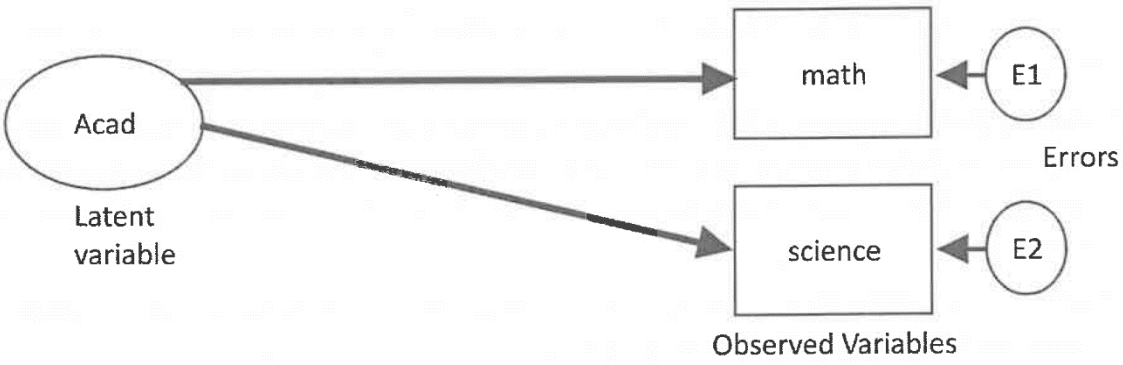
Types of diagrams symbols used in SEM

- **Rectangles : Observed variables**

[(Endogenous and Exogenous variables) (Independent variable that affects a model without being affected by it, and whose qualitative characteristics and method of generation are not specified by the model builder. An exogenous variable is used for setting arbitrary external conditions, and not in achieving a more realistic model behavior. An endogenous variable is a dependent variable generated within a model and, therefore, a variable whose value is changed (determined) by one of the functional relationships in that model)].

- **Circles : Error terms** (As a result of this incomplete relationship, the error term is the amount at which the equation may differ during empirical analysis. The error term is also known as the "residual", or the "remainder" term.)
- **Ovals : Latent variables** (latent variables are variables that are not directly observed but are rather inferred from other variables that are observed.
- **Single headed arrow** : represents prediction/ regression coefficient/ factor loading.
- **Double headed arrow** : represents correlation.

Figure 3: Example of SEM diagram



Summary

SEM is widely useful when there is a need to deal with latent (unobserved) constructs where there is a strong theoretical background to the data which is referred to as a priori hypothesis ascertaining complex relationships with a large sample. SEM are systems of linear equations that describe a network of relations among variables.

Further SEMs are implied systems of non-linear equations that describe patterns of variances and covariances among variables. SEM has a wide range of applications and it analyses the following vital research hypotheses; it questions about causal process, it questions of measurements and it questions about causal process when variables are not well measured. Further SEM implies to render solutions where proposed causal explanations are made explicit, tests of fit allow implausible models to be rejected and competing models can often be compared, and one may emerge as more plausible given the data.

Structural equation modeling as an enterprise or by itself is a phenomena which is very difficult to characterize. It is a model of causality, covariance, correlation etc. The major components of SEM includes canonical correlation, principal component analysis, factor analysis, path analysis, multiple regression, discriminant function analysis, growth analysis, trend analysis, bi-variate and inter-correlations thus extending its applications to a wide range of analysis that precisely assess and interpret data.

Glossary of terms:

Analysis of Variance (ANOVA) is a statistical method used to test differences between two or more means. It may seem odd that the technique is called "Analysis of Variance" rather than "Analysis of Means."

Analysis of covariance (ANCOVA) is a general linear model which blends ANOVA and regression.

Behavioural sciences: is the systematic analysis and investigation of human and animal behaviour through controlled and naturalistic observation and disciplined scientific experimentation. It attempts to accomplish legitimate, objective conclusions through rigorous formulations and observation.

Causal modelling: A causal model is an abstract model that describes the causal mechanisms of a system. The model must express more than correlation because correlation does not imply causation.

Confirmatory factor analysis (CFA): Confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists.

Construct: In a scientific theory, particularly within psychology, a hypothetical construct is an explanatory variable which is not directly observable.

Covariance matrix (also known as dispersion matrix or variance-covariance matrix) is a matrix whose element in the i^{th} j^{th} position is the covariance between the /hand t elements of a random vector. A random vector is a random variable with multiple dimensions.

Dependent variable: a variable (often denoted by y) whose value depends on that of another. A dependent variable is what you measure in the experiment and what is affected during the experiment. The dependent variable responds to the independent variable. It is called dependent because it "depends" on the independent variable.

Endogenous and Exogenous variables: As with endogenous variables, the status of the variable is relative to the specification of a particular model and causal relations among the independent variables. An exogenous variable is by definition one whose value is wholly causally independent from other variables in the system.

Goodness of fit: The goodness of fit of a statistical model describes how well it fits a set of observations. Measures of goodness of fit typically summarize the discrepancy between observed values and the values expected under the model in question.

Independent variable: a variable (often denoted by x) whose variation does not depend on that of another. An independent variable is the variable that is changed or controlled in a

scientific experiment. Independent variables are the variables that the experimenter changes to test their dependent variable. The effect on the dependent variable is measured and recorded. An independent variable is a variable that is manipulated to determine the value of a dependent variable s. The dependent variable is what is being measured in an experiment or evaluated in a mathematical equation and the independent variables are the inputs to that measurement.

Latent growth modelling is a statistical technique used in the structural equation modeling (SEM} framework to estimate growth trajectory. It is a longitudinal analysis technique to estimate growth over a period of time. It is also called latent growth curve analysis. The latent growth model was derivedfrom theories of SEM.

Linear Structural Relations: LISREL, an acronym for linear structural relations, is a statistical software package used in structural equation modeling (SEM)for manifest and latent variables.

Latent variables: are variables that are not directly observed but are rather inferred (through a mathematical model)from other variables that are observed (directly measured).

Multiple regression: is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. The variable we want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable).

Path analysis: Path analysis is a straightforward extension of multiple regression. Its aim is to provide estimates of the magnitude and significance of hypothesised causal connections between sets of variables. This is best explained by considering a path diagram.

Priori: deductive, relating to or derived by reasoning from self-evident propositions - compare a posteriori, presupposed by experience.

Univariate and Multivariate Outliers: A univariate outlier is a data point that consists of an extreme value on one variable. A multivariate outlier is a combination of unusual scores on at least two variables. Both types of outliers can influence the outcome of statistical analyses. Outliers exist for four reasons. Incorrect data entry can cause data to contain extreme cases. A second reason for outliers can be failure to indicate codes for missing values in a dataset. Another possibility is that the case did not come from the intended sample. And finally, the distribution of the sample for specific variables may have a more extreme distribution than normal.

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Review Article

An Economic Impact of Educational Policies among Marginalized Groups in India

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ABSTRACT

The story of Indian education is one of quantitative progress but conspicuous failures in quality. After six decades, India has made notable improvement in the gross and net enrolment ratio and achieved universal enrolment in lower primary education. School attendance improved substantially since the mid-1990 especially among girls. Hence, this research paper mainly focus on to analyse the rural net attendance ratio by social groups and main religious groups in India, to review of policies and programmes related to school education and to analyse the proportion dalits children enrolment in schools. This study uses the secondary data from National Sample Survey Organization, Ministry of Human Resource Development Reports, India Rural Development Report and national Family Health Survey. Primarily major findings of this study about 28 per cent of rural primary school age children attend private schools. Every 100 children enroll first standard about 30 drop out before reaching class V and more than 40 before reaching class VIII. This study highlights to Attendance of public school teacher is low and even teachers who attend often do not teach. Finally, provisionally given recommendations of this study on priority give to girls education, skill development and financial assistance for livelihood support to most vulnerable people, Government of India should be taken an action to ensure to the quality of education given to all the sector of the society and Governments must to be establishing to new skill based training center for Girls in all regions of the country.

Keywords: Educational Policies, Marginalized Groups, Economic Impact, Inclusive Education, Policy Analysis, Social Equity, Economic Development, Access to Education

INTRODUCTION

India's education policies have largely been geared towards increasing school enrolment. Universal elementary education as enshrined in the Constitution's Directive Principles of State Policy. But, while they urged the government to provide free and compulsory education to all children until age 14, the Directive Principles are not binding. In 1976, education was transferred from the state list to the concurrent list through a Constitutional amendment, with the objective of promoting meaningful educational partnerships between the central and state government. The National Policy on Education (NPE) in 1986 was an important landmark with its emphasis on universal enrolment in elementary education. More recently, universal elementary education was reinforced with the 86th Constitutional Amendment 2002 and the Right to Free and Compulsory Education Act (RTE) 2009, which recognized elementary education as a fundamental right. Since the 1980's the Government of India has initiated a number of programme like operator blackboard, district primary education programme, Sarva Shiksha Abhiyan and mid-day meal scheme to achieve enrolment in schools.

Central and state government expenditure on education, which approached 3.5 per cent o1 GDP in the 2000's backed these policies and schemes, although spending continues to fall short oi the 6 per cent of GDP recommended by the Kothari Commission in 1966 and again by the Central Advisory Board of Education in 2006. While central government expenditure has increased, state government spending which still accounts for 80 per cent of total public expenditure on education increased at a slower pace. Spending on education still varies greatly by state.

Review of Literature

The study conducted by Prof. Jensen (2012) government improved job opportunities and increased returns on higher secondary education may have driven higher female attendance, as labour market opportunities have been found to reduce the probability of women getting married or having children young as they opt for further schooling, post-school training or join the labour market. The study by Prof. Tilak (2006) although the government offers free elementary education and a few other incentives, students in rural government schools must still pay for admission, stationery and books, travel, tuition, examinations and library

privileges, which may lead to higher dropout rates among disadvantaged social and religious groups.

World Bank sponsored research work done by Dr. Nambissan (2010) found that dalits and ST's are sometimes discriminated against in schools and, coupled with inadequate parental support in learning, lag behind, lose motivation and have higher dropout rates.

Objectives of the Study

- To analyse the rural net attendance ratio by social groups and main religious groups in India.
- To review of policies and programmes related to school education.
- To analyse the proportion of dalits children enrolment in schools.

Sources of Data

This study makes use of secondary data relating to sex-wise rural net attendance ratio, by social groups and main religious groups, various government welfare schemes in school education and proportion of children attending school level education by religion from National Sample Survey Organization, Ministry of Human Resource Development Reports, India Rural Development Report and National Family Health Survey.

Progress of School Education in Rural India

The story of Indian education is one of quantitative progress but conspicuous failures in quality. After six decades, India has mode notable improvements in the gross and net enrollment ratio, and achieved universal enrolment in lower primary education. But universal enrollment for upper primary and other higher levels of education is still far away.

Net Attendance Ratio (NAR), seen a better indicator of children going to school, has improved substantially between the mid 1990's and late 2000's although school attendance is still far from universal in rural India. School Attendance of girls rose sharply during this period, resulting in reduced gender disparity at the elementary level. Although wide gender inequalities persist at higher levels, female attendance at the secondary and higher secondary school level has also increased significantly since 1995-1996.

Table - 1: Sex-wise Rural Net Attendance Ratio (in per cent)

Class	1995-1996			2009-2010			Increase (in Percent)		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
I-V	56	68	63	77	79	78	38	16	24
VI-VIII	32	44	39	56	55	55	75	25	41
IX-X	17	26	22	39	48	44	129	85	100
XI-XII	8	13	11	26	31	29	225	138	164

Source: NSS 64th Round.

Some states have successfully used incentives to increase female students' attendance at higher levels. For example, Bihar and Uttarakhand provide grants for bicycles to incentivize girls aged 14 and above. Tamil Nadu provide bicycle to all the students after completion of upper secondary education and gives laptop to higher secondary students. In this welfare programme has resulted shows 40 per cent increase to girl child enrolment in class IX, and a 10 per cent increase in the number of girls appearing for the class X board examination. Also, in 2008 the central government introduced a pilot conditional cash transfer scheme in 11 blocks to provide a significant cash transfer to families of girls that receive immunization, remain in school at least until class VIII and delay marriage until the age of 18. Many states also have similar schemes for instance, Delhi and Haryana provide transfers to girls through 'ladli' schemes conditional on completing class X. Tamil Nadu implemented special cash incentives to students has been given in the state from 2011-12. Under this scheme, Rs. 1500 per student those studying in X and XI standard and Rs. 2000 per student studying in XII standard in Government and Private aided schools. This resulted reduced to dropouts in all levels of education.

Table - 2: Rural Net Attendance Ratio by Social Groups and Main Religious Groups

Social Group	Primary		Upper Primary		Secondary		Higher Secondary	
	Males	Females	Males	Females	Males	Females	Males	Females
ST	82.4	78.7	58.8	54.9	25.5	25.9	12.7	8.5
SC	81.5	77.4	60.7	55.4	33.3	30	20.6	16.4
OBC	83.3	81	62	55.7	42.8	35.7	26.4	19.9
OTHERS	85.6	83.8	67.2	67.1	47.1	43.4	29.4	24.3
All	83.3	80.5	62.5	58.1	40	35	25	20

HINDU	84.2	81.5	64.5	60	41.7	36.9	26.2	19.09
MUSLIMS	78.7	74.9	48.7	45.3	26	23.5	10.9	11.3
CHRISTIANS	79.1	78.8	63.9	70.9	49.4	42.4	32.5	36.5
SIKHS	85.7	77.5	63.3	57.3	40.8	39.4	24.6	20.9

Source: IHDR (2011) Calculated from NSS 64th Round.

But wide attendance gaps persist across socio-economic groups. Although attendance among the socially disadvantaged groups has increased at the elementary school level, attendance rates of SC's and ST's diverge from that of other social groups at higher levels. Among the main religious group, rural Muslims have lowest attendance rates at all levels (IHDR 2001). Muslim children also make up the highest proportion of out-of-school children of all social and religious groups. The high dropout rates or low completion rates of rural school children is a major concern. Out of every 100 children who enroll in class I, about 30 per cent drop out before reaching class V and more than 40 before reaching class VIII. Fewer girls drop out of primary school than boys, but the reverse is true at the upper primary level. This is probably because girls in the upper primary age group are required to help with household chores.

The high dropout rates among children from socially disadvantaged communities are even more alarming. Almost 45 per cent of SC children and 55 per cent of ST children dropout of school before completing class VIII and this proportion increases to 60 per cent and 70 per cent, respectively, before reaching class X.

An Economic Review of Policies and Programmes

Many government initiatives have failed to yield satisfactory results because they rely too heavily on inputs rather than on identifying and focusing on the factors that determine learning outcomes. This section briefly evaluates the main government schemes and polices.

Right to Education Act

The Right of Children to Free and Compulsory Education (RTE) Act 2009, is a landmark initiative that aims to universalize education for children between 6 and 14 years by improving school infrastructure and the number and quality of teachers. The RTE also aims to address social inequalities by reserving 25 per cent of private school seats for disadvantaged students, including Dalits, Tribes and low income groups. The RTE expects students to be placed in age appropriate classes, without considering individual abilities. Its provisions for

automatic promotions until class VIII, without examinations and without completing the syllabus within a defined time period, may actually result in children falling further behind as they move to higher classes.

The RTE mandates School Management Committees (SMCs), also called Village Education Committees (VECs) in some states, to monitor schools' performance and create an annual school development plan. Largely comprised of locally elected representatives and parents, these bodies are supposed to enhance school accountability and bring efficiency at the grassroot level. But with very little control over school expenditure, little decision-making power and low capacity, they have not been very successful.

Sarva Shiksha Abhiyan (SSA)

A flagship government programme, SSA has operated since 2001 to ensure free and compulsory education to children in the 6 to 14 years age group. SSA primarily aims to strengthen existing school infrastructure and bridge gender and social gaps in elementary education.

Between 2002 and 2009, primary school education improved substantially in terms of infrastructure, access, and enrolment. Primary school coverage improved across all states, although in the upper primary level, coverage decreased in Bihar, Haryana, and Rajasthan. Shortage of funds, delays in receiving them, and poor monitoring and supervision are constraints in the scheme's implementation. After RTE was implemented, SSA was modified and started operating as a vehicle of the implementation of RTE, with funds for setting up new schools, constructing classrooms, providing basic facilities in schools, and recruiting additional teachers. Since 2010, the share of schools with infrastructure such as boundary walls, functioning toilets, separate toilets for girls and libraries has increased, and schools have gradually been meeting the pupil-teacher ratio norms.

Mid-Day Meal (MOM) Scheme

The MDM scheme is an extension of the National Programme of Nutritional Support to Primary Education, launched as a centrally sponsored scheme in 1995. Although some states initially served only dry rations, by 2005 all states provided cooked and balanced lunches to primary school students. By 2008 mid-day meal scheme was extended to elementary level in government and government-aided school. In the case of Tamil Nadu in MDM all government and aided schools are providing food to primary, secondary and higher secondary school level.

This scheme introduced by former chief minister of Tamil Nadu Mr. K. Kamaraj and Mr. M. G. Ramachandran bring this scheme to under government funded scheme.

MDM has the potential to overcome nutritional challenges. A common critique has been that the food served is deficient in key nutrients in many places, but most states have made progress on this front. For instance, Rajasthan, which served mainly wheat boiled with salt or sugar it is called 'ghoogri' in 2002, now provides balanced meal with fruit twice a week and even poorer states like Odisha serve eggs twice a week. In Madhya Pradesh the MDM has been found to improve the nutritional intake of children with the daily nutrient intake increasing by between 50 and 100 per cent which helped reduce protein, calorie and iron deficiency. One concern that remains is that infrastructure constraints persist apart from Tamil Nadu and Kerala, schools in most states lack a clean source of water, kitchen sheds and storerooms, making it difficult to ensure that the food served are hygienic. There are concerns relating to pilferage and adulteration of the food, and most states do not follow PDS guidelines, which sometimes compromises the quality of food and threatens the health and safety of children.

Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

As compared to elementary education, India has shown little progress in secondary education. The regional, gender and social disparity in access and participation are even greater than at the elementary school level. Against this backdrop, the RMSA scheme was launched in 2009 to make quality secondary education accessible and affordable to all children. The scheme aimed to raise gross secondary school enrolment from 52 per cent in 2005-2006 to 75 per cent within five years of implementation and universal access by 2017.

Under RMSA over 9,500 new schools were approved nearly 60,000 teachers were added and all teacher received in-service training. But so far the achievements have fallen far short of the goals. Similar to RTE, the RMSA is not outcome focused and the scheme lacks effective assessment mechanisms. It also does not address the variation among secondary school standards across states or create uniform, quality education in India. Secondary level learning outcomes, therefore, remain very poor.

Enrolment and Participation in Educational Institutions

The proportions of children on enroll or actually attending educational institutions is a good measure of current participation in and utilization of deduction opportunities. Table -3 presents a little more detailed account of levels of participation in educational opportunities.

Overall, seven out of 10 children in the age group of 6-18 attended schools during the school year 2006. As expected, the level of participation in schooling was higher at lower ages than at upper ages. For instance, while eight out of 10 children attended schools in the age group of 6-14, the corresponding ratio for age 15-18 war roughly 5:10. This implied a higher incidence of discontinuation or dropping out from school at the elementary level.

Table - 3 : Proportion of Children Attending School

Age (in years)	All	Muslims			Hindus			
		OBC's	Others	All Muslims	SC's	OBC's	Others	All Hindus
6-10	76.5	61.6	66.6	66.1	75.4	78.2	87.1	78.4
11-14	80.0	64.6	67.9	67.2	77.0	83.3	91.5	82.3
15-18	47.4	33.4	34.1	34.1	41.4	49.6	64.3	49.6

Source: National Family Health Survey, 2006. IIPS, Mumbai

At one extreme are the children of Hindu-other, of whom nine out of 10 in the age group of 6-14 attended schools, indicating that they are on the verge of attaining universal elementary education. On the other extreme stand the children of Muslim OBC who are least likely to attend school in the relevant age group, although even the children of Muslim other are not better-off as compared to the SCs, leave alone the Hindu OBC or Hindu other. This calculus, however, takes a heavy toll among Muslims are compared to others.

Recommendations of this Study

- The following recommendations are made on a pragmatic basis and with a view to provide a new base-line of action.
- Priority to give girls education, skill development and financial assistance for livelihood support to most vulnerable people.
- There is need for revision in the prevalent unit cost of scholarships and doing away norms and eligibility criteria (marks, domicile, income and caster certificates and two child norms) making them uniform scheme to all the marginalized people.
- Increase to the awareness about the interventions cut across beneficiaries and service providers about all government scheme related to education sector.
- Focus must be given on small towns, rural areas, remote villages and backward regions where Gross Enrolment in Higher Education is very low compared to the urban area.

- Government of India should be taken an action to ensure to the quality of education given to all the sector of the society.
- Governments must to be establishing to new skill based training center for Girls in all regions of the country.

Conclusion

The quality of school education is central to the progress of a nation. It has several benefits other than labour market productivity and the income it generates. It is though formal education that societies pass on knowledge and expertise from one generation to the next. Educated population offers a more valuable human capital base to the economy. A developed economy has the maximum concentration of jobs in the tertiary sector that requires highly skilled work force which has expertise in specific fields. It is need based on quality of school education. Strong education system help to more social benefits of through education include a more educated and better informed electorate, lower rates of crime and violence, lower rates of poverty, better health and nutrition, and generally a more smoothly functioning society. Formal education is instrumental in changing the perspectives and mindsets of people. It helps eradicate superstitions and augment scientific temper. It strengthens networks and institutions necessary for individual and group interactions. The immediate need is to address crucial problems in our education systems such as teacher absenteeism, teacher - pupil ratios, inadequate teaching material and infrastructural facilities, particularly in rural areas.

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