

RESEARCHERS ORGANIZATION BILASPUR. CHHATTISGARH (Regd.No. 13554/11)

ISSN: 0976 - 1160

(Bi-annual & Bi-lingual)

JOURNAL OF EDUCATIONAL RESEARCH

Volume 4

Number 1

April 2013



RESEARCHERS ORGANIZATION BILASPUR (C.G.)

(Regd. No. 13554/11)

Flat - H/2, Vaishali Nagar, Ward-13, Bilaspur. (C.G.) Pin 495001

REGIONAL EDUCATIONAL EXPERTS/COORDINATORS

ANDHRA PRADESH : Dr. Avvaru Ramakrishna : Professor, IASE, Osmania University Hyderabad. A.P. Mob. 9849036025 e-mail : avvaruramakrishna@gmail.com ASSAM : Dr. Geetika Bagchi Head & Associate Professor, Asssam University, Dorgakona, Silchar. Assam. 788011 Mob. 9435176394 e-mail : geetikabagchi31@gmail.com DELHI : Dr. B. K. Panda Associate Prof, NUEPA, NCERT Campus, New Delhi. Mob. 981069829. e-mail : panda_bk@hotmail.com GUJARAT: Dr. Satish P. Pathak Reader, CASE, M.S. University, Baroda. Vadodara. Gujarat Mob. 9925270529 e-mail : pathakspp_msu@yahoo.co.in HARYANA : Dr. Raj Kumar Yadav, Principal, Rao Abhay Singh College of Education, Saharanwas, Rewari. Haryana Mob. 9896684901 e-mail : drrajkumaryadav@rediffmai.com JAMMU-KASHMIR : Dr. Surinder Kumar Sharma, Research Officer, State Institute of Education, Jammu. (JK) Mob. 9419655969 e-mail surinder_ksharma@yahoo.com JHARKHAND: Mrs. Vjiay Sharma, Reader, Loyola College of Education. TELCO, Jamshedpur. Mob. 9430381718. e-mail : vijshain@yahoo.com KERALA: Dr. M.S. Geetha Principal, Govt. College of Education Thalassery, Distt. Kunnur. Kerala Mob. 9496257892 e-mail : geethasomnath@yahoo.com MADHYA PRADESH : Dr. Arun Prakash Pandey, Professor, Govt. College of Education, Ujjain. M.P. Mob. 9425380540 e-mail : amanilion@gmail.com MAHARASHTRA : Dr. Suhas R. Patil, Principal, Govt. Secondary Training College, 3 Mahapalika Marg, Dhobi Talao, Mumbai-1 Mob. 982222857 email : srp_manu@yahoo.co.uk RAJASTHAN : Dr. Vikas Modi. Asstt. Prof., Shah G. L Kabra Teachers' College, Near Geeta Bhawan, Jodhpur.Mob.9413742106 e-mail : vikasjodhpur1@gmail.com UTTAR PRADESH : Dr. Alok Gadia, Asstt. Prof. Faculty of Education BHU Kamachha, Varanasi.Mob. 9415992434 e-mail : alokleducator@gmail.com UTTARAKHAND : Dr. Meena Manral, Asstt. Prof., Faculty of Education Kumaun University, Almora. Uttarakhand. Pin. 201005 Mob : 9412223924. e-mail : meena.manral@gmail.com WEST BENGAL: Dr. Shyam Sunder Bairagya, Reader in Education, University of Gour Banga, Distt. Malda. W.B. Mob. 9433256325. e-mail : ssb.ku@rediffmail.com

Volume 4

Number 1

April 2013

From Editor's Desk

Dear Friend,

Very glad to place the seventh issue of EDUSEARCH in your hands.

Higher Education in India refers to Post-Secondary or tertiary level of education. The quantum of growth in the higher education is spearheaded by universities, which are the highest -seat of learning. The word 'University' is derived from the Latin '*universitas*', which means specialized association between students and learners.

Certainly there is a gap between the school education and the higher education. The gap may be measured in quantitative as well as qualitative variables.

As per the quantitative part is concerned, the number of universities has increased from 30 in 1950-51 to 634 by Dec. 2011. Likewise the number of colleges also rose up to 33033 from 695 during that period. Tamilnadu is at the top with 59 universities and Maharashtra state with 4631 topped in the list of colleges. Though the number of students who join higher education is about 18.1 million, but it is only 12.4 percent of the gross output of school education by the end of XIth Five Year Plan.

Thrust areas in the past five year plans were- VIth Five Year Plan (1980-1985) Quality Improvement, VIIIth Five Year Plan (1985-1990) Focus on Research and Academic Development, VIIIth Five Year Plan (1992-1997) Funding for development of new Departments/ Courses, IXth Five Year Plan (1997-02) Adapting to Social and Economic Changes, Xth Five Year Plan (2002-07) Improving Quality and Relevance of Higher Education, XIth Five Year Plan (2007-12) Inclusive Growth of Higher Education and for the XIIth Five Year Plan (20012-17) Inclusive and Qualitative Expansion of Higher Education. From the qualitative point of, there are 18 regulatory bodies on order to control the quality of higher education. But as per the management funda, if the input quality of any process is low, then we cannot improve much in the output after processing. The input for higher education comes from school education. There is no proper mechanism developed to improve the quality of secondary education. The recommendations of Kothari Commission (1964-66), National Policy on Education (1986), Programme of Action (1992) and recently, National Curriculum Frame work (2005), NCF for Teacher Education (2009) have suggested several measures to improve the quality of education at secondary level. Still a lot has to be done in this field.

Here it becomes necessary to infuse the role of higher education in developing and imparting the secondary education. A scheme may be developed by associating various universities of the state with its departments in developing the curriculum for the secondary level at the Boards of Secondary Education, as these are responsible for evaluation of the students at secondary level. By this process, timely updating of the curriculum at secondary level as per the requirements of the university can take place.

The colleges should be assigned with the responsibility of accreditation of the secondary schools in its feeding area so that the quality of the students coming out of the school may be at par with the quality requirements of the college concerned.

By all these efforts the input quality of higher education can be improved and qualitative expansion could be achieved.

Hence the special theme for October 2013 is "Bridging Gaps between Higher Education and School Education."

B. V. Ramana Rao

ISSN:0976-1160

(Bi-annual & Bi-lingual)

JOURNAL OF	EDUCATIONAL	RESEARCH
------------	-------------	----------

Volume 4

Number 1

April 2013

CONTENTS

SCALE CONSTRUCTION

Construction and Standardization of Second Language Aptitude Test (SLAT)	1
Karthigeyan, K. & Dr. Nirmala, K. (Salem, Tamilnadu)	
Designing and Developing an Instrument for Assessing Frustration -	13
Tolerance of Student Teachers.	
R. Porthia. (Thirunalveli, Tamilnadu)	

TEACHER EDUCATION

Usage of Meta Cognitive Strategy by Teacher Trainees: An Explorative Study.	23
Dr. Prakash Chandra Jena (Phagwara, Punjab)	
A Study on Pre-service Teacher Education Programme of Utkal University.	29
Malini Pattanaik (Bhubaneshwar, Odisha)	
An Appraisal of Quality Management Initiatives in the Area of Teacher	35
Education with Special Reference to Meerut Region.	
Dr. Manindra Kumar Sharma. (Meerut, Uttar Pradesh)	

ACADEMIC ACHIEVEMENT, ASPIRATION & MOTIVATION

A study on Role-play for boosting Academic Achievement of Students in	40
Language Skills at Secondary Level.	
Dr. Bhindhu, C. M. & Niranjana, K. P. (Calicut, Kerala)	
Academic Achievement as a function of Emotional Competence and other	43
Demographic Variables. Dr. Sumanlata Saxena &	
Dr. Laxmi, D. (Bhilai, Chhattisgarh)	
Academic Achievement of High School Students in relation to their Mathematics	47
Anxiety. Dr. Sangeeta K. Barwal & Priyanka Sharma	
(Mandi, Himachal Pradesh)	
Academic Achievement of Students with respect to Parent-Child Relationship	53
and Ordinal Number. Dr. Vani Subramanyam	
(Bhilai, Chhattisgarh)	
A Study on Parental Relationship, Involvement and Pressure as Correlates of	57
Achievement Motivation among Engineering Students.	
Kiranjeet Kaur (Firozpur, Punjab)	
A Study on Impact of Mother's Education on Academic Aspiration of Students at	65
Secondary Level. Dr. Padma Gouri, G. & Dr. Shrivastava, Y.V.	
(Raipur, Chhattisgarh)	

EVALUATION

A Study of Examination Stress in Post Graduate Students of Himachal	66
Pradesh University. Dr. J. D. Singh (Sangariya, Rajasthan)	
Evaluation of Non-Cognitive Areas. Dr. Venkataswamy B. & Mrs. Santhi, P.	73
(Guntur, Andhra Pradesh)	
MISCELLANEOUS	
Essential Guidelines of Writing Paper for Publication: An Overview.	77
Ramesh, M & Ravi, V. (Vadodara, Gujarat)	
An Investigation into Leadership Styles of Secondary School Principals'	83
and their School Climate.	
Dr. Neera Goutam & Deep Kumar. (Patna, Bihar)	
Status of SSA Interventions on Education of Children with Special Needs in	88
Jatni Block Odisha. Dr. Prabhat Manjari Sarangi.	
(Bhubaneshwar, Odisha)	
Teachers' Belief on Mathematics Textbook of Equitable Education System.	94
Sudarmathi, R. & Dr. William Dharma Raja	
(Tirunalveli, Tamilnadu)	
Awareness about Dyslexia among Teachers and Parents with reference to	99
Hindi Feature Film- "Tare Jamin Par".	
Dr. Rachita Shrivastava Roy (Durg, Chhattisgarh)	
Vygotskys' Social Interaction Theory for Cognitive Growth : A Descriptive Analysis.	102
Dr. R. Subramani Mudaliar (Vadodara, Gujarat)	
Emotional Quotient of Secondary Grade Students with reference to their Gender	109
Dr. Vikas Modi (Jodhpur, Rajasthan)	
Job-Stress among Secondary School Teachers of Jammu.	111
Kamaljeet Kaur & Dr. Mubarak Singh	
(Jammu, Jammu & Kashmir)	
Multimedia and ICT Skills of Contemporary Teachers. Pinkal R. Chaudhary	116
& Dr. Anjali Khirwadkar (Vadodara, Gujarat)	
HINDI SECTION	
कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में सकल्पनाओं की प्राप्ति का अध्ययन।	121

पण्वा नपना पर्ग पिंधाविया पर्ग नातिपर्ग पिंधान पिषेच न संपर्शलपनीओं पर्ग प्रापि पर्ग अव्ययन (141
गणेश प्रसाद साव एवं नीरज जोशी (संतालडीह, पश्चिम बंगाल)	
किशोर विद्यार्थियों के विद्यालयी वातावरण का उनके शैक्षिक उपलब्धि स्तर एवं मूल्यों पर पड़ने वाले	125
<i>प्रभाव का अध्ययन</i> / डॉ. पुष्पेन्द्र कुमार लूनियॉ (जयपुर, राजस्थान)	
माध्यमिक स्तर पर विद्यार्थियों में आलोचनात्मक चिन्तन के विकास में संकल्पना प्राप्ति प्रतिमान की	130
<i>प्रभाविता का अध्ययन</i> / डॉ. अर्चना दुबे एवं दिव्या विजयवर्गीय	
(इन्दौर, मध्य प्रदेश)	
प्रारम्भिक स्तर के विद्यालयों में ग्रंथालयों की स्थिति का समीक्षात्मक अध्ययन।	134
डॉ. अरूण प्रकाश पाण्डेय एवं श्रीमती पुष्पा जोशी (उज्जैन,मध्य प्रदेश)	
शिक्षकों में शैक्षिक प्रशासन के प्रति अभिवृत्ति : एक अध्ययन।	139
श्रीमती अंजना शर्रद (भिलाई, छत्तीसगढ़)	

EDITORIAL BOARD

Advisor

Prof. Yagyavrat Srivastava

Infront of Allahabad Bank, Kumhari, Distt. Raipur (C.G.) Mob: 9584506675

Chief Editor

Dr. B.V.Ramana Rao

Asstt. Professor, Programme Incharge - IGNOU Govt. College of Education (IASE), Bilaspur. (C.G.) Pin. 495001 Mob: 9425548135. e-mail : raobvramana@yahoo.com

Editors of this Issue

Dr. Siddhartha Jain

Principal, D.P.Vipra College of Education Bilaspur. (C.G.) Mob: 9300291564 e-mail : j.siddharth62@gmail.com

Dr. Kshama Tripathi

Asstt. Prof., Govt. College of Education (IASE) Bilaspur. (C.G.) Mob : 9424165555

Cover Page Design <u>Miss. Boney Sharma</u>

EXECUTIVE MEMBERS OF R.O.B.

Dr. Kshama Tripathi. Dr. Siddhartha Jain Dr. B. V. Ramana Rao Dr. A. K. Poddar Dr. Anita Singh Dr. P.L.Chandrakar Mr. Ulhas V. Ware Mr. Sanjay M. Ayade Ms. Payal Sharma Ms.Akanksha Gupta Dr. Eshmat Jahan Mr. Rajesh Kumar Gouraha President (mob.9424165555) Vice President (mob.9300291564) Secretary (mob.9425548135) Treasurer (mob.9425536474) Member (mob.9827118808) Member (mob.9977048840) Member (mob.9893335015) Member (mob.9425546803) Member (mob.9993250772) Member (mob.8109258257) Member (mob.9893062305) Member (mob.9827402546)

About RESEARCHERS ORGANIZATION, BILASPUR (C.G.) (Regd. 13554/11)



Construction and Standardization ofby Karthigeyan, K. & Dr. Nirmala, K.

EDUSEARCH ISSN : 0976 - 1160 Vol 4. No. 1. April-2013

Construction and Standardization of Second Language Aptitude Test (SLAT)

Karthigeyan, K. * & Dr. Nirmala, K. * *

Abstract

The primary purpose of this study was to develop and standardise a Second Language Aptitude Test (SLAT) for higher secondary level students. The validity of the test was established from experts' opinion on each item and a pilot test was conducted on the initial pool of items to establish a preliminary version of language aptitude test for further refinement and evaluation in the formal study. A Sample consisting of 647 students have participated in the formal study to determine the final make-up of the Second Language Aptitude Test. Test Difficulty Index, Discriminative Power, The Pearson Product Moment Correlation and the Kuder Richardson (K21) statistics were used for establishing the test standards. The results of analysis showed that the SLAT was moderately difficult for the sampled students (average item difficult is 0.54), and the reliability was found to be 0.78 which revealed that the total test has good reliability and validity.

Introduction

Aptitude tests are widely utilised by educationists and psychologists in the process of educational, psychological and vocational decisions about admission and classification of students, placement, guidance, employment and military services. According to Gay (1980), aptitude tests help teachers to test more realistic expectations of students' abilities and facilitate the identification of under achievers. English, though a foreign language is the only language learnt and used by people in all parts of India and it is regarded as second language because of its significance in the field of education. Teachers might want to administer aptitude test to identify students who

have potential to perform well in second language (English) in the present as well as future. It measures a student's overall performance across a wide range of mental capabilities and specialized abilities such as verbal and numerical skills which helps to predict scholastic performance in educational programs. Compared to achievement tests, aptitude tests cover a broader area and look at a wider range of experiences rather than recent learning in a particular school subjects. Bylund and Emanuel, Giallousi, Kirkup, Rita(2010) Atkinson, Richard (2009), Donald (2004), Gertrude (1988), James (1986) have constructed and standardised various aptitude tests for educational and vocational purposes.

Literature review disclosed that there are many definitions of aptitude and aptitude test. Aptitude is defined as natural or innate capacity for a particular performance (Thorndike and Hagen, 1977), inherent or acquired ability for something (World English Dictionary, 1983), the degree of readiness to learn and to perform well in a particular situation or domain(Corno, 2002). Like the same, aptitude test is defined in many ways. Aptitude tests used to predict the success to some degree (Bingham, Freeman, 1965) Aptitude tests are cognitive (intellectual) measures used to predict future performance in some activities such as school learning and other forms of accomplishment (Aiken, 1988; Gronlund, 1981).

Froehick and Benson (1971) revealed that the scholastic aptitude tests can be used for counseling of students regarding vocational opportunities. According to Macklem (1990), aptitude tests have the following qualities:

- They are excellent predictors of future scholastic achievement.
- They provide a profile of strengths and weaknesses.
- They provide ways of comparing a student's performance with that of other students in the same situation.
- They assess differences among individuals.
- They have uncovered hidden talents in some students, thus improving their educational opportunities.

Language Aptitude

Carroll (1959) who created the Modern Language Aptitude Test (MLAT), defined language aptitude as simply an ability or "knack" for learning foreign languages. Virtually everyone has this ability, but some people appear to learn at a faster rate than others. According to Carroll, the purpose of the MLAT was to predict "how well, relative to other individuals, an individual can learn a foreign language in a given amount of time and under given conditions." In other words, language aptitude is an ability that largely determines how quickly and easily an individual will learn a language in a language course or language training program. As is the case for other kinds of aptitude, such as verbal ability and musical abilities, language aptitude is believed to be relatively stable throughout an individual's lifetime.

There are four components of Language Aptitude namely,

- •*Phonetic coding ability* ability to perceive and remember distinct sounds associated with symbols.
- *Grammatical sensitivity* ability to recognize the function of a lexical element in a sentence
- *Rote learning ability* ability to learn and retain associations between words in a new language and their meaning in English
- *Inductive learning ability* ability to infer or induce rules governing the structure of a language.

This study aims to

- construct and validate a Second Language Aptitude Test (SLAT) for higher secondary level students.
- establish the reliability and determine the difficulty level and discrimination power of Second Language Aptitude Test (SLAT).
- standardise a Second Language Aptitude Test (SLAT)

Research questions

Research Questions are framed based on the objectives of the study.

- What is the internal consistency of Second Language Aptitude Test (SLAT)?
- What is the reliability of Second Language Aptitude Test (SLAT)?
- What is the difficult index and discrimination power of Second Language Aptitude Test (SLAT)?

Methodology

An extensive review of literature was first

carried out to reveal the different techniques and limitations in aptitude test construction which shows the way in constructing the Second Language Aptitude Test (SLAT). With respect to the way of response to the test items, it was decided that the multiple-choice items with four options alternative format has been used. As a first step, the initial pool or first draft of the test consisted of 150 multiple choice items grouped into various dimensions such as, Word and Letter Analogies, Group of Word Analogies, Problems Based on Alphabet, Rearranging the Letter, Spotting out the Similar and Dissimilar Word, Jumbled Words, Blood Relationship, Calendar Sequence Test, Synonyms and Antonyms and Spellings and Grammar. Care was taken to assure that the distracters were incorrect but plausible and all the items were expressed clearly and simply with precise meaning and the options were as short as possible. The next step in the construction of a test was establishing the validity.

Establishing the Validity of the test

Validity of the test refers to the appropriateness or truthfulness of a tool which leads to vigorous editing and modification of test items. One of the significant and flexible methods of establishing the validity for aptitude test is content validity or face validity. The test was validated by 63 experts those who are Professors, Lecturers, Teachers of second language and Teacher Educators. The validity of the instrument was obtained by determining the extent to which the evaluators agreed with the test developer on the assignment of the test items to the respective objectives. Some of the experts have given answers to the test items which help the test constructor to verify the accuracy and objectivity of the scoring key. Furthermore English lecturers were asked to check the language of the test items, in terms of item faults, grammatical errors, spelling mistakes and sentence formation. From their opinion and suggestions, some of the irrelevant items in the test are discarded and their comments were used to revise the test items accordingly. Items that were found to have serious flaws, especially the ones where the ratters did not agree with the test developer on assigning them to objectives, were discarded. By the end of the validation process, among the various dimensions Word and Letter Analogies, Problems based on Alphabet, Blood Relationship, Calendar Sequence Test, Spellings and Grammar items were selected. From the percentage analysis items with more than 50 percentage and above have considered as valid items and 75 items were selected which constituted the second draft of the test.

Trial Testing

The second draft of the test was initially administered to 106 learners in class XI (64 boys and 42 girls) and a score of 1 was assigned to each correct option of each item to establish the duration required by the learners to complete the test. The duration for the test was not specified during the administration of the test. Instead, a range of time in which the learners completed the test was determined. The first learner to complete the test took 50 minutes, while the last one took 90 minutes. It was therefore established that for the 75 item test used in the pilot study, the learners required 75 minutes to complete the test. Secondly, the data collected from the first trial study was used to find out whether there were any serious problems with the administration of the test instrument and management of the results.

Establishing the Reliability of the test In determining the reliability of SLAT, the investigator adopted **Split half method** and **Kudar Richardson methods** which

IN	Р	IN	Р	IN	Р	IN	Р	IN	Р	IN	Р	IN	Р	IN	Р
01	10	21*	78	41	38	61	32	81*	72	101*	68	121*	70	141*	60
02	20	22*	78	42	18	62	30	82*	72	102	30	122*	74	142	28
03	24	23*	66	43	20	63	32	83*	54	103	16	123*	78	143	18
04	20	24*	72	44	18	64*	54	84*	58	104*	54	124*	66	144	16
05	24	25*	80	45	22	65*	56	85*	70	105	30	125*	70	145	16
06	10	26	18	46	24	66*	60	86*	74	106	36	126	28	146	24
07	18	27	10	47	22	67	24	87*	74	107*	62	127	32	147*	68
08	26	28	18	48	24	68	28	88*	60	108	22	128	34	148*	66
09*	66	29*	72	49	12	69	38	89*	60	109	26	129	36	149*	58
10*	70	30	24	50	22	70	34	90*	66	110	26	130	34	150	24
11*	66	31	14	51	22	71	34	91*	66	111	28	131	36		
12*	68	32*	76	52	26	72	40	92*	64	112*	50	132	38		
13*	50	33*	66	53	30	73	30	93*	64	113*	50	133	30		
14	42	34*	60	54	32	74	28	94*	68	114*	72	134	36		
15	42	35	16	55	28	75*	80	95*	72	115*	66	135	34		
16*	58	36	16	56	28	76*	68	96*	70	116*	72	136	20		
17	22	37*	66	57	26	77*	76	97*	72	117*	72	137*	56		
18*	78	38*	76	58	24	78*	74	98*	72	118*	76	138*	52		
19*	74	39	70	59	26	79*	72	99*	70	119*	70	139*	40		
20*	76	40*	60	60	32	80*	74	100*	66	120*	72	140*	58		

 Table 1 :

 Percentage Analysis of Test Validation (* = Selected Items P = Percentage)

assisted to determine the internal consistency of the test. Sample of 647 higher secondary school students have participated in the formal study to determine the reliability of the test.

The performance of these students on SLAT were analysed using the **Pearson Product-Moment Coefficient** (to establish reliability for the half length of the test) **Spearman Brown formula** (to establish reliability for the full test) and **Kudar Richardson formula** (K 21) in order to estimate the internal consistency of the Test.

The internal consistency of the Second Language Aptitude Test (SLAT) was found to be reliable with a reliability index of **0.78** which revealed that the SLAT has a good reliability.

Item Analysis Procedure

Item analysis is a process of examining class-wide performance on individual test items widely used to improve the test quality by revising or discarding ineffective items. It helps in the selection of best items to compose the final test form. In analysis of a test, two values are computed, a difficulty level and a discrimination index. In the present study it was done with the responses of 647 students for validation. The difficulty index and discrimination index of each item in the test were obtained in order to determine the value and position of each item in the whole test.

Difficulty Index

Difficulty level of a test is an index of how easy or difficult is the test. The item difficulty statistic is an appropriate choice for aptitude tests when the items are scored dichotomously i.e., correct vs. incorrect. The item difficulty of an item can be determined by calculating the proportion of subjects who answered the item correctly (Nitko, 1996). To obtain the

It

N

index of difficulty (p), the following formula is used P = R / N

P = index of difficulty

- R = the number of students who answered the item correctly
- N = the total number of students who have attended the item

			M	ode	el I	tem	l An	naly	sis	Pro	cedu	re (I	Diffic	culty	Le	vel)				
										St	uden	ts								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	То
0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	15
1	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	15
~		-	-	~	-	1	-	-	-	1	- 1	-		- 1	4	_	-	_	_	

Table 2:

Where,

1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	15
2	1	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	15
3	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	14
4	0	0	1	1	1	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	11
5	1	0	0	0	1	1	1	0	1	1	1	0	1	0	1	1	1	0	0	0	11
6	0	0	0	0	0	0	1	1	0	1	1	1	0	1	0	1	1	0	1	1	10
7	0	0	1	0	0	0	0	1	0	1	0	1	1	0	1	0	1	1	1	0	09
8	0	0	0	1	1	0	1	0	1	0	1	0	1	1	0	0	0	0	1	1	09
9	1	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	0	1	07
10	1	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0	0	06
То	4	2	3	4	5	4	5	6	5	8	7	6	8	7	8	6	6	5	4	4	

	Table 3:												
Di	fficulty	Level of	f 75 Iter	ns (DL	= Difficu	lty Leve	el, * = Sel	ected It	ems)				
Item	DL	Item	DL	Item	DL	Item	DL	Item	DL				
1	0.77	16	0.65*	31	0.36*	46	0.38*	61	0.64*				
2	0.54*	17	0.35*	32	0.36*	47	0.49*	62	0.67*				
3	0.54*	18	0.49*	33	0.69*	48	0.48*	63	0.54*				
4	0.58*	19	0.41*	34	0.69*	49	0.69*	64	0.45*				
5	0.53*	20	0.48*	35	0.78	50	0.67*	65	0.47*				
6	0.65*	21	0.18	36	0.73	51	0.33*	66	0.58*				
7	0.60*	22	0.04	37	0.57*	52	0.56*	67	0.57*				
8	0.61*	23	0.69*	38	0.62*	53	0.68*	68	0.28				
9	0.46*	24	0.56*	39	0.49*	54	0.68*	69	0.40*				
10	0.69*	25	0.30*	40	0.86	55	0.60*	70	0.60*				
11	0.69*	26	0.77	41	0.59*	56	0.68*	71	0.74				
12	0.46*	27	0.49*	42	0.43*	57	0.69*	72	0.52*				
13	0.59*	28	0.85	43	0.54*	58	0.61*	73	0.60*				
14	0.57*	29	0.66*	44	0.60*	59	0.57*	74	0.55*				
15	0.64*	30	0.57*	45	0.56*	60	0.38*	75	0.28				

Table 3:

From the above table as an example, assume that 20 students take a test. Consider the fourth item for which 11 students answered the item correctly. The item difficulty level can be calculated by the number of pupils who answered the item correctly and the number of pupils who attended the test respectively. The difficulty level of the item in the above example can be calculated as follows:

P = 11 / 20, & P = 0.55Thus the difficulty level of the item 4 in the above example is **0.55**. Based on this procedure the difficulty level of each item was calculated and the values are given in the table 3.

Discrimination Index

The item discrimination index (d) is a measure of the effectiveness of an item in discriminating between high and low scorers on the whole test. The discrimination index of each item was obtained by subtracting the proportion of low scorers who answered the question correctly, from the proportion of high scorers who answered the question correctly (**Trochium**, **1999**). A good discrimination item is one where a bigger proportion of the high scorers selected the correct option than the low scorers. If value of the discrimination index is higher, then the item is more effective. The itemdiscrimination index (d) is calculated by dividing the test takers into three groups according to their scores on the test as a whole: an upper group consisting of the 27% who make the highest scores, a lower group consisting of the 27% who make the lowest scores, and a middle group consisting of the remaining 46%. The following formula is used to determine the discrimination index of the items.

$$D = (R_{H} - R_{I}) / N/2,$$

Where,

D = item discrimination index.

 $R_{\rm H}$ = number of students from the high scoring group who answered the item correctly.

 R_L = number of students from the low scoring group who answered the item correctly.

N/2 = one half of the total number of pupils included in the item analysis.

The steps involved in calculating the discrimination index are as follows

 Table 4:

 Model Item Analysis Procedure (Discrimination Index)

		STUDENTS																			
		Н	lighe	er Gr	oup				Mid	ldle	Gro	oup				Low	/er (Grou	p		
Item	10	13	15	11	14	8	12	16	17	5	7	9	18	1	4	6	19	20	3	2	То
1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	0	0	1	15
2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	0	0	15
3	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	0	0	1	0	14
4	1	1	1	1	1	0	1	1	0	1	0	0	0	0	1	0	0	1	1	0	11
5	1	1	1	1	0	0	0	1	1	1	1	1	0	1	0	1	0	0	0	0	11
6	1	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	1	1	0	0	10
7	1	1	1	0	0	1	1	0	1	0	0	0	1	0	0	0	1	0	1	0	09
8	0	1	0	1	1	0	0	0	0	1	1	1	0	0	1	0	1	1	0	0	09
9	1	0	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	07
10	0	1	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	06
Total	8	8	8	7	7	6	6	6	6	5	5	5	5	4	4	4	4	4	3	2	

Item	DI								
1	0.35*	16	0.51*	31	0.44*	46	0.47*	61	0.30*
2	0.60*	17	0.39*	32	0.36*	47	0.28	62	0.30*
3	0.25	18	0.35*	33	0.21	48	0.37*	63	0.28
4	0.74*	19	0.30*	34	0.45*	49	0.47*	64	0.63*
5	0.29	20	0.34*	35	0.24	50	0.29	65	0.42*
6	0.25	21	-0.14	36	0.36*	51	0.53*	66	0.26
7	0.35*	22	0.00	37	0.35*	52	0.29	67	0.30*
8	0.40*	23	0.34*	38	0.37*	53	0.47*	68	0.20
9	0.53*	24	0.31*	39	0.50*	54	0.43*	69	0.70*
10	0.44*	25	0.31*	40	0.12	55	0.37*	70	0.28
11	0.50*	26	0.01	41	0.32*	56	0.37*	71	0.34*
12	0.51*	27	0.38*	42	0.34*	57	0.03	72	0.29
13	0.44*	28	0.06	43	0.56*	58	0.38*	73	0.26
14	0.50*	29	0.13	44	0.26	59	0.31*	74	0.29
15	0.34*	30	0.33*	45	0.40*	60	0.66*	75	0.13

 Table - 5

 Discrimination Index of 75 Items (D I= Discrimination Index *= Selected Items)

- The total scores obtained by all the respondents on the test were arranged in descending order.
- The higher group of 27% scores (6 students) with high scores and the lower group of 27% scores (6 students) with low scores were selected. The rest of the scores form the middle group.
- For each item the number of students in the higher and lower group who have selected the right answer were tabulated.

From the above table, as an example consider the item 4 in which four students in the higher group and two students in the lower group pass the item. The discrimination index can be obtained by subtracting the proportion of low scorers who answered the question correctly, from the proportion of high scorers who answered the question correctly. The discrimination index of the item in the above example can be calculated as follows:

D= (5-3) / 6 ; D= 0.33

Thus the discrimination index of the item 4 in the above example is **0.33**.

The seventy five items in the second draft of the test was scored based on the above mentioned procedure. The discrimination index of each item was calculated and the values are given in the table below.

The Final form of Second Language Aptitude Test (SLAT)

Item analysis for all the tests were carried out and 48 items with difficulty index ranging from 0.30 to 0.70 and discrimination index 0.30 and above were selected for the final test. Those Forty Eight (48) items constitute the final form of the test. The selected 48 items with their corresponding difficulty level and discrimination index are given in the table below. The difficulty level and discrimination index of items which constitute the final form of the test are grouped into three categories.

The present study aims to construct and validate a second language aptitude test (SLAT) for higher secondary school Table 6:

Difficulty Level and Discrimination Index of Final Form of Second Language Aptitude Test (DL - Difficulty Level ; DI - Discrimination Index)

Item	DL	DI	Item	D L	DI	Item	DL	DI
1	.54	.60	17	.69	.34	33	.48	.37
2	.58	.74	18	.56	.31	34	.69	.47
3	.60	.35	19	.30	.31	35	.33	.53
4	.61	.40	20	.49	.38	36	.68	.47
5	.46	.53	21	.57	.33	37	.68	.43
6	.69	.44	22	.36	.44	38	.66	.37
7	.69	.50	23	.36	.36	39	.68	.37
8	.46	.51	24	.69	.45	40	.61	.38
9	.59	.44	25	.57	.35	41	.57	.31
10	.57	.50	26	.62	.37	42	.38	.66
11	.64	.34	27	.49	.50	43	.64	.30
12	.65	.51	28	.59	.32	44	.67	.30
13	.35	.39	29	.43	.34	45	.45	.63
14	.49	.35	30	.54	.56	46	.47	.42
15	.41	.30	31	.56	.40	47	.57	.30
16	.48	.34	32	.38	.47	48	.40	.70

Difficulty Leve	e 1	Discrimination I	ndex
Easy Items	17	Excellent Items	13
Average Items	24	Good Items	11
Difficult Items	07	Average Items	24
Total Items	48	Total Items	48

Graph 1 Difficulty Index of Selected Items



Graph 2 Discrimination Index of Selected Items



students as a psychological instrument to assist in students educational and vocational decisions, about admission and classification of students, placement, guidance and employment. The finding of the present study reveals that Second Language Aptitude Test (SLAT) test items constructed and validated have internal consistency of 0.78. The average discriminative and difficulty index of SLAT were found to be 0.43and 0.54 respectively which attests to validity of the instrument in line with **Robert Gregory** (1988) assertion that good item difficulty fall within the range of 0.3 to 0.7.

This also revealed the fact that the present instrument has both validity and reliability which suggests the fact that the instrument is reliable. It could be adopted and adapted in higher secondary schools in other parts of the state. Therefore the present instrument is relevant and applicable to Higher Secondary School students in the state. Language Aptitude is one of the key factors on student's performance in school. A student who does not do well in SLAT may be given some other types of aptitude tests that will predict their future learning and capability. Teachers, educationists and researchers should concentrate more efforts on factors that could improve students' second language aptitude. Students' positive attitude towards second language and interest leads to improve their language aptitude. Teachers should motivate, stimulate the interest of students to improve their attitude and language aptitude.

REFERENCES

- Aiken, L. R. (1988): Psychological Testing and Assessment. Boston: Allyn and Bacon Inc.
- Anastasi, Anne. (1984): Psychological Testing. New Delhi: Prentice Hall of India Pvt Limited.
- Bylund, Emanuel. (2010): The Role of Language Aptitude in First Language Attrition: The Case of Pre-Pubescent Attriters. Applied Linguistics, 31(3) 443-464.
- Carroll, J.B. (1961): Fundamental Considerations in Testing for English Language Proficiency of Foreign Students. New York: McGraw-Hill Hook Company.
- Frank, S. Freeman. (1965): Theory and Practice of Psychological Testing, New Delhi: Oxford and IBH Publishing Pvt Limited.
- Giallousi, Maria. (2010): Development, Validation, and Use of a Greek-Language Questionnaire for Assessing Learning Environments in Grade 10 Chemistry Classes, International Journal of Science and Mathematics Education, 8(4) 761-781.
- Gay, L. R. (1980): Educational Evaluation and Measurement. Ohio: Meri Publi. Co.
- Kirkup, Catherine. (2010): Use of an Aptitude Test in University Entrance -A Validity Study. National Foundation for Educational Research.
- Macklem, Gayle L. (1990): Measuring aptitude. Practical Assessment, Research and Evaluation, 2(5).
- McBride, James. (1986): A Computerized Adaptive Edition of the Differential Aptitude Tests, Journal of Personality Assessment, 5,145-160.
- Milovanov, Riia. (2010): Foreign Language Pronunciation Skills and Musical Aptitude: A Study of Finnish Adults with Higher Education, Learning and Individual Differences, 20(1) 56-60.
- Muro, Gertrude. (1988): Language Aptitude Test (LAT) English for Special Purposes. AEDS Journal, 6(2) 78-91.
- Robert J. Gregory. (2005): Psychological Testing- History, Principles and Applications. Singapore: Pearson Education Publishers.
- Thorndike, R. L., Hagen, E. P. (1977): Measurements and Evaluation in Psychology and Education. New York: John Wiley and Sons.

SECOND LANGUAGE APTITUDE TEST (SLAT)

Please fill in the following information

Name of the Student	·····
Gender	: Male / Female, ClassAge : years
Name of the School	•
Type of School	: Government / Government Aided / Private

Instruction

Dear students,

This test booklet consisted of multiple choice items which have four alternative answers A, B, C, D. Please read out the items carefully and select the most appropriate answer out of the four alternatives by putting a tick mark on the appropriate option.

1.	PIT, SIT, BIT, SE	T - Find	out the odd w	ord.
	a) PIT b) S	SIT	c) BIT	d) SET
2.	Cow: Mammal,	Crocod	ile :	••
	a) avis b) i	mammal	c) bird	d) reptile
3.	ABC: ZYX, CE	BA:		
	a) BCA b) 2	ZYX	c) XZY	d) XYZ
4.	POT : TOP, P	[T:	••••	
	a) TIP b) F	TO	c) PTI	d) POI
5.	i) Father: Mother	r		ii) Brother: Sister
	iii) Son : Daught	ter		iv) Uncle : Grandfather -
	Find out the unsu	uitable pair	r.	·
	a) i b)	ii	c) iii	d) iv
6.	Which letter app	ear in ' <i>TA</i>	BLE' and not	appear in ' <i>TALE</i> ?
	a) T b) E	3	c) E	d) L
7.	Rearrange the le	tters: MU'	ГНО	
	a) MOTHU b) M	IOUTH	c) OUTHM	d) THOMU
8.	What is the tent	h letter in	English alpha	abet from Z ?
	a) P b) M		c) Q	d) L
9.	Newspaper: Press	s and	Cloth :	
	a) School b) H	Hospital	c) Lab	d) Mill
10.	DRIVE : EVIRD,	LORRY:.		
	a)YRROL b) R	ORLY	c) LOYRR	d) ORRYL
11.	O R G			
	a) FET b) M	IN I	c) M N A	d) G O S
12.	AZ, BY, CX,			
	a) EF b) YE	3	c) XA	d) DW
13.	Brother's son is		•	
1.4	a) cousin b) br	other	c) nephew	d) brother in law
14.	Sister's daughter	h) aister	•	d) output
	aj sister ili law	b) sister	cj mece	uj aunty

15.	i) force	ii) course	iii) horse	iv) resour	ce - Find out the odd word
	a) (i)	b) (ii)	c) (iii)	d) i	V
16.	A, D, G, J	,			
	a) M	b) O	c) N	d)) K
17.	He was _	late.			
	a) to	b) too	c) two	o d	l) more
18.	It is rain	ing			
	a) heavily	b) well	c) slo	wly c	1) fast
19.	ACE, F	нк, кмо	, T V X - Fi	nd out the	odd man out.
	a) ACE	b) FHK	c) KM	0 d	I) TVW
20.	BCD, KN	IN, QRS, C	HI - Find o	at the dissin	milar group of letters.
	a) BCD	b) KMN	c)QRS	S c	1) GHI
21.	i) eye bro	w ii) eye lid	iii) eyes	iv) cheek	• Find out the odd word.
	a) iv	b) iii	c) ii	d	l) i
22.	Chennai,	Delhi, Mad	urai, Salei	n Find o	ut the odd word.
	a) Delhi	b) Saler	n c) C	hennai d	l) none
23.	Birds: Fly	, Snake:			
	a) hole	b) timic	l c) cr	awl d) jump
24.	So	1. – Fill up t	he missing	letters	
	a) c h o	b) c h l	c) n	not d) mon
25.	Dark :	Black :	White		,
	a) darknes	s b) night	c) g	rev d) bright
26.	'Car' wor	ks with ' <i>petro</i>	and 'T	" works wit	th
	a) light	b) chant	nel c)s	witch d) electricity
27.	<i>'0il'</i> is us	ed in <i>'lamp</i> ' i	n the same	way 'Wax	' is used in
	a) candle	b) bulb	c) 1a	antern d) switch
28.	Education	ı - Teacher :	Treatmen	nt-	?
	a) Doctor	b) Hospi	al c)	Clinic d) Medicine
29	Walk, Ru	n. Move.	.ua 0)	umic a	, modicilie
-27.	a) Stand	h) sit	 	a d	1) stav
30	Sea Rive	r Lake	C) S		i stay
00.	a) pond	b) mount	$\frac{1}{2}$	in d	pound
21	Find out	the dissimilar	ann cjia	orde) pound
51.	(i) block	mbito (ii) in	group or w	high low	(im) day , ann
	(I) DIACK .			ingn .iow,	(iv) day . Sun
20	aj i March	Juna Santa	mhor	U	I) IV
34.	March,	b) Jopus			December
22			iy Ciw	eek uj	N December
33.					
	a) I	D) K	C) IV.		
34.	Which let	ter comes in	' BOARD' ai	nd not in 'F	ROAD'
	a) D	b) O	c) B	d	l) A
35.	Glove: bal	11,	•••••		
	a) Hook : l	Fish b) Winter	: Weather	c) Stadium	: Seats d) Books : Bag
36.	School, C	College, Spor	ts , Univers	ity - Find	out the dissimilar word
	a) school	b) college	c) u	niversity	d) Sports
37.	The peop	le of India	•	-	
	a) Indian	h) India		Hindu (d) Hindustan
	aj mulan	oj mula	Cj I	iniuu (aj minustan

12		EDUSEAR	CH - ISSN : 0976	6 - 1160 Vol. 4 No. 1 Apr. 2013
38.	The people of	f Greece		
	a) Greecian	b) Greeks	c) Greece	d) Gracian
39.	PART : TRAP,	POTS:		
	a) TOPS	b) OPTS	c) STOP	d) SPOT
	Read the follo	wing sentences a	and answer th	e questions from 40 - 44.
	A and B are p	arents. C is the se	on of A and B .	. A is the father of D and D
	is the sister of	C .		
40.	Who is father	of C ?		
	a) A	b) B	c) C	d) D
41.	How many m	ale members ar	e there in the	e group?
	a) one	b) two	c) three	d) none
42.	Who is B's da	aughter ?		
	a) C	b) A	c) B	d) D
43.	D is C's			
	a) father	b) mother	c) sister	d) brother
44.	How many fer	male members ar	e there in the	group?
	a) one	b) two	c) three	d) none
45.	If 342 stan	ds for EAT and	642 for MA	A T, 2 3 4 6 stands for
	а) Т Е А М	b) M E E T	с) МЕАТ	d) None
46.	If March 6 is	Sunday, March 1	.3 th is	_
	a) Saturday	b) Sunday	c) Monday	d) Friday
47.	Child is related	d to Parent. In the	e same way Bo	ok is related to
	a) Printer	b) library	c) writer	d) booklet

* Mr. Karthigeyan, K.: Research Scholar, Dept. of Education, Priyar University. Salem. Tamilnadu e-mail id: krishkarthi1983@gmail.com ** Dr. Nirmala, K. : Prof. & Head, Dept. of Education, Priyar University. Salem. Tamilnadu. e-mail id: knirmalapu@gmail.com

-----XXX------

Designing and Developing an Instrument forby Mrs. R. Porthia



Designing and Developing an Instrument for Assessing Frustration - Tolerance of Student Teachers

Mrs. R. Porthia *

Abstract

A lot has said about the psychosocial changes, especially the one-Frustration-Tolerance which is crucial for manifesting a normal human behaviour, that have come upon children, adolescents and young adults. Good number of researchers has studied frustration tolerance of students of different by structuring their own data collecting instruments. However researcher has developed the present tool for measuring frustration tolerance of student teachers by deriving scores from the degree of managing psycho-socio reactions such as Stress, Anxiety, Embrassment, Anger, Emotional-Pain caused by frustrating situation confronted by them in colleges of education.

Introduction

Colleges of Education offer one year B.Ed course to graduates and post graduates for teaching at secondary, higher secondary levels. Since teaching has not yet attracted by the cream among graduates, mostly the moderate achievers opt for doing the B.Ed course of study. Moreover the graduates belonging to middle class and lower middle class show more interest in becoming teachers than their counter parts. Therefore the students getting enrolled in colleges of education have to strive a lot to meet the intellectual, emotional and financial demands of the B.Ed degree course. They are affected a lot in colleges of education or at the mercy of others in fighting against the confronting frustrating situations.

Rationale

Frustration is a never ending emotional process in the life of an individual from birth to death. The child lifts up his eyes hoping to receive a toffee kept in your pocket, but when the wish not gratified either he starts fretting or fall silent emitting the bitter feeling of frustration through all visible organs of his body. In the case of an adolescent, while eyeing for a beautiful thing, if told not possible for him, he seems to lose all curiosity of life or turn to be an agent of destruction. Somehow all individuals have to face frustration in one form or the other in several circumstances almost in all days. It is universally accepted that frustration has always been inevitable in human life. Freud (1933) was the first who established causal relationship between

frustration and behaviour disorders and many others have focused the importance of frustration towards constructive side. Feeling of frustration is also aroused when things don't workout as planned (*Goodale*, 1978). *Manani* and *Saxena* have stated that frustration occurs whenever the organism meets an insurmountable obstacle or obstruction in the route to the satisfaction of any vital need.

Therefore what is needed for an individual is the mental disposition to face the frustrating situations successfully so as to put up a normal behaviour needed for realising the life goals. The tolerance manifested by the individuals at the time of frustration is termed as frustration tolerance. According to Rosenzweig (1944) frustration tolerance increases with maturation. Rao and Ramalingaswamy (1974; Malvia (1977); Feiring and Lewis (1979) and many others have found that age has a significant effect on frustration tolerance. A person who is going cheerful, healthy and social has a greater degree of frustration tolerance. Many investigators such as Mc. Cord et. al. (1961); Nancy (1987); Agarwal and Venna (1987); Pareek (1988), etc. have found that frustration tolerance varies from culture to culture.

A practicing child and adolescence psychiatrist, Marilin, B Benoit (2005) for the past twenty five years has reported a disturbing trend in children and adolescence with regard to frustration tolerance. The problem emerging in children and adolescence, according to him is one of decreasing frustration tolerance. In lay language it is understood as "Lack of patience" contradictory to the maxim of yester years, "patience is virtue". According to psychiatrists frustration tolerance is an ego strength that human beings need in order to make a successful adaptation to life. While the new born is entitled to have all its needs met promptly and unconditionally the developing child is expected to gradually learn to delay gratification as he must wait for the parent to produce food, soothe aching gums, play a game, etc., The exponential technological advancement of recent years have afforded the possibility of young children to achieve instant gratification at the touch of the button.

The emerging mantra of this technological era is 'wait no more'. What has ensured is the experience of impatience (poor frustration tolerance) when the response does not come in the anticipated brief turnaround time.

Therefore it may be concluded that the play of technology in modern homes has provided a life time to the present generation which is noted for his instant granting of all what are wished for. Such a mental disposition leads to the development of intolerance towards frustration caused by the delay in getting the expected ones or by failure in realizing the set goals.

Frustration tolerance is the ability of a person on a task when frustration occurs due to set backs and difficulties (Spacapan and Cohen, 1983; Motowidlo et. al., 1986; Martimportugues-Goyenechea and Gomez-Jacinto, 2005; Zhang, 2006). Excellent frustration tolerance is necessary for one to be mentally healthy (Costa and Mc.Crae, 1993; Brackney and Karabenick, 1995; Kitzrow, 2003; Sun, 2008; Dai, 2009). Most of the psychological problems are caused by the gap between reality and ideal. It has been demonstrated that the frustration tolerance of college students is generally low and research on methods of improving frustration tolerance is rare (Gerra et. al., 1993; Liu and Zhang, 2007; Yan, 2009).

The researcher being a faculty in a college of education has understood the need for a tool in the context of teacher preparation, and collected information to know about the nature of frustration tolerance, its constituents and its impact behaviours of the individuals.

Design of the Research Tool

Based on these the researcher has worked out a design to develop a suitable instrument for assessing the frustration tolerance of student teachers as follows

- 1.As the frustration tolerance of student teachers can be from different sources, it is thought of an ideal one to have a SCALE incorporating all the categories of frustration causing situations.
- 2.It is planned to peruse the literature on frustration tolerance to pick out it important manifestation.
- 3.For each category of frustration tolerance it is decided to identify the minor components which are stated to be the constituents of respective categories.
- 4.For each minor component coming under the major category it is planned to identify the possible mode of frustration tolerance and present them in the form of statements.
- 5.The statements have to be worded in such a way for each one the respondents could mark one out of the five alternatives: Strongly Agree; Mildly Agree; Agree and Disagree; Mildly Disagree and Strongly Disagree.
- 6.After compiling the needed statements for each category The Draft Tool is to be formed.
- 7. The prepared Draft Tool is to be subjected to a pilot study to eliminate the statements which are not valid. For this the following process is to be adopted:
- a)As the preliminary step the Draft Tool is to be administered to hundred respondents chosen randomly from the target population
- b)For establishing content validity the chosen items have to be scrutinized by the experts.
- c)The suitability of each item is to be established by applying The Goodness of Fit Test.

- on the intellectual, emotional and social d)After eliminating the items which fail in the goodness of fit test the Construct Validity is to be established by computing Item-Total correlation.
 - e)Finally the data has to be subjected to Factor Analysis for identifying the components and factorial validity of each statement.
 - f)Then the Final Form of the tool has to be prepared.
 - g)The second pilot study is to be conducted to establish the Test-Retest reliability.

Developing the Draft Tool

After the perusal of literature the researcher has identified three major areas manifesting frustration tolerance of student teachers of different categories. They are (i). Action Orientation, (ii). Mission Challenge, (iii). Emotional Feelings (Li-Qin Yao, 2010).

On further probing the researcher has identified the following categories manifesting frustration tolerance: Robinowitz, Stanly, Melamed, Feiner Riback and so many others (1996) have agreed to the report of Britt SA and Janus S Q (1940) about the manifestation of frustration of individuals as detailed below. Aggression: Withdrawal; Regression; Anger; Guilt and Remorse; and Shame and Embarrassment.

Similarly Kalpana Kohli and G. S. Bajbai (2006) have reported the psychological outcomes / consequences of frustration tolerance as: Dissatisfaction; Low Job Involvement: Tension: Anxiety: Depression: Boredom; Deprivation; Low Self Esteem and Psychological Fatigue.

Therefore the researcher has inferred that the prevalence of low frustration tolerance may be the cause for manifestation of behaviour characteristics identified by *Robinwitz* and others (1996) in individuals. Similar is the case with the factors reported by Kalpana Kohli and G.S. Bajbai (2006) in individuals of low frustration tolerance. Therefore the

researcher has concluded that intensity of frustration tolerance may be gauged from the degree of managing the reactions of frustration. That is lower the management of these psychosocial reactions the lower would be the frustration tolerance and vice versa. It follows then that by assessing the management of the following psychosocio reactions one may arrive at a measure of one's level of frustration tolerance.

- 1. Stress / Anxiety
- 2. Embarrassment
- 3. Anger
- 4. Emotional Pain

These four categories of psycho socio outcomes of frustration are taken as the major behavioural aspects requiring proper management to put up a normal behaviours.

Preparation of Items

After identifying the components for each one of the major behavioural aspects the researcher prepared statements based on each component to be included as the test item in the proposed Scale. The following are the number of items prepared for each component to be answered by the subjects in a five point scale to be rated as Strongly Agree, Mildly Agree, Agree and Disagree, Mildly Disagree and Strongly Disagree:

Pilot Study

In different phases the researcher established the validity of the newly developed research tool.

Phase - I: Content Validity:

The process of validation started with phase I. Copies of the draft tool were provided to three experts guiding doctoral studies in education in different universities with a request to study the appropriateness of the statements prepared and offer suggestions for alternations and modification for improvement.

Based on the suggestions given by the

Category	Component	No. of
		Items
Stress /	Physical and mental	
Anxiety	strain	4
	Social issues	4
	Personal limitations	4
D 1		
Embarra	External constraints	4
ssment	Skill based	5
	problems	
	Comparative	5
	estimation	
Anger	Work overload	4
	Treatment of	4
	superiors	
	Achieving goals	4
	thrust	
Emotio	Cooperation	6
nal Pain	Compliance to rules	3
	®ulations	
	Corrections and	3
	modifications	-
	Total	50
1		1

experts the draft tool has been recast. Therefore it may be stated that the prepared tool has got content validity.

Phase – II: Item Validity:

To establish the suitability of the items statistically, the modified draft tool was administered to one hundred student teachers randomly chosen from colleges of education in Tirunelveli. After scoring the responses of the respondents, the fitness of each item has been established by subjecting the data to Goodness of Fit test.

The table given below furnishes the Goodness of Fit value for each one of the fifty items and also the details about the items retained and the items rejected.Out of **50** statements **ten** have been deleted on the basis of Goodness of Fit value.

Phase - III: Construct Validity:

After deleting items which are not fit enough to be included, the draft tool

Goodness of Fit value								
Item	Goodness	Table	Remark	Item No.	Goodness	Table	Remark	
No.	Fit Value	Value		No.	Fit Value	Value		
		at .05				at. 0.05		
1	63.7	9.49	Retained	26	70	9.49	Retained	
2	3.4	9.49	Rejected*	27	5	9.49	Rejected*	
3	75.9	9.49	Retained	28	73.9	9.49	Retained	
4	29.6	9.49	Retained	29	114.4	9.49	Retained	
5	51.9	9.49	Retained	30	75.2	9.49	Retained	
6	6.7	9.49	Rejected*	31	88.35	9.49	Retained	
7	82.4	9.49	Retained	32	38.9	9.49	Retained	
8	116.25	9.49	Retained	33	22.7	9.49	Retained	
9	31.7	9.49	Retained	34	126.75	9.49	Retained	
10	6.8	9.49	Rejected*	35	51.2	9.49	Retained	
11	24.2	9.49	Retained	36	211.3	9.49	Retained	
12	18.2	9.49	Retained	37	169.9	9.49	Retained	
13	6.3	9.49	Rejected*	38	3.4	9.49	Rejected*	
14	4.1	9.49	Rejected*	39	120.5	9.49	Retained	
15	29.8	9.49	Retained	40	71.5	9.49	Retained	
16	85	9.49	Retained	41	158.3	9.49	Retained	
17	105.9	9.49	Retained	42	4.1	9.49	Rejected*	
18	76.55	9.49	Retained	43	82.8	9.49	Retained	
19	4.10	9.49	Rejected*	44	95.85	9.49	Retained	
20	5.00	9.49	Rejected*	45	17.9	9.49	Retained	
21	56	9.49	Retained	46	51.8	9.49	Retained	
22	134.6	9.49	Retained	47	13.4	9.49	Retained	
23	123.35	9.49	Retained	48	51.5	9.49	Retained	
24	74.6	9.49	Retained	49	13.7	9.49	Retained	
25	74.5	9.49	Retained	50	33.35	9.49	Retained	

Table – 1

* - items rejected

Table – 2 Item-total correlation

Item	r Value								
No.		No.		No.		No.			
1	0.206	11	0.406	21	0.822	31	0.234		
2	0.595	12	0.764	22	0.547	32	0.326		
3	0.803	13	0.734	23	0.505	33	0.531		
4	0.759	14	0.624	24	0.082*	34	0.341		
5	0.722	15	0.201	25	0.721	35	0.264		
6	0.751	16	0.585	26	0.631	36	0.026*		
7	0.075*	17	0.484	27	0.637	37	0.834		
8	0.216	18	0.342	28	0.345	38	0.298		
9	0.704	19	0.473	29	0.394	39	0.692		
10	0.663	20	0.873	30	0.527	40	0.683		

* indicates the items deleted

Item	Initial	Extraction	Item	Initial	Extraction	Item	Initial	Extraction
No.			No.			No.		
1	1	0.759	14	1	0.698	27	1	0.656
2	1	0.704	15	1	0.746	28	1	0.782
3	1	0.689	16	1	0.732	29	1	0.666
4	1	0.685	17	1	0.649	30	1	0.731
5	1	0.665	18	1	0.754	31	1	0.624
6	1	0.617	19	1	0.651	32	1	0.612
7	1	0.670	20	1	0.749	33	1	0.651
8	1	0.619	21	1	0.708	34	1	0.748
9	1	0.589	22	1	0.737	35	1	0.767
10	1	0.807	23	1	0.621	36	1	0.715
11	1	0.761	24	1	0.738	37	1	0.626
12	1	0.735	25	1	0.682			
13	1	0.676	26	1	0.650			

Table – 3 **Extracted Communality values**

Table – 4 **Item - Distribution under Thirteen Factors**

Sr.		Components											
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1	11	4	6	14	8	16	15	5	3	2	20	12
2	9	23	13	10	25	28	35	19	17	7	26	24	27
3	29	33	31	18	32			30	22	21			34
4		36											
5		37											
6													
7													

consists of only **forty** items. Then using by factor analysis. The partially validated the tabulated data the item-total correlation was computed for each item to establish the construct validity of the newly formed tool. The table given below gives the item total correlation for all the **forty** items.

From the table it may be seen that three of the items showing insignificant correlation are deleted, thus making the tool with only **thirty seven** items.

Phase – IV: Factorial Validity

Finally the researcher has decided to make the process of validation complete draft tool was again administered to three hundred subjects chosen by random from ten districts randomly taken in Tamilnadu. The tabulated data were used for factor analysis.

The process of factor analysis started with the extraction of communality values for all the thirty seven items furnished in the table given below. It may be observed that the all the **thirty seven** items have recorded more than 0.621 proving the suitability for inclusion.

The further analysis to explain the total

Factors of Fi	ustiati	ion rolerance
Name of the	No. of	Factors
Components	Items	Identified
Physical and	3	Managing
Mental Strain		Stress /
Social Issues	3	Anxiety
Personal		•
Limitations	3	
External		
Constrains	2	Managing
Skill based		Embarrassment
Problems	5	
Comparative		
Estimation	3	
Work Overload	3	Managing
Treatments of		Anger
Superiors	3	0
Achieving Goals	3	
Thrust	3	Managing
Seeking Help	2	Emotional
Availing	2	Pain
Cooperation	2	
	I I	

variance of each component by initial Eigean value shows that the first four components explain variants ranging from 5.168 to 14.644. Moreover extraction sums of squared loadings also explain that the first thirteen components account for 69.291 of the composite score value. The contribution of all the 14 remaining components seems to be so negligible and insignificant that they are not to be considered as contributing factors. Therefore for these thirteen components which are to be treated as factors, the contribution of each item has been computed by principal components analysis using Varimax with Kaiser Normalization generating component matrix and rotated components matrix

Thus using the matrices the items have been reorganized under the emerging thirteen factors on the basis of the factor loadings. The following table gives the details of the items grouped under the factors.

The table No. 4 shows that all the thirty seven items have been distributed under thirteen components causing frustration. All those items have been worded in such a way that the response of the respondents on a five point scale would reveal the degree of their management of concerned frustration, thereby giving the score for the tolerance of frustration.

The table given below gives the nomenclature of these components, their corresponding number of test items and the factors of frustration tolerance.

Pilot Study II – Reliability

The reliability coefficients of the tool has been established by test and retest method. The computed reliability coefficient 0.83 shows that the tool is highly reliable.

Thus the factorial validity of the tool has been established.

REFERENCES

- Clifford, M M (1988). Failure Tolerance and Academic Risk taking in Ten to Twele Year Old Students, Brit. Journal of Educational Psychology, 58; 15 – 27.
- Harrington, N (2005.A). The frustration Discomfort Scale: Development and Psychometric Properties. Clinical Psychology and Psychotherapy, 12, 374387.
- Kalpana Kohli and G.S. Bajbai (2006). A Comparative Study of Frustration, Depression and Deprivation among Trainee and Serving Police Officials, Indian Journal of Criminology and Criminalistics, Vol. XXVII, No. 3.
- Li Qin, Yao (2010). Effect of Different Stress Stimulation on Frustration Tolerance of Female College Students with different Temperaments, African Journal of Business Management, Vol. 4 (13), 2790 – 2795.
- Marilyn B. Benoit (2005). The Dotcom Kids and the Deices of Frustration Tolerance :<http://www.alliancefor_childhood/dot.com_kids.htm>

Table – 5 Factors of Frustration Tolerance

Assessing Frustration- Tolerance of Student Teachers

<u>Please fill in the following information</u>

Name of the Student	Teacher
Gender	: Male / Female, ClassAge : years
Name of the College	·
Type of College	: Government / Government Aided / Private

<u>Instruction</u>

Dear student teacher,

This test booklet consisted 37 items. Read out all the statements and respond by putting a tick mark on the appropriate option viz, Strongly Agree, Moderately Agree, Undecided, Moderately Disagree and Strongly Disagree.

Sr.	Statements	SA	MA	UD	MD	SD
1	I have to prepare lot of teaching AIDS. It causes much					
	stress. However without minding the stress I involve					
	myself in the preparation of teaching AIDS					
2	Whenever I fail to pay the fees to the institution in time I					
	get upset and worried.					
3	Often I am caught for late coming or absence. The					
	frustration due to my inability to be punctual makes me					
	highly anxious.					
4	Often I am not able to control the class while teaching.					
5	I am poor in time management in taking class. Therefore					
	I experience lot of stress in the classroom.					
6	Disobedience of students in the class is a cause of anxiety					
	to me.					
7	I am very anxious to meet and interact with my guide					
	teachers and the head master.					
8	Whatever the unpleasant happenings occur in the class					
	I remain cool and calm.					
9	When my memory fails to recollect the facts and figures					
	aptly I become highly nervous and unable to continue					
	my teaching.					
10	I am not able to attend to my basic needs (ex. Taking					
	lunch) at times due to unexpected instruction to complete					
	certain works. Such things irritates me badly.					
11	While coming hurriedly to college if my vehicle / bus					
	breaks down in the middle I feel upset and remain irritated					
	throughout the day.					
12	If any of the students become unruly in the class I become					
	nervous and unable to continue my teaching.					
13	Whenever my senior teachers point out certain mistakes					
	in my teaching I don't feel much worried, because most					
	of my co-trainees face same problem while teaching.					

Designing and Developing an Instrument forby Mrs. R. Porthia

Sr.	Statements	SA	MA	UD	MD	SD
14	Even a small mistake committed during teaching haunts					
	me like anything and I become highly frustrated.					
15	I take even the negative remarks given by my co-trainees					
	quite positively and remain undisturbed.					
16	When I am criticized in the class for not doing something					
	as instructed I feel badly irritated.					
17	When the head of the institution announces any change					
	in the work schedule unexpectedly for the day I feel much					
	disturbed.					
18	Though I suffer a lot to discharged assigned duties and					
	responsibilities in the college, I don't take it a trouble.					
19	It is really difficult to pay for some programmes in the					
	middle of the course. However manage such situation					
	somehow without getting frustrated.					
20	Lack of time and resources to fulfill the expectations of					
	the institution angers me greatly.					
21	The rigorous work schedule prepared for the academic					
	year is a cause for the explosion of my feelings.					
22	Commutation to college is a big headache to me. However					
	I manage th situations by taking all precautionary steps.					
23	My inability to attend to the needs of the individual					
	students so upsetting that I cannot avoid getting angry					
04	over me.					
24	Even a trivial problem occurred in the classroom makes					
05	me angry.					
25	I am not competent and comfortable when making use					
	of ICI in the classroom. It is the cause of my bad					
	temperament. However I manage the situations by					
26	Availing other sources of help.					
20	understanding the nature of the source they want mo to					
	attend to works at home					
27	Many a time I am forced to think that all are selfish and					
21	mindful of their own works. In such situations I console					
	minutur of their own works. In such situations i console					
28	In spite of several agonizing situations in the college I					
	managed to keep myself calm and goal oriented					
29	My family situation is not at all helpful for my study					
	However to relieve me from the tension I pour out all my					
	problems to my co-trainees.					
30	I am emotionally upset when I don't comply to the rules					
	and regulations of the college. However I console myself					
	by offering the best to the college in other available					
	circumstances.					
		1				

EDUSEARCH - ISSN : 0976 - 1160 Vol. 4 No. 1 Apr. 2013

Sr.	Statements	SA	MA	UD	MD	SD
31	My financial constraints often put me to shame in front					
	of staff and fellow students.					
32	Whenever I fail to participate in college programmes					
	due to personal constraints I am much dejected and					
	unable to get over it.					
33	Whatever be the corrections pointed out by the mentor					
	in my records I carry out them systematically					
	suppressing all my tension and stress.					
34	Limited understanding of certain practical works puts					
	me in difficulty while practicing them. However availing					
	help from friends and teachers I try to manage the					
	frustration.;					
35	No other work is more frustrating to me than setting					
	questions at different levels of comprehensions.					
36	Before submitting the lesion plan to guide teacher for					
	approval, I revise them several time. In spite of these					
	when remarks are written for improvement I stand					
	confused.					
37	I am unhappy about my proficiency in English. But					
	when mistakes are pointed out in my written works by					
	my friends and teachers I become highly dejected.					

* Mrs. R. Porthia: Research Scholar, Dept. of Education, Manonmaya Sundaram University. Tirunalveli. Tamilnadu Pin. 627011. e-mail id: einsten_paul@yahoo.co.in Usage of Meta Cognitive Strategyby Dr. Prakash Chandra Jena



Usage of Meta Cognitive Strategy by Teacher Trainees: An Explorative Study

Dr. Prakash Chandra Jena *

Abstract

The purpose of the study is to identify different levels of Meta cognitive strategy use of primary school teacher trainees. The investigator has taken 300 primary school teacher trainees from three districts of Jammu and Kashmir by using simple random sampling technique. For collection of data the investigator has used Meta cognitive Inventory (MCI) by Punita Govil. For analysis and interpretation of data the investigator has used t-test and Analysis of Variance (One way).

Introduction

Effective learning is not just a matter of innate intelligence. Learning depends, in part, on the effective use of basic cognitive processes such as memory and attention, the activation of relevant background knowledge, and the deployment of cognitive strategies to achieve particular goals.

To ensure that the basic processes are used effectively, that the activated knowledge is indeed relevant, and that appropriate strategies are being deployed, learners also need to have awareness and control of their cognitive processes. This higher level cognition was given the label metacognition by American developmental psychologist John Flavell (1976). Metacognition refers to learners' awareness of their own knowledge and their ability to understand, control, and manipulate their own cognitive processes. Quite simply Metacognition

has been characterized as "thinking about thinking" (Georghiades 2004), "thinking about learning" (Jackson 2004), and "what we know about what we know" (Halpern 1998). Baker (1989) defined it as "the knowledge and control a child has over his or her own thinking and learning activities".

Any process in which students examine the method that they are using to retrieve, develop or expand information is deemed to be metacognitive in nature. Children vary in their ability to solve problems and to learn from experience.

These individual differences are related to differences of intelligence, differences in experience and to differences in the use of metacognition.

Objectives of the Study

o To explore the difference in metacognitive strategy usage of primary school teacher trainees in terms of gender. o To explore the difference in metacognitive strategy usage of primary school teacher trainees in terms of their academic achievement.

Hypotheses of the Study

o There exists no significant difference in metacognitive strategy usage of primary school teacher trainees so far as the gender is concerned.

o There exists no significant difference in metacognitive strategy usage of primary school teacher trainees in terms of their academic achievement.

Method

Present study is explorative in nature and survey method has been used by investigator. The sampling frame of the study comprises all primary school teacher trainees of three districts of Jammu and Kashmir namely Anantnag, Budgam and Pulwama. The investigator has selected 300 primary school teacher trainees as sample from six teacher training institutions by using simple random sampling technique with equal proportion of male and female.

Tools Used

Following tool has been used for the data collection:

1. Metacognitive Inventory (MCI) constructed and standardized by Punita Govil in 2003.

Statistical Techniques Used

Following statistical techniques have been used for data analyses and for interpretation of results:

o t-test;

o Analysis of Variance (ANOVA-one way)

Data Analysis

In order to find out the difference in metacognitive strategy usage of primary school teacher trainees in terms of gender, t-ratio has been calculated and the results are presented in table no.1

Table no.1 shows that the calculated tratio of knowledge of cognition of male and female primary school teacher trainees is 2.36 which is significant at 0.05 level.

Therefore it can be interpreted that there exists a significant difference in knowledge of cognition among male and female teacher trainees. While comparing the mean scores of male and female primary school teacher trainees on knowledge of cognition strategy, male teacher trainees are better than female teacher trainees in the use of knowledge of cognition strategy. It is also observed from table no. 1 that the calculated t-ratio of regulation of cognition of male and female primary school teacher trainees is 0.84 which is not significant at both the levels. Therefore it can be interpreted that male and female teacher trainees do not differ significantly with each other with regard to the regulation of cognition. Table no. 1 further shows that the calculated t-ratio of metacognition in total of male and female teacher trainees is 1.74 that is not significant at both the levels. Therefore it can be interpreted that male and female teacher trainees do not differ significantly with each other with respect to metacognition in total. Figure no.1 shows the differences between male

Metacognitive Strategy	Male (N= Mean	150) SD	Female(N=150) Mean SD		SEd	t- value	Signi.
Knowledge of Cognition	41.17	4.65	39.85	5.12	0.56	2.36	P<.05
Regulation of Cognition	49.38	6.90	48.81	5.94	0.68	0.84	NS
Metacognition in Total	90.55	9.16	88.67	9.48	1.08	1.74	NS

Table No. 1Gender Differences in the Use of Metacognitive Strategie

24

Usage of Meta Cognitive Strategyby Dr. Prakash Chandra Jena

and female teacher trainees in the use of metacognitive strategy.

Figure No. 1

Bar GraphShowing GenderDifferences in the Use of Metacognitive Strategies



In order to know the difference in metacognitive strategy usage of primary school teacher trainees in terms of their academic achievement, they have been divided into three groups on the basis of their percentage of marks obtained in higher secondary part-II. Since three groups are to be tested simultaneously on metacognitive strategies Analysis of Variance (one way ANOVA) has been used and significant F-ratio has been followed by post hoc procedures.

Table No. 2 Classification of Sample on the basis of their academic achievement

Groups	f	%
Group-A-	66	22
Teacher trainees having marks 50% or less in		
Higher Sec. Part-II		
Group-B-	153	51
Teacher trainees having marks 50% to 60%		
Higher Sec. Part-II		
Group-C-	81	27
Teacher trainees having		
marks 60% or more in		
Higher Sec. Part-II		
Total	300	100

To find out the differences in the use of knowledge of cognition of three groups of primary school teacher in terms of their academic achievement, one way ANOVA has been used and the result has been shown in table no. 3

Table No. 3 Summary of ANOVA with Respect to Knowledge of Cognition

Source of	SS	df	MSS	F	Signi
Variation				ratio	
Between					
Groups	215.2	2	107.6	4.53	P<0.05
Within	7051.7	297	23.7		
Groups					
Total	7266.9	299			

(F-ratio at 0.05 and 0.01 levels of significance are 3.03 and 4.68 respectively)

It is evident from table no. 3 that the calculated F-ratio of knowledge of cognition is 4.53 that is significant at 0.05 level. Therefore it can be interpreted that there exists a significant difference between the groups on knowledge of cognition. However, a significant F-ratio does not tell us which of the group means differ significantly; it merely tells us that at least one mean is relatively different from some other. Consequently, there arises a need for further testing to determine which of differences between means is significant.

In order to find out where these differences exist, t-test as a post hoc comparison has been used in which all possible comparisons have been taken into account. The results of post hoc have been shown in table no. 4

Table no. 4 reveals that the calculated tvalue of group-A and group-B i.e. first pair on knowledge of cognition is10.10 which is significant at both the levels. This indicates that the two groups differ significantly with each other on knowledge of cognition. While comparing their mean scores, the primary school teacher trainees of group B were better in the use of knowledge of cognition than group-A. It can also be inferred from the table no. 4 that the calculated t-ratio of group-B and group-C is 15.33 which is significant at both the levels. Therefore it can be interpreted that there exists a significant difference between the teacher trainees of group-B and group-C on knowledge of cognition.

While comparing their mean scores, teacher trainees in group-C were more proficient in the use of knowledge of cognition than group-B. Table no. 4 also shows that the t-ratio of group-A and group-C is 18.38 which exceed the table value at both the levels. Therefore it can be interpreted that the two groups differ significantly so for as knowledge of cognition is concerned and primary school teacher trainees of group-C were better in knowledge of cognition than the teacher trainees of group-A.

It can be concluded from the above discussion that among the three groups, the teacher trainees of group-C were the most proficient in the use of knowledge of cognition and teacher trainees belonging to group-A were the least proficient in the use of knowledge of cognition. While as the group-B teacher trainees were more proficient than group-A but less proficient than group-C. To find out the differences in the use of Regulation of Cognition of three groups of primary school teacher in terms of their academic achievement, ANOVA has been used and the results have been shown in table no. 5

Table No. 5 Summary of ANOVA with Respect to Regulation of Cognition

Source of	SS	df	MSS	F	Signi
Variation				ratio	
Between Groups	468.5	2	234.2	6.99	P<0.01
Within Groups	9957.7	297	33.5		
Total	10426	299			

(F-ratio at 0.05 and 0.01 levels of significance are 3.03 and 4.68 respectively

It is observed from table no. 5 that the calculated F-ratio (6.99) is higher than the table value at both the levels of significance which indicates that there exists a significant difference between the groups on regulation of cognition. In order to determine where these differences exist, post hoc comparison has been used in which all possible comparisons between groups have been taken into account. The results of post hoc have been shown in table no. 6

Table No. 4

Post	hoc	Comp	parisons	Between	three	Pairs	of	Groups	on	Knowledg	e of	Co	gnition
													0

S. No	Groups	Ν	Mean	SD	SEd	df	t-value	Signifi.
1	Group-A	66	39.35	4.87	0.10	297	10.10	P<0.01
	Group-B	153	40.36	4.87				
2.	Group-B	153	40.36	4.87	0.09	297	15.33	P<0.01
	Group-C	81	41.74	4.87				
3.	Group-A	66	39.35	4.87	0.13	297	18.38	P<0.01
	Group-C	81	41.74	4.87				

(t-ratio at 0.05 and 0.01 Levels of ignificance are 1.97 and 2.59 respectively)

S. No	Groups	N	Mean	SD	SEd	df	t-value	Signifi.			
1	Group-A	66	48.21	5.79	0.13	297	1.38	NS			
	Group-B	153	48.39	5.79							
2.	Group-B	153	48.39	5.79	0.11	297	25.09	P<0.01			
	Group-C	81	51.15	5.79							
3.	Group-A	66	48.21	5.79	0.16	297	18.38	P<0.01			
	Group-C	81	51.15	5.79							

Table No. 6

Post hoc Comparisons Between three Pairs of Groups on Regulation of Cognition

(t-ratio at 0.05 and 0.01 Levels of ignificance are 1.97 and 2.59 respectively)





Table no. 6 reveals that the calculated tratio of group-A and group-B on regulation of cognition is 1.38 which not significant at both the levels. This indicates that the two groups do not differ significantly with each other on Regulation of Cognition and also shows that the calculated t-value of teacher trainees of group-B and group-C on regulation of cognition is 25.09 which much higher than the table value at both the levels. Therefore it can be interpreted that there exists a significant difference between teacher trainees of group-B and group-C on regulation of cognition. While comparing their mean scores, teacher trainees of group-C were more proficient in the regulation of cognition than teacher trainees of group-B. It also shows that the t-ratio of teacher trainees of group-A and group-C on regulation of cognition is 18.38 which is significant at both the levels. Therefore the two groups differ significantly on regulation of cognition. While comparing their mean scores, primary school teacher trainees of group-C were better in regulation of cognition than teacher trainees of group-A.

Major Findings

- Male and female teacher trainees differ significantly in knowledge of cognition.
 Male teacher trainees were better than female teacher trainees in the use of knowledge of cognition strategy.
- Male and female primary school teacher trainees do not differ significantly in their regulation of cognition and metacognition in total.
- Regarding knowledge of cognition, the teacher trainees with high academic achievement were found more proficient in the use of knowledge of cognition than the teacher trainees with low academic achievement.
- So far as the regulation of cognition is concerned, the teacher trainees of group-C were more proficient in the use of regulation of cognition than teacher trainees of group-A and group-B.
However, no significant difference was found among group-A and group-B

teacher trainees in the use of regulation of cognition.

REFERENCES

- Baxter Magolda, M. (1992) Knowing and Reasoning in College: Gender-related Patterns in Students' Intellectual Development. San Francisco: Jossey-Bass
- Bendixen, L., and Hartley, K. (2003). Successful Learning with Hypermedia: The Role of Epistemological Beliefs and Metacognitive Awareness. Journal of Educational Computing Research, 28(1), 15-30.
- Bransford, J. D., Brown, A. L., and Cocking, R. R. (2000). How people learn: Brain, mind, experience, and school. Washington, DC: National Academy Press.
- Brown, A. L., and Campione, J. (1997). Guided Discovery in a Community Of Learners. In K. McGilly (Ed.), Classroom lessons: Integrating cognitive theory and classroom practices (pp. 229-270).
- Brownlee, J. (2001). Changes in Primary School Teachers' Beliefs about Knowing: A Longitudinal Study. Asia-Pacific Journal of Teacher Education, 31(1), 87.
- Dominik, G. and Brian, W. (2007). Metacognition of Problem Solving Strategies in Brazil, India, and the United States. Journal of Cognition and Culture, 7(3),
- Dunlosky, J., and Hertzog, C. (1998). Metacognition in Educational Theory and Practice (pp. 249–275). Mahwah, NJ: Lawrence Erlbaum Associates.
- Georghiades, P. (2004). From the General to the Situated: Three Decades of Metacognition. International Journal of Science Education, 26 (3), 365–383.
- Gulsum, A., Semra, S. and Ceren, T. (2010). The Contribution of Cognitive and Metacognitive Strategies Use to Students' Science Achievement. Educational Research and Evaluation, 16(1), 1-21.
- Hacker, D. J. (1998). Metacognition in Educational Theory and Practice. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hartman, H. J. (1998). Metacognition in Teaching and Learning: An Introduction. Instructional Science International Journal of Learning and Cognition, 26(5),
- Hartman, H. J. (2001). Metacognition in Learning and Instruction: Theory, Research, and Practice. Kluwer Academic Publishers, Dordrecht, The Netherlands.
- Helen, N. (2009). Metacognitive Strategies on Classroom Participation and Student Achievement in Senior Secondary School Science Classroom. Science Education International, 20 (7), 79-93
- Lydia L. F. Schleifer and Richard B. Dull (2009). Metacognition and Performance in the Accounting Classroom. Issues In Accounting Education, 24(3), 339-367.

* Dr. Prakash Chandra Jena : Associate. Prof., School of Education, Lovely Professional University, Phagwara, Punjab. e-mail : drpcjena@gmail.com

A Study on Pre-service Teacher Education by Malini Pattanaik



A Study on Pre-service Teacher Education Programme of Utkal University

Malini Pattanaik *

Abstract

The educational system of our country is one poised for a leap forward towards the 21st century and is in the process of a remarkable transformation. No educational reform is possible without the teachers. The teachers' proficiency is ensured through improvement of teacher education. That is why all committees and commissions on education have laid great stress on teacher education. Particularly it is imperative to develop pre-service teacher education programme which calls for updating the input, process and outcome as a whole. Keeping this is view through this paper an effort has been envisaged to evaluate and compare one year and two years pre-service teacher education programme of Utkal University.

Introduction:

Quality of a nation largely depends upon the quality of it's schools. The quality of schools depends upon the quality of it's teachers. The quality of teachers mainly depends upon the quality of it's teacher education. No one can be a good teacher, unless he/she is trained. It is being felt that teachers should be educated and reeducated to be able to do the job well. He/she has to be oriented and re-oriented according to the requirements of new methods, techniques and devices to get good result. That is why it is said that teachers are not only born, but also made and they can be made through good preservice and in-service Teacher Education programme.

Education plays an important role in the development of human capacities. All the

nations develop their educational system according to the changing demands of the social changes those take place in and around. So it is very essential to enrich the teacher education system so that qualitative and capable teachers can be produced. To bring improvement in the teacher education system two years B.Ed. course in the Regional Institute of Education, NCERT and one year B.Ed. course of Utkal University are going on. Reflecting the crucial role of the teachers in national development considerable attention has been focused on pre-service teacher education programme of Utkal University. In the present study an attempt has been made to find out the strength and weakness of the B.Ed programme in relation to different dimensions of the course.

National desire of true education consists of knowledge, vocation, self-discovery and co-operation. New Educational Policy 1986 and its revised programme of Action of 1992 say that teacher education is a continuous process and pre-service and in-service factors can not be separated. To increase the quality with regard to competency commitment and performance in the field of teaching preservice training is essential.

It is highly accepted view that the education system can be raised as high as the level of the teachers. At the end one can say that education depends upon the type of teacher and teacher education. Therefore one should try his/her best to cultivate the capacity, competency and commitment of the teachers and teacher educators. Keeping this in view through this study an effort has been envisaged to evaluate pre-service teacher education programme of Utkal University.

Objectives :

Objectives of the study are as following;

- 1) To study the admission criteria, fees structure between one year and two years B.Ed. course.
- 2) To study the Course content, evaluation techniques between one year and two years B.Ed course.

Method and Procedure:

Sample:

In the present study random sampling procedure was followed. The sampling procedure has two requirements. It must be representative and adequate. The sample for the study is confined to three teacher training colleges under Utkal University. They are Regional Institute of Education (R.I.E.), Radhanath Institute of Advanced Studies in Education (RNIASE) and Nalini Devi Women's College of Teacher Education (NDWCTE). The size of the sample was confined to 120 preservice student-teachers out of which 30 students-teachers from RNIASE, 30 year B.Ed. student-teachers) 60 studentteachers from R.I.E. (60 two year B.Ed student teachers) and 40 teachers out of which 20 are from teachers teaching one year B.Ed. Course and 20 are from teachers teaching 2 year B.Ed. course.

Tools Used:

For collection of data the researcher has used a questionnaire which was developed as a tool. The questionnaire has been divided into three parts namely – INPUT (admission criteria, fees structure, Reservation) PROCESS (course content, Transactional strategies, evaluation techniques) and OUTPUT (% of pass fail, employment and views of teachers).

Procedure of Data Collection:

In order to collect requisite data for the problem the investigator visited to R.I.E., NDW CTE and RNIASE with permission letter and discussed the objectives of the problem with the head of the Institution. After taking necessary permission, clarified the objectives of the problem to the student teachers and teachers teaching in 1 year and 2 years B.Ed courses and collected the requisite data filled in questionnaire from the target population.

Statistical Techniques Used:

Since the data was collected through questionnaire, the percentage of Pre-Service students teachers and the percentage of teachers teaching in 1 year and 2 years B.Ed. course answering each item of question was calculated separately for analysis and interpretation. **Analysis and Interpretation of Data:** -Data were analysed with the help of percentage. The result of the study is presented in the following table.

Major Findings:

The following are the major findings of the study;

1. Both teachers teaching in 1 year and 2 years B.Ed, courses and student teachers of 1 year and 2 years B.Ed,

Sr	Items	B.Ed. Programme					
D 1.	items	Teach, E	ducators	Stuc	lents		
		I Caeffi D	2 v	IV	2 V		
		1 1	21	1 1	21		
	Input/Admission Criteria						
1	The B.Ed selection should be on the basis of	10.10/		10 60/	01.00/		
	(a) Career Marking	18.1%	5.5%	19.6%	21.2%		
	(b) Entrance Examination	09.0%	27.7%	12.7%	15.1%		
	(c) Viva Voice	04.5%	16.6%	01.7%	03.0%		
	(d) Both Career and Entrance Mark	$-\frac{68.1\%}{-}$	50.0%	66.0%	60.1%		
2	Corean marking						
	Career marking (a) up to $\mathbf{R} \wedge (+2)$	65.0%	10.8%	74 504	11 20/		
	(a) upto D.A. ($+3$) (b) Only P.A. ($+3$) morto		42.0%	01 90/	41.3%		
	(b) Only D.A. (+3) marks	10.0%	24.4%	01.0%	20.0%		
	(c) Career marking upto Ph.D. (d) $10^{\text{th}}(\text{H S C}) + \text{PA}(+2)$ mortes		07.1%		2/ 10/		
3 -	Age should be a criteria in B Ed Selection			20.0 /0			
3	Please give tick mark						
	(a) Ves	727%	63.6%	78.9%	73.0%		
	(a) ICS (b) No	27.2 %	36.3%	21.0%	26.9%		
4 -	Weightage should be given to in-service				20.770		
1.	teachers in selection						
	(a) Yes	83.3 %	83.3%	70.3%	87.5%		
	(b) No	16.6 %	16.6%	29.6%	12.5%		
5	The B.Ed selection should be on	1					
	(a) Central Level	6.6 %	05.5%	7.5%	13.7%		
	(b) State Level	66.6%	44.4%	45.2%	41.3%		
	(c) District Level	13.3%	27.7%	39.6%	06.8%		
	(d) Regional Level	13.3%	22.2%	07.5%	37.9%		
	Fee-Structure		- — — —				
6	The fees structure should be low for						
	(a) OBC Candidates	5.5%	6.2%	1.9%	3.4%		
	(b) SC & ST Candidates	16.6%	18.7%	5.8%	17.2%		
	(c) Physically handicapped Candidates	11.1%	18.7%	15.6%	24.1%		
	(d) Poor Candidates	66.6%	56.2%	76.4%	55.1%		
— -	Cource Content	1					
7	The syllabus has been formulated as per						
	the objectives						
	(a) Disagree	37.7%	33.3%	20.7%	17.2%		
	(b) Undesided	21.4%	06.6%	1.8%	03.4%		
L-	(c) Agree	42.8%	60.0%	77.3%	79.3%		
8	The topics included in the syllabus is up						
	to date						
	(a) Disagree	66.6%	66.6%	52.4%	46.4%		
	(b) Undesided	06.6%	08.3%	7.8%	03.5%		
<u>–</u>	(c) Agree	-26.6%	25.0%	39.2%	<u> 50.0% </u>		
9	11me is not adequate to complete the course	47 70/	E2 20/	26 50/	25 70/		
	(a) Disagree (b) Undograd	41.1%	53.3% 06.6%	30.5%	35.1%		
	(b) Undesided	50.0%		0.0% 50.6%	60 70/		
	(C) Agree	50.0%	40.0%	59.0%	00.7%		

Table 1Analysis of Pre-Service Teacher Education Program of Utkal University

Sr.	Items	B.Ed. Programme			
		Teach.	Educ.	Stu	dents
		ΙΥ	2 Y	ΙY	2 Y
10	Do you feel that the teacher should have been				
	provided with audio-visual facilities of				
	permanent nature for transacting the				
	curriculum				
	(a) Yes	60.0%	73.3%	28.8%	57.1%
	(b) Undesided	13.3%	06.6%	9.6%	17.8%
	(c) No	26.6%	20.0%	61.5%	25.0%
11	Evaluation Weightage of internal accommont should be				
11	weightage of internal assessment should be				
	(a) 25%	57.8%	62.5%	34.0%	51.7%
	(b) 30%	10.5%	12.5%	18.0%	27.5%
	(c) 40%	05.2%	18.7%	24.0%	10.3%
	(d) 50%	26.3%	06.2%	24.0%	10.3%
12	Which of the tools should be used for the				
	assessment of practitioner				
	(a) Demonstration Skill	36.8 %	31.5%	48.0%	39.2%
	(b) Showing practical records	01.0%	05.2%	01.8%	07.1%
	(c) Day to day performance	42.1%	42.1%	23.0%	35.0%
-17	(d) Oral and written	<u> 15.7%</u>	21.0%	26.9%	37.8%
13	Are you in favour of internal evaluation in				
	B.Ed programme	94 6 94	00.00/	07.00/	
	(a) Yes	04.0 % 15 2 %	90.9%	97.9%	95.2%
-14	The percentage of pass mark in aggregate in	$-\frac{13.3}{-}$	09.070		04.7 /0
1.	B.Ed examination should be				
	(a) 36%	15.5 %	12.5%	28.8%	37.0%
	(b) 45%	21.0%	31.2%	32.6%	44.4%
	(c) 50%	57.8%	50.0%	19.2%	14.8%
	(d) 60%	05.2%	06.2%	19.2%	03.7%
15	The percentage of pass mark in B.Ed.				
	Practical Examination should be				
	(a) 30%	05.2 %	06.2%	19.2%	34.4%
	(b) 45%	10.3%	18.7%	12.2%	17.2%
	(c) 50%	52.2%	56.2%	42.1%	37.9%
16	(a) 60%	<u> </u>	18.7%	26.3%	03.0%
10	Examination (individual paper) should be				
	(a) 33%	06.6%	06 2%	33 30/-	18 5%
	(a) 35% (b) 36%	13.3%	12.5%	10 7%	33 3%
	(c) 40%	13.3%	37.8%	23.2%	25.9%
	(d) 45%	66.6%	43.5%	32.1%	22.2%
		•	/ •		

Table 1 (Contd.)

Analysis of Pre-Service Teacher Education Program of Utkal University

courses are in favour of the selection on the basis of both career and entrance mark. and 2 years B.Ed, courses and student teachers of both 1 year B.Ed, and 2 years B.Ed. courses have suggested that the B.Ed, selection should be on

2. Most of the teachers teaching in 1 year

the basis of career marking upto B.A, (+3).

- 3. The teachers teaching in 1 year and 2 years B.Ed, courses and student teachers of both 1 year B.Ed, and 2 years B.Ed, courses have suggested that Age is a criteria in B.Ed, selection.
- 4. A number of teachers teaching in 1 year and 2 years B.Ed, courses have opined that age is a criteria in B.Ed, selection because it is a professional course where as many student teachers of 1 year B.Ed, and 2 years B.Ed, courses have opined that Age is a criteria in B.Ed, selection due to all the three reasons like, it is a professional course, it is related with future life and the pupil and teacher interaction is there.
- 5. A number of teachers teaching in 1 year and 2 years B.Ed, courses and student teachers of both 1 year B.Ed, and 2 years B.Ed, courses have suggested that the fees structure should be less for candidates having poor economic condition.
- 6. Teachers teaching in Both 1 year, 2 years B.Ed, courses and 1 year, 2 years B.Ed, student teachers have suggested that weightage are to be given to inservice teachers in selection.
- Both the teachers teaching in 1 year and 2 years B.Ed courses and the student teachers of 1 year and 2 years B.Ed courses have opined that both the 1 year and 2 years B.Ed, syllabus has been formulated as per the objectives.
- 8. The teachers of both 1 year and 2 years B.Ed, courses have disagreed that the topics included in their syllabus is upto date whereas the student teachers of 1 year B.Ed, course disagree to it and the student teachers of 2 years B.Ed, course agree to it.
- 9. The teachers of 1 year B.Ed, course disagree that there is repetition of content in different units/papers whereas the teachers of 2 years B.Ed, courses agree to it and both the student

teachers of 1 year and 2 years B.Ed, have disagreed that there is repetition of content in different unit/papers.

- 10. The teachers teaching in 1 year B.Ed, course have agreed that time is not adequate to complete the course whereas the teachers teaching in 2 years B.Ed, course have disagreed to it and on the other hand both the student teachers of 1 year and 2 years B.Ed, course have opined that time is not adequate to complete the course.
- 11. Both the teachers teaching in 1 year and 2 years B.Ed, courses have disagreed that Reference books given in the syllabus are upto date where as the student teachers of both 1 year and 2 years B.Ed, courses have agreed to it.
- 12. The teachers teaching in 1 year and 2 years B.Ed. courses and student teacher of both 1 year and 2 years B.Ed. courses feel that the teachers should have been provided with audio visual facilities of permanent nature for transacting the curriculum.
- 13. The teachers teaching in both 1 year and 2 years B.Ed, courses have suggested that the percentage of pass mark in aggregate in B.Ed, examination should be 50% whereas the student teachers of both 1 year and 2 years B.Ed, have suggested that it should be 45%.
- 14. Both the teachers teaching in 1 year and 2 years B.Ed, courses and student teachers of 1 year and 2 years B.Ed, courses have suggested that the percentage of pass mark in practical in B.Ed. examination should be 50%.
- 15. The teachers teaching in both 1 year and 2 years B.Ed, courses have suggested that the percentage of pass mark in theory (individual paper) in B.Ed, examination should be 45% whereas the student teachers of 1 year B.Ed have suggested that it should be 33% and the student teachers of 2 years B.Ed, have suggested that it should be 36%.

Conclusion:

Success in teaching at all levels depends mainly upon the teachers who are the real architects of a nation. Their role in developing the character and vision of the citizens of the future is unique. Hence the quality of any educational system depends to a large measure on securing well prepared and adequately equipped teachers stepped in learning, strong in character, with high ideal and devoted to the spread of knowledge. Mahatma Gandhi recognized TEACHERS as "custodian of Future". Thus, nothing is more important than ensuring sufficient number of high quality teaching professional, with the best possible infrastructure and facilitating satisfactory conditions of work culture. Indeed the quality of education in a country and quality of its culture depends on the quality of its teachers and the teacher education. For the quality teachers, qualitative teachers education programme is required.

REFERENCES

- Aggarwal, J.C (2000) : Teacher and Education in a developing society. Vikas Publishing House Pvt. Ltd., New Delhi.
- Best, John W and Khan, James U (1999) : Research in Education. Prentice Hall of India Private Limited, New Delhi.
- Buch, M.B. (1978-1983) : Third survey of Research in Education. NCERT, New Delhi.
- Buch, M.B. (1991) : Fourth survey of Research in Education. NCERT, New Delhi.
- Buch, M.B. (1988, 1992) : Volume 1 Fifth survey of Research in Education, NCERT. New Delhi.
- Chaurasia,(1977) : Challenges and Innovations in Education. Sterling publishers Pvt. Ltd., New Delhi.
- Govt. of India (1964-66) : Report of the Indian Education Commission. M.H.R.D., Department of Education, New Delhi.
- Govt. of India (1992) National Policy on Education 1986, Programme of Action, 1992.M.H.R.D. Department of Education, New Delhi.
- Garrett, H.E. (1981) : Statistics in Psychology and Education.

* Malini Pattanaik : Lecturer in Education, NDW CTE, Bhubaneshwar, Odisha. e-mail id: malini.pattanaik09@gmail.com

An Appraisal of Quality Management Initiatives in.....by Dr. Manindra Kumar Sharma

EDUSEARCH ISSN : 0976 - 1160 Vol 4. No. 1. April-2013

An Appraisal of Quality Management Initiatives in the Area of Teacher Education with Special Reference to Meerut Region

Dr. Manindra Kumar Sharma *

Abstract

The Govt. of India has empowered some agencies such as U.G.C. and N.C.T.E. to improve the quality of the institutions of teacher education. Furthermore Govt. has also authorized these agencies to check the quality of Teacher education. How far these agencies are performing their duties and what is the real role of these agencies is a big question which receives our immediate attention. The study in hand will highlight the proper need of quality initiatives in the Teacher education.

Introduction

India is now facing global competition with foreign universities after implementation of W.T.O. and GATT. The quantity wise we are producing good number of graduates and post graduates but quality wise we are far behind in the global market.

Under the present circumstances when we are facing so many new challenges and problems in the field of teacher education. In order to solve this problem the Govt. of India has empowered some agencies such as U.G.C. and N.C.T.E. to improve the quality of the institutions of Teacher education. Further more Govt. has also authorized these agencies to check the quality of Teacher education. How far these agencies are performing their duties and what is the real role of these agencies is a big question which receives our immediate attention. The study in

hand will highlight the proper need of quality initiatives in the teacher education, keeping in view of global competition. The present study provides an insight into teacher education system and its unique role in the economy. It will also highlight the gap between the present system and the required system to fulfill the demand in the present scenario. The study will also pinpoint some areas where more attention is required immediately to improve and develop the present system as per the international and national demands. Keeping in view the above mentioned facts, an idea came into the mind of the investigator that he should study this problem systematically with special reference to the institutions of Teacher education of Meerut region. Under the study special emphasis will be laid how far these institutions are fulfilling the

prescribed norms and what is the role of different agencies which have been assigned the task of improvement in the system of Teacher education.

Objectives of the Study:

Following are the objectives of the study

- 1.To study the present Teacher education system of Meerut region.
- 2.To study various quality initiatives taken by govt. in practices formal and informal adopted by various bodies associated with Teacher education.
- 3.To find out whether the present quality practice initiatives are being implemented properly and effectively.
- 4.To evaluate whether these practices have achieved the desired goals i.e. to find out the gap between the existing practices (initiatives) and the actual requirements.
- 5.To analyze the quality initiatives in terms of actual output for the betterment of different stakeholders.
- 6.To find out ways and means to augment these initiatives by plugging the loopholes between theory and practice in order to improve their effectiveness.

Research Questions:

In order to achieve the above mentioned objectives, the investigator formulated following research questions.

- 1. What are the quality initiatives have been taken by government of India and other organizations, which are granting recognition?
- 2. What is the effect of these quality initiatives in improving the quality of these institutions?
- 3. How far these quality initiatives are improving the conditions of institutions of teacher education?
- 4.To study loopholes of the present system and how can this system be improved?

Procedure of the Study:

In this chapter, the methodology and procedure used in conducting this

interdisciplinary Research have been discussed as follows -

Population:

Population for the present study has been defined as the total number of Teacher Education Institutions of Meerut region. Teacher Education colleges are affiliated to NCTE. In Meerut region both aided and non-aided Teacher Education Institutions are situated.

The Sample:

The sample size states – "For effective and quick appraisal of a project a sample of 60 Principals, faculy and Directors of 20 Teacher Education colleges aided and none aided in Meerut Region were selected for the study.

Tools used:

In survey method the following tools were used in this study to collect data:

(1) A self-prepared questionnaire to study the role of N.C.T.E. in enhancing the quality of Teacher Education in Meerut Region of Uttar Pradesh.

Data Organization:

Data collected through questionnaire has been organized properly. In this regard, first of all, the responses received on these tools were edited for accuracy, utility and completeness to avoid errors. Then Tally marks were made against each response on the basis of responses given by Director and Faculty. Thus the percentages were calculated.

Data Analysis:

The data thus collected and organized was analyzed quantitatively as well as qualitatively so as to assess the quality enhancing by N.C.T.E., There are following some Tables.

Finding of the study

According to the Directors, Principals, faculty towards the role of NCTE in improving the quality of Teacher Education.

1. After studying the present education system, it is found that Infrastructure, equipments and stocks are not found properly.

Table 1.	
Table showing View of Director and faculty members about B.Ed. Training	g
College according to the NCTE norms.	

Sr.	Category	Ag	gree	Uncertain		Disagree		Total
		No.	%	No.	%	No.	%	
1.	Land Use	37	62%	8	13%	15	25%	60
2.	College Building	31	52%	5	8%	24	40%	60
	Condition							
3.	Class-rooms	25	42%	10	16%	25	42%	60
	Condition							
4.	Science Lab &	16	27%	6	10%	38	63%	60
	Instruments							
5.	Psychology Lab &	24	40%	6	10%	30	50%	60
	Instruments							
6.	Library	29	48%	10	17%	21	35%	60
7.	Purchase of	14	23%	16	27%	30	50%	60
	Journals							
8.	Purchase of Books	18	30%	16	27%	26	43%	60
9.	Technology Lab&	19	32%	14	23%	27	45%	60
	Equipments							
10.	Use of Technology Lab	16	27%	7	12%	37	61%	60
	& Equipments							
11.	Appointing Faculty	42	70%	2	3%	16	27%	60
	as per norms							
12.	Salary of Faculty	11	18%	9	15%	40	67%	60
	as per norms							
13.	Faculy Participating in	22	37%	8	13%	30	50%	60
	NCTE & NCERT							
	Programmes							
14.	Computer Education	15	25%	13	22%	32	53%	60
	Facility for faculty							
15.	Use of Psychological	31	52%	13	22%	16	26%	60
	Tests							
16.	Arranging Guest	29	48%	10	17%	21	35%	60
	Lectures							
17.	Attendance of	34	57%	2	3%	24	40%	60
	students 60% <							
18.	Fee structure	12	20%	11	18%	37	62%	60
	as per norms							

Table 1. (Contd.)
Table showing View of Director and faculty members about B.Ed. Training
College according to the NCTE norms.

Sr.	Category	Agr	ee	Uncertain		Disagree		Total
		No.	%	No.	%	No.	%	Ī
19.	Admission fee	18	30%	11	18%	31	52%	60
	as per norms							
20.	Practice Teaching	23	38%	1	2%	36	60%	60
	40 days							
21.	Admission of 100%	27	45%	4	7%	29	48%	60
	students by conselling							
22.	Academic Performance	38	63%	10	17%	12	20%	60
	of students above averge							
23.	Reservation of	41	68%	8	13%	11	19%	60
	category as per the							
	govt. rules							
24.	Counseling and	33	55%	17	28%	10	17%	60
	guidance							
25.	Evaluation Theory	25	42%	27	45%	8	13%	60
	and Practical as per							
	norms							
26.	Evaluation as per	20	33%	23	38%	17	29%	60
	NCTE Norms							
27.	Inspection by NCTE	23	38%	17	28%	20	34%	60
	after recognition							
28.	Organizing refresher	5	8%	20	33%	35	59%	60
	courses for faculty							
29.	Improving quality of	16	27%	15	25%	29	48%	60
	Teacher educators							
30.	Role of Curriculum	21	35%	20	33%	19	32%	60
	of B.Ed. programme							

- 2. After studying various quality initiatives taken by govt. in practices formal and informal adopted in teacher education system, it is found that NCTE norms and using of equipments in the class rooms are not following properly.
- 3. It is found that present quality practice initiatives are being implemented properly but these are not following in

a proper way by the Institutions and colleges.

4. Some gap is found between the existing practices (initiatives) and the actual requirements.

a.NCTE norms are not following properly.

b.Equipments in Technology lab of their Institution are not according to the norms. An Appraisal of Quality Management Initiatives in......by **Dr. Manindra Kumar Sharma**

- c.Faculty of their Institution do not use Equipments of Technology lab during Teaching.
- d.N.C.T.E. does not organize orientation and refresher courses for Faculty.
- 5a.The skill and competence level of the faculty members for organizing experiential activities and participatory programmes.
- 5b.The updated curricula in respect of the latest professional knowledge and skills considered relevant in the altered contexts of 21st century.
- 5c.The exact hours of learning opportunity provided to the trainees for

acquiring practical skills and knowledge.

- 5d.Promoting the sensitivity for institution-building by developing mechanisms of self-regulation and selfdiscipline in respect of the faculty and the staff. This can be ensured by creating norms and concerns for high standards of teaching, research and interface with the community.
- 6 There are some ways and means to augment these initiatives by plugging the loopholes between theory and practice in order to improve their effectiveness.

REFERENCES

Aggarwal, J.C. "Educational Research an Introduction", Arya Book Depot.

- Barnet, R. (1992). "Improving higher Education: Total quality care" London: The society for Research into Higher Education and the Open University.
- Basu. A.N. "Education in Modern India" Calcutta, orient Book Co. 1947.
- Bell Judith, "How to complete a Research Project successfully", UBS publishers and Distributors, 1993, New Delhi.
- Bloland, H. (1999). Creating CHEA: Building a new national organization on Accrediting. The journal of Higher Education, 70(4,) pp. 357-388
- Bhatnager & Aggarwal. "Educational Administration" by R. Lal Book Depot, Meerut, 2000.
- Chakravarti, M. Education in the 21st Century. Kalpaz Publications-2004, Delhi.
- Brooks, Rachelle. "Measuring University Quality", The Review of Higher Education Volume 29, Number 1, Fall 2005
- Himalayanath A. (2006), "Indianising Education in the context of globalization: A Critique", Journal of Indian Education, November 2003, pp. 97-98
- An Article titled, "World Bank Survey: Ninety percent Graduate are not able for Jobs". Published Jagran News Paper, 5th Oct. 2007.
- Amin, M.M. (2008), "Higher Education under WTO regime an Indian perspective" Journal of Educational Planning and Administration Vol. XXII, No. 1, January 2008, pp. 45-48
- Anuradha (2009). "Higher and Professional Education: Quality improvement factors ", Research Journal 2009 No. 2, pp. 177-188
- Gupta rainu (2011) "Teacher Education in India and United State of America- a Study " A Journal of Higher Education Association of Indian Universities. UNIVERSITIES NEWS, 49(46) November 14-20, 2011.

* Dr. Manindra Kumar Sharma : Asstt. Professor, R.N. Institute of M.M.E.R.C., Meerut. Uttar Pradesh. E-mail : manindraksrd@gmail.com

EDUSEARCH				
ISSN: 0976 - 1160				
Vol 4. No. 1. April-2013				

A study on Role-play for boosting Academic Achievement of Students in Language Skills at Secondary Level

Dr. Bhindhu, C. M. * & Niranjana K. P. **

Abstract

The present study examines the effectiveness of Role-play strategy. The investigators adopted the experimental method and quasi experimental design was used. The sample of the study consists of 69 students selected from two schools in Malapuram district. Lesson transcript based on role-play strategy, lesson plan based on activity method and achievement test in Malayalam are the tools used for the study. The mean performance of the experimental and control groups on the post test scores were studied and compared using test of significance of difference between means. The result shows that Role-play strategy is more effective.

Introduction

Role play is a powerful and effective strategy for children and can be adapted to deliver any learning objectives from simple to complex concepts. It really lends well to practice communication skills; debates compel ethical issues or explore attitudes and beliefs. The success lies in the construction and delivery with careful facilitation. Role playing is effective in engaging students and allowing them to interact with their peers as they try to complete the task assigned to them in their specific role. Role play can be done in groups and students can maintain the person of their role through the class period. Students are more engaged as they try to respond to the material from the perspective of their character.

Role-playing can be used with students of most ages. The complexity of the role

situations must be minimizes in suing the method with children. The activities of role play are positive and safe in dealing with attitudes and feelings, they provide a safe venue for expressing personal and sometimes unpopular attitudes and opinions and it is highly motivating as the majority of students enjoys these types of activities and become more inspired learners. Role playing activities help introduce to real world situations (Oberle, 2004).

Role-playing allows people to make mistakes in a nonthreatening environment. They can test several solutions to very realistic problems, and the application is immediate. It also fulfills some of the very basic principles of the teaching learning process such as learner involvement and intrinsic motivation. A positive climate often results in which one can see himself as A Study on Role-play for boosting Academicby Dr. Bindhu, C. M. & Niranjana, K. P.

others see him. The involvement of roleplaying participants can create both an emotional and intellectual attachment to the subject matter at hand. Andrew Schapp (2005) found that role-playing is more likely to promote active learning amongst undergraduate students than a traditional university lecture.

Today our school system follows activity oriented method of teaching language but this method is not practices in the correct format. So the aim of language teaching is failed. Students learning language never learn it by books, using the language is speech and writing, study of poem, prose, articles etc will give the real knowledge of it.

Fourfold language skills like listening, speaking, reading and writing are to be developed in full sense. Learners are able to express what they know otherwise the learning is not complete. If it is expressed in an artistic form interest of students will be aroused, the concepts presented will be recorded in their memory and retained for a long time. Students revealed that activities of role-play are the best and most appropriate strategy to improve one's communication skills while cultivating awareness of grammatical accuracy. These activities can foster the personal growth of students as they participate in creative and cooperative assignments. Majority of students enjoy these types of activities and become more inspired learners. In role play, children are involved in writing, designing, acting and production of a programme.

Objective

Objective of the study is;

1. To compare the mean post test scores of experimental and control group for the total sample and the subsample based on gender.

Hypothesis

Hypothesis of the study is;

There will be no significant difference in the mean post test scores of experimental and control group for the total sample and the subsample based on gender.

Methodology

Design and sample

The present study has been conducted by employing the post test non equivalent group design. The experimental group was taught through role play method and the control group was taught through the activity method of teaching. The sample of the study consists of 34 students in experimental group and 35 students in control group from two secondary (8th standard) schools in Malappuram district. **Tools**

(a). Lesson transcript for role-play method

(b). Lesson plan for activity method

(c). Achievement test in Malayalam

Statistical technique

Test of significance of difference between means (t)

Analysis and Discussion

The mean and standard deviation for post test scores of both of the groups were calculated separately and subjected to the test of significance of difference between means. Results of't' is presented in the following Table.

As per the Table 1 the obtained result indicates that the performance of Experimental and Control groups on the Post test was dissimilar. Since the higher means were associated with the Experimental group, they were found advantageous over the Control group in the case of Post test.

It is also seems that the t-value obtained for the Post test for Male was found to be exceeding the limit set for 0.01 level. It can be considered from the result of the t-test that the Male in the Experimental group and Control group are different in the case of their performance in the Post test. High mean score for Male in Experimental group over the Male in the Control group noticed in Post test, revealed the superiority of the Table 1.

Showing Results of the "t" test for the mean scores of Post test between Experimental and Control Groups for Total sample and the subsample based on Gender.

Sample	Variable	Exp	erimenta	l Group	p Control Group		t	Signi.	
		N1	M1	SD1	N2	M2	SD2		
Total	Post test	34	19.33	5.04	35	12.20	4.92	5.85	0.01
Male	Post test	12	19.36	6.15	16	12.93	4.74	3.01	0.01
Female	Post test	22	19.31	4.56	19	11.63	5.12	5.08	0.01

Experimental group over the Control group.

For Female, the t- value obtained for Post test was found to be exceeding the limit set for 0.01 level of significance. It can be inferred from the result that, the performance of Experimental and Control groups for Female are dissimilar in the case of Post test. High mean score for Female in the Experimental group indicated that they are advantageous over the Control group in the case of their performance on the Post test.

Major Findings

The major findings of the study are; 1. The Role Play Method of Language

1. The Role Flay Method of Language

Teaching is better than Activity Method.

2. The above mentioned fact is true irrespective of the gender of the students.

Conclusion

As an instructional strategy the influence of role play is highly effective and remarkable in the attainment of the objectives of language teaching. The students who participated in this study habitually memories and recite dialogues in their text books.

Role play permits students to fight against their fear of speaking in public and develop the level of vocabulary, expressions and grammatical knowledge.

REFERENCES

Jones, K. (1982) *Simulations in language teaching*. Cambridge: Cambridge Uni. Press. Mc George. (1993). Effectiveness of role-playing and anti- racist teaching in reducing student prejudice. *Journal of Educational Research*, 86 (4), 215-226.

Oberle, A. P. (2004). Understanding public land management through role playing. Journal of Geography, 103(5), 199-210.

Scarcella, R. & Oxford,R.L.(1992) *The tapestry of language learning*. Bostern: Henile and Henile.

Schaap, A.(2005). Learning political theory by role playing. *Politics*, 25(1), 46-52.

Teahan, J.E. (1975). Roleplaying and group experiences to facilitate attitude and value changes. *Journal of social issues*, 31 (1), 35-45.

* Dr. Bindhu, C. M.: Associate Prof., Farook Training College, Calicut. Kerala,. Pin. 673632. e-mail : drbindhucm@gmail.com
** Smt. Niranjana, K. P. : Asstt. Prof., Farook Training College, Calicut. Kerala,. Pin. 673632. e-mail : niranjana bmenon@yahoo.com Academic Achievement as a function ofby Dr. Sumanlata Saxena & Dr. Laxmi, D.



Academic Achievement as a function of Emotional Competence and other Demographic Variables

Dr. Sumanlata Saxena * & Dr. Laxmi, D. **

Abstract

The study aims at examining the effect of emotional competence on academic achievement of IX grade students studying in residential and non residential schools of Durg, Raipur & Rajnandgaon districts of Chhattisgarh. Types of schools and gender aspects have also been taken into consideration. The sample comprised of 800 IX grade CBSE school students .Emotional competence Scale developed by Bharadwaj &Sharma was used to measure emotional competence and a self made questionnaire standardized by the researcher was used to measure academic achievement. Results revealed that emotional competence and residential status have a significant effect on academic achievement but gender & type of school had no effect on academic achievement.

Introduction

Achievement is the end produce of educational endeavour. Since it is affected by many factors, it has been a factor of research to find out the relative contribution made by each variable to the academic achievement be it a cognitive or non-cognitive variable. The best achievements as well as the worst deeds of human beings are the product of different emotions at different times. Chowdhury & Muni (1995) explored the role of parental support in satisfying children's needs and academic achievements. The results revealed that parental supports were found to have positive effect on their children's academic performance.

Handling of emotions happens to be most

important aspect in the congenial growth of personality as well as to the undaunted behavioural manifestations. What terms doing, anything into doing it well is essentially a display of competence *(Bharadwaj & Sharma, 1994),* and appears necessary to lead a fairly well integrated life. Whenever this aspect is related to emotions, it is usually termed as emotionally competence, which is the ability of an individual to deal effectively with emotions (Sharma, 1994).

Emotions are charged by the nature in the organism providing him with great primeral forces of power to adjust. Emotions happen to people, people do not make them happen. Emotions can alter motivation. Emotions may promote health. *Srivastava* (1995) found moderate

love and discipline resulting in better academic achievement than the poor amount of love and discipline.

The conditions that arouse emotions enhances the individual to realize his goal. The conditions that provoke emotions change with the individual's expanding abilities and interests.

With increasing age, the range of activities widens increasing the emotional susceptibilities. An individual's behaviour varies with time and situation. People who tend generally to be warm, caring, and attentive can in some situations, become hostile and aggressive. People change their responses to suit the situation, based on their past experiences and their current assessment of the situation. Kaur & Kaur (2007) studied to reveal the impact of parent child relationship on emotional competence of adolescents. The results showed that the two variables, emotional competence and parent child relationship of adolescents of Punjab are positively correlated with each other. The results also reveal insignificant difference between the emotional competence of boys and girls. This reflects human ability to adapt. An emotionally competent person would not panic or let his responses escape conscious control. Parker et.al (2004) examined the relationship between emotional intelligence and academic achievement. It was found that different levels of academic success were strongly associated with several dimensions of emotional intelligence. He tries to reinterpret the situation tackling it gently. The schools have an effect of their philosophies and practices on children's behaviour as well as on their attainments. The values and expectations of schools, the relationships fostered within then and the models presented to them all influence the development of their pupil's attitudes. Residential schools are a place of formal instruction as well as

wholesome living. These schools emphasize on the transmission of socialization culture apart from bookish knowledge. *Usha*(2009) found that the best predictor of academic achievement is emotional competence.

Singhal, Singh & Das (2003) made a study on the effect of anxiety on emotional competence. The results showed that emotional competence was affected by anxiety and students with low anxiety were more emotionally competent whereas the students with high anxiety showed low emotional competence. Away from parental influence, may it be warmth, support, encouragement or punishment; these individuals have to tackle problems themselves. The researcher investigated to find the effect of the residential status, gender, type of school and emotional competence on academic achievement of students. and framed the following objectives.

Objectives

Following are the objectives framed for the study :

- 1.To Study the relationship between emotional competence and academic achievement of residential and nonresidential school pupils.
- 2. To study the effect of residential status, gender, type of school and total emotional competence on academic achievement.

Hypotheses

The following null hypotheses were formulated that allow quantitative analysis.

- 1 :There exists no significant relationship between emotional competence and academic achievement of residential school pupils.
- 2 :There exists no significant relationship between emotional competence and academic achievement of nonresidential school pupils.
- 3: There exists no significant effect of residential status, gender, type of

Academic Achievement as a function ofby Dr. Sumanlata Saxena & Dr. Laxmi, D.

school and total emotional competence on academic achievement of school pupils.

Sample

For the present study, the data was collected from three districts of Chhattisgarh, namely, Raipur, Durg and Rajnandgaon. Out of 494 secondary schools, residential schools from all three districts were chosen purposefully and same number of non-residential schools was chosen randomly from each district. The sample consists of 800 IX grade pupils, 400 residential and 400 nonresidential. 200 pupils from government residential and 200 from private residential schools were chosen randomly and with similar pattern, 400 pupils were selected from non-residential schools. The sample was selected randomly.

Tools Used

 To test the emotional competence, Emotional Competence Scale b y Bharadwaj & Sharma (1995) was used.
 The Academic Achievement was measured by a self made questionnaire.
 Intelligence Scale by Mehrotra was used to control intelligence by taking average intelligence students.

The data was subjected to statistical analysis for further interpretation.

	Table 1	
Correlation	co-efficient	of Various
Variables of 1	Residential So	chool Pupils

Variable1	Variable1	Corre. Coe.		
Academic	Emotional	0.150**		
Achievement	Competence			

Table 2 Correlation Co-efficient of Various Variables of Non-Residential School Pupils

Variable1	Variable1	Corre. Coe.		
Academic	Emotional	0.190**		
Achievement	Competence			

Results & Interpretation

To test the significance of the first hypothesis, Karl Pearson correlation coefficient was calculated.

Academic achievement and emotional competence are found to be significantly positively correlated in pupils studying in residential schools.

To test the second hypothesis, r was calculated and results were further interpreted.

There is a significant positive correlation between academic achievement and emotional competence in non-residential school pupils.

To test the hypothesis 3, four way ANOVA (resi. status $2 \times type$ of school $2 \times gender$ $2 \times total emotional competence s) was computed. Summary of the same has been given in table no. 3$

Table 3 Summay of ANOVA

Source of	SS	df.	MSS	F
Variation				
Residential				
Status RS	1231.3	1	1231.3	12.90**
Type of				
School T	171.12	1	171.1	1.79
Total				
Emotional				
Competence	2145.1	1	2145.1	22.48**
Gender G	5.7	1	5.7	0.06

Academic achievement is largely affected by factors like residential status and total emotional competence. Mean scores depicts that residential school pupils are better achievers than their counterparts in non-residential schools regards to emotional competence, it is observed that pupils with high emotional competence achieved better than those having low emotional competence.

It is observed that there is no difference in the academic achievement of boys and girls.

Findings

- 1. There is a significant positive corelation between academic achievement and emotional competence in students studying in both residential and non residential schools.
- 2. A significant effect of residential status and emotional competence on academic achievement is observed.
- 3. gender & type of schools have no effect on academic achievement .
- 4. mean scores depict high achievement in residential school students than their counter parts.
- 5. mean scores also show better achievement in students with high emotional competence than students at low emotional competence.

REFERENCES

- Arati, C. & Rathna, Prabha (2004) Influence of Family Environment on Emotional Competence of Adolescents .Journal of Community Guidance & Research, 21(2), pp. 119-127
- Chowdhury, Aparajita & Muni, Anita Kumari (1995). Role of Parental Support in Children's Need Satisfaction and Academic Achievements. Journal of Community Guidance and Research, 12(2), pp. 135-144
- Devi, Sarita & Mayuri, K. (2003) The Effects of Family and School on the Academic Achievement of Residential School Children. *Journal of Community Guidance* & Research, 20(2), pp. 139-148
- Gurubasappa, H.D. (2009). Intelligence and Self-Concept as Correlates of Academic Achievement of Secondary School Students. *Edutrack, June 2009, pp. 42-43*
- Kaur, Amandeep, Kaur & Sweepandeep (2007). Comparative Study of Impact of Parent Child Relationship on Emotional Competence of Adolescents of Punjab and Haryana State. Recent Researches in Education and Psychology (2007, Vol. 12, Nos. I-II, pp. 45-51
- Kuruvilla, Moly and Usha, P. (2009). Emotional Adjustment, Achievement Motivation and Academic Acheivement of the Adolescents of Working & Non-Working Mothers. Journal of Community Guidance & Research (2009), Vol. 26, NO. 3, pp. 259-266
- Pandey, S.N. & Ahmad, Md. Faiz (2008). Significance of Difference Between Male and Female Adolescents on Academic Performance, Achievement Motivation, Intelligence and SES. Journal of Community Guidance & Research, 25(1), pp. 34-39
- Parker, James D.A., et.al (2004). Personality and Individual Differences, Vol. 37, Issue-7, Nov. 2004, pp. 1321-1330
- Singhal, Ritu & Singh, Rachna & Das, Ira (2003) Effect of Anxiety upon E.C. of Higher Secondary Students of Different Educational Boards. Journal of Community Guidance & Research, 20 (1), pp. 3-6
- Srivastava, R.K. (1995). Effect of the Parent-Child Relationship Perception upon the Academic Achievement of Vth Class Pupils Praachi Journal of Psycho-Cultural Dimensions (1995), Vol. 11, No. 1 & 2, pp. 27-32

* Dr. Sumanlata Saxena : *Asstt. Prof., Kalyan PG College, Bhilai, Distt. Durg. (C.G.).*

** Dr. Laxmi, D. : Asstt. Prof., Bhilai Maitri College, Bhilai, Distt. Durg. (C.G).

Academic Achievement of High Schoolby Dr. Sangeeta K. Barwal & Priyanka Sharma 47

EDUSEARCH						
ISSN: 0976 - 1160						
Vol 4. No. 1. April-2013						

Academic Achievement of High School Students in relation to their Mathematics Anxiety

Dr. Sangeeta K. Barwal * & Priyanka Sharma **

Abstract

The present study investigates the academic achievement of high school students in relation to their mathematics anxiety. Sample of the study consisted of 200 high school students belonging to Mandi district of Himachal Pradesh. Mathematics anxiety scale for children was developed by the investigator for data collection and marks obtained in previous examination were considered as the score of academic achievement. Analysis and interpretation of data was carried out by using t-test and coefficient of correlation 'r'. The major findings of the study are that there exist no significant difference in academic achievement scores of boys and girls, rural and urban and mathematics anxiety scores of rural and urban high school students. Results further revealed that there exists significant difference in mathematics anxiety of boys and girls high school students. There exists highly significant relationship between academic achievement and mathematics anxiety of high school students.

Introduction

Education, the foremost weapon for social reform, is now under the forces of change. Newly formed branches of knowledge and the techniques of education and the techniques of knowledge facilitate the physical, mental and emotional development of the learners. Schools have an unavoidable role in acquainting the students with the nature of changing field of education and in making necessary changes in the instructional techniques. In the modern world of technological innovations, all educational institutions are trying to improve their quality in terms of facilities and academic outputs.

Education plays a significant role in

everyone's life. All school subjects like -Science, Mathematics, Hindi, Social Study and English etc. are equally important for every student. But knowledge of mathematics is very essential in everyone's life because it is useful in our day-to-day activities without this life cannot be imagined. Mathematics is also known as, "Ganita", which means "science of calculation". It is the science of numbers and space, science of measurement, quantity and magnitude that helps us in solving the problems of life needing numeration and calculation.

The importance of Mathematics is very much increased and its uses are indispensable in every walk of life. Mathematics is essential for the existence and progress and progress of the world. The era of competition makes students more anxious and the eagerness of whether they can pass in exams or perform well in academic activities may adversely affect the mental health of the students.

Mathematics Anxiety

Mathematics anxiety is an emotional problem, and often leads to avoidance of mathematics by those who experience it; often students who are anxious, bored, and fearful towards mathematics or who do not comprehend the importance of mathematics in professional and personal life are the most likely to avoid the study of mathematics, so mathematics anxiety in students has become a concern for our Indian Society.

Mathematics anxiety is a phenomenon that is often considered when examining students' problems in mathematics. Mathematics anxiety is a feeling of tension, apprehension, or fear that interferes with maths performance. It is related to poor maths performance on maths achievement tests and that math anxiety is related to negative attitudes concerning maths. It is directly connected with mathematics avoidance. Highly anxious mathematics students will avoid situations in which they have to perform mathematical calculations. Unfortunately mathematics avoidance result in less competency, exposure and math practice, leaving students more anxious and mathematically unprepared to achieve.

Mathematics should be visualized as the vehicle to train a child to think, reason, analyze logically. There is hardly anyone who doesn't experience some amount of fear and phobia, be it young or old, rich or poor, learn or ignorant, etc. It may be fear of failure, performance in public, fear of criticism, fear of looking small in the eyes of the other. Mathematics anxiety is an extremely irrational fear of mathematics. It is consequence of a continuous failure in either understanding or scoring good marks of mathematics, It is an intense fear of failure in every branch of mathematics.

Review of Related Literature

Asutosh (1989) conducted a study of some affective outcomes of the students as predictors of their mathematical ability and find out that there exists significant correlation between Mathematics and achievement.

Namarta (1992) in her study entitled "The relationship of personality traits, Situation stress and Anxiety factors of students achievement." and found that the students having lower level of anxiety tended to score higher in the school examinations.

Rosaly (1992) has found that the attitude of high school students towards the learners mathematics and their achievement in mathematics are highly correlated and that urban boys and girls have a more positive attitude towards mathematics than rural boys and girls.

Vijayalakshmi and Lavanya (2006) in his study entitled. "Relationship between stress and Mathematics Achievement among intermediate students and found that 60% of the students are feeling high stress in the total sample. Male students have more amount of stress than female students and there exists negative and low correlation between students stress and Mathematics achievement.

Ramakrishna (2007) in his study entitled "Affect of Anxiety level of M. Ed. students on Academic Achievement" and found that sex was significantly related to anxiety. Girls exhibited more general anxiety as well as test anxiety than the boys.

Saha (2007) in his study and entitled "Gender attitude to Mathematics, cognitive style and Achievement in Mathematics and founds that the boys scored significantly higher than the girls on all the variables. Academic Achievement of High Schoolby Dr. Sangeeta K. Barwal & Priyanka Sharma 49

Raj (2009) in her study entitled "Mathematics anxiety, Mathematics performance and Academic Hardiness in high school students and found that there are significant gender difference between boys and girls in mathematics anxiety.

Mahmood and Khatoon (2010) conducted a study on gender, Anxiety and achievement in Mathematics: Study in selected high school in western Uttar Pradesh. Purpose of the study is to investigate the relationship, if any, between a set of independent Variables and mathematics achievement and mathematics anxiety and concluded that, this study gives ample evidence that nearly half of population of secondary school students have moderate level of math anxiety Reddy Sarsani and Maddini Conducted study (2010)а on of Achievement in Mathematics secondary school students in selected variables and found that; There is influence of locality on the performance in mathematics scholastic Achievement and girls performed better than boys in mathematics scholastic Achievement.

Objectives of the Study

The main objectives of the study are

- 1. To find out the difference in academic achievement of boys and girls high school students
- 2. To find out the difference in academic achievement of rural and urban high school students.
- 3. To find out the difference in mathematics anxiety of boys and girls high school students.
- 4. To find out the difference in mathematics anxiety of rural and urban high school students.
- 5. To find out the relationship between academic achievement and mathematics anxiety of high school students.

Hypotheses of the Study

The following null hypotheses have been formulated for the present investigation.

- 1. There is no significant difference in academic achievement of boys and girls high school students.
- 2. There is no significant difference in academic achievement of rural and urban high school students.
- 3. There is no significant difference in mathematics anxiety of boys and girls high school students.
- 4. There is no significant difference in mathematics anxiety of rural and urban high school students.
- 5. There is no significant relationship between academic achievement and mathematics anxiety of high school students.

Method of Study

Survey type of research was used in the present study. Thus, it is a descriptive type of research.

Sample Selected for the Study

This study was carried out on 200 high school students of standard X. These students were selected randomly from four different high schools of Mandi distt. of Himachal Pradesh. While selecting the sample due consideration was given to variables such as gender and locality. Therefore, the investigator has selected four different high schools in which two schools from rural and two from urban areas were selected.

Tools Used in the Study

For the present investigation, the investigator used the Mathematics Anxiety Scale for children as developed by the investigator herself. This questionnaire contains 200 items in form of Yes or No. The Academic achievement score was considered as the marks obtained by the students in the previous class.

Statistical Technique Used

The researcher used t-test and Pearsons coefficient of correlation-r in order to analyze and interpret the data.

Analysis and Interpretation of the Data The data thus obtained and analyzed by using 't' test and Peasrson's coefficient of correlation and the results obtained have been presented below.

An analysis of table 1 reveals that the mean scores of mathematics anxiety of boys and girls are found to be 20.4 and 21.11 with the standard deviation 3.9 and 3.6 respectively. The obtained t- value was 2.5 which is significant at 0.01 level. It does not support null hypothesis i.e. there is no significant difference in mathematics anxiety of boys and girls high school learners was rejected From this, it might be concluded that the obtained mean scores of boys high school learners was more than that of girls high school students. Hence, boys high school

students had more mathematics anxiety than the girls high school learners.

An analysis of table 2 reveals that the mean scores of mathematics anxiety of rural and urban high school students are found to be 20.4 and 20.3 with the standard deviation 3.8 and 3.5. When such values are subjected to testing of their significance of difference, the 't' ratio was found to be 0.37. The table value of t with 198 degree of freedom is 1.97 and 2.60 at 0.5 and 0.1 level of significance. As the calculated value of 't' is found to be less than the table value of 't' at both the levels, therefore, the calculated t value is found to be non-significant.

Ta	ble	1

Significance of difference between mean scores of mathematics anxiety of boys and girls high school students.

Category	N	М	S D	SE	df	't'	Remarks
Boys	105	20.4	3.9	0.280	198	2.5	Significant
Girls	95	21.11	3.6				

Tal	ble	2

Significance of difference between mean scores of mathematics anxiety of rural and urban high school students.

Category	N	М	SD	SE _D	df	't'	Remarks
Rural	98	20.4	3.8	0.267	198	0.37	NotSignificant
Urban	102	20.3	3.5				

le 3

Significance of Difference Between Mean Scores of Academic Achievement of Boys and Girls High School Students.

Category	N	м	S D	SE _D	df	't'	Remarks
Boys	105	459.41	65.718	9.56	198	1.51	NotSignificant
Girls	95	473.9	69.180				

Table 4

Significance of Difference Between Mean Scores of Academic Achievement of Rural and Urban High School Students

Category	N	м	S D	SE _D	df	't'	Remarks
Rural	98	457	72.50	9.5	198	0.85	NotSignificant
Urban	102	465.1	62.60				

Academic Achievement of High Schoolby Dr. Sangeeta K. Barwal & Priyanka Sharma 51

Therefore, the null hypothesis "There is no significant difference in mathematics anxiety of rural and urban high school students was accepted. In other words, it may be concluded that the mathematics anxiety of rural and urban high school students do not differ significantly. They have almost equal level of mathematics anxiety.

An analysis of table 3 reveals that the mean scores of academic achievement of boys and girls are found to be 459.41 and 473.90 with the standard deviation 65.718 and 69.180. . As the calculated value of 't' is found to be less than the table value of 't' at both the levels, therefore the calculated t value is found to be non- significant. Therefore the hypothesis i.e. "There is no significant difference in academic achievement of boys and girls", was accepted. In other words, it may be concluded that the academic achievement of boys and girls high school learners do not differ significantly and the boys and girls have possess almost the same degree of academic achievement.

An analysis of table 4 reveals the mean scores of academic achievement of rural and urban high school students are found to be 457 and 465.1 with the standard deviation 72.50 and 62.60 and 't' value is found to be 0.85 which is non-significant. Therefore the hypothesis "There is no significant difference in academic achievement of rural and urban high school students was accepted. In other words, it may be concluded that the academic achievement of rural and urban high school students do not differ significantly. They have almost equal level of academic achievement.

An analysis of table 5 reveals that both the variables were correlated, the coefficient of correlation was found to be 0.847.

It shows that there is significant relationship between the academic

Table 5
Relationship between mathematics
anxiety and academic achievement of
high school students

Variable	N	r	Remarks
Mathematics	200		
Anxiety		0.847	Significant
Academic	200		
Achievement			

achievement and mathematics anxiety. Therefore, the hypothesis "There is no significant relationship in academic achievement and mathematic anxiety of high school students is rejected and it can be concluded that there exist highly significant relationship between mathematics anxiety and academic achievement of high school students.

Major Findings

Major findings of the study are ;

- 1. There was significant difference in mathematics anxiety of male and female high school students i.e. female high school students have more mathematics anxiety in comparison to male students.
- 2. There was no significant difference in the academic achievement of male and female and rural and urban students and mathematics anxiety of rural and urban high school students.
- 3. There exists highly significant relationship between academic achievement and mathematics anxiety of high school students. It shows that mathematics anxiety affects the academic achievement of high school students

Educational Implications

Teachers should enhance the interest of students towards mathematics by creating creative environment and bring desirable changes in their method of instruction and establishment of good relationship.

REFERENCES

- Dandpani, S. (2004) A Text Book of Advanced Educational Psychology, New Delhi: Anmol Publications.
- Garrett, Henery E. (2011) Statistics in Psychology and Education. New Delhi: Paragon International Publishers.
- Hembree R(1990) The Nature, Effects, and Relief of Mathematics Anxiety. Journal of Research in Mathematics Education, 21(1):33-46.
- Hembree, R. (1990) The nature, Effects and Relief of Mathematics Anxiety. Journal of Research in Mathematics Education, 21(1), 33-96.
- Kaul, L(2006)"Methodology of Educational Research", New Delhi Vikas Publishing House.
- Mahmood,S. Khatoon, T.(2010) "Gender, Anxiety and achievement in Mathematics: Study in selected high school In western Uttar Pradesh. EDUTRACKS: A Monthly scanner of Trends in Education: Vol.9,No.3,p-25.
- Mahmood, S., Khatoon, T. (2010) Gender, Anxiety and Achievement in Mathematics: Study in Selected High School in Western Uttar Pradesh.Edutracks, Monthly Scanner of Trends in Education. Vol 9(3), 25.
- Namrata (1992) The Relationship of Personality Traits, Situational Stress and Anxiety Factors of Students Achievement. Fifth survey of research in education New Delhi:NCERT, VolII,p. 1992.
- Raj, K. (2009) Mathematics Anxiety, Mathematics Performance and Academic Hardiness in High School Students – International Journal of Education and Science.Vol-I(1), 33-37.
- Ramachandran, R. (1990) A Study on the Relationship between Performance and Other Psychological Variables ,reasoningAnxiety and Adjustment. Fifth survey of research in education New Delhi: NCERT, Vol-II, p.1902.
- Ramakrishna, A. (2007) "Effect Of Anxiety Levels Of M.Ed Students On Academic Performance." EDUTRACKS: A Monthly scanner of Trends in Education. Vol. 7, No. 4, p.35.
- Reddy M.S. & Maddini,R. (2010) "Achievement in Mathematics of Secondary School Students in Selective Variables, EDUTRACKS, : A Monthly scanner of Trends in Education Vol. 9-NO.6. pp.38-43.
- Rosaly. A.(1992) "The relationship between attitude of students towards mathematics and achievement. Fifth Survey of research in Education New Delhi: NCERT,Vol.11, p 1290.
- Saha, Subrata (2007) "Gender Attitude to Mathematics, Cognitive Style and Achievement in Mathematics" EDUTRACKS, A Monthly scanner of Trends in Education Vol.7-No.5. pp.17-19

Tandon, R.R. (2004) Child Psychology: New Delhi. A.P.H. Publishing Corporation.

Vijyalakshmi. V, Lavanya. P (2006) "Relationship between stress and Mathematics Achievement among intermediate students" EDUTRACKS: Vol.11,No.8,pp.34.

* Dr. Sangeeta Barwal: Asstt. Prof., Krishma PG College of Education, Vill. Dadour, PO. Dhaban, Distt. Mandi. (H.P.) e-mail : drsangeeta92@gmail.com

** Priyanka Sharma: Research Scholar, Krishma PG College of Education, Vill. Dadour, PO. Dhaban, Distt. Mandi. (H.P.) Academic Achievement of Students with respect toby Dr. Vani Subramanyam



Academic Achievement of Students with respect to Parent-Child Relationship and Ordinal Number

Dr. Vani Subramanyam *

Abstract

Parents are normally over anxious about their children's scholastic performance. Some of the parents who have not been successful in their life expect a lot from their children to see their unfulfilled dream coming true through their children. This puts undue pressure on child. Some parents are over protective while others are not. Some are very loving towards their child while others not. Some parents reprimand child and give punishment on achieving poor grades. Few parents give rewards or motivate the child on scholastic achievement. Father or mother, boy or girl, medium of instruction of school all play important role in this regard. The present study has revealed that parent-child relationship do contribute to the child's academic achievement. Specifically, the result of the study revealed that mother's protecting nature and her punishing tendency contribute more to the child's academic achievement than the father.

Introduction

Sigmund Freud focuses his attention on many developmental concepts such as libido, infantile sexuality, Oedipus or castration complexes as related to and developed out of the relationship with the family. Difference between one family and another then comes to be viewed as a major source of variation from individual to individual in the aspects of personality and social psychological development of children. The psychoanalytic thought has been putting increasing emphasis on the importance of social pressures on the developmental process. The stress has been shifted from Freud's instinctual factors to environmental, as social determinants of behavior. The neo-Freudian thinkers have recognized this

shift in the understanding of child socialization and indicated the implications of familial and parental antecedent variables as of invaluable contribution to the study of child development.

There is another set of variables, which are difficult to be classified under any one of the two theories of learning and psychodynamics of child development. The dimensions like "Permissive versus restrictiveness" or "Control versus support" has emerged out as pattern variable and are extensively used. This is because; the determining factor in an individual's reaction to his environment is his attitudes and behavior, which depend on his response to "his" perception of his family. It is in this

context that several researches emphasize that it is inappropriate to elicit information about one's perception of his family or his parent as a unit; an individual may very well have quite different feelings and attitudes regarding each member of the family and an adolescent's perceptions of his interaction with his mother and father should be studied separately.

Parents are normally over anxious about their children's scholastic performance. Some of the parents who have not been successful in their life expect a lot from their children to see their unfulfilled dream coming true through their children. This puts undue pressure on child. Some parents are over protective while others are not. Some are very loving towards their child while others not. Some parents reprimand child and give punishment on achieving poor grades. Few parents give rewards or motivate the child on scholastic achievement. Some parents are very demanding while others are indifferent. Therefore, study of parent child relationship on academic achievement of child is of great importance. Results of literature survey through journals, books and internet suggests that various factors of parent child relationship with respect to order of birth of child in the family has effect on academic achievement of child. Father or mother, boy or girl, medium of instruction of school etc. all play important role in this regard.

Children learn culturally and socially approved behavior through parental child rearing practices (*Bose*, 1984). Parents are helpful in providing intellectual pursuits to their young children. *Bradbard* and *Endsley*(1980) revealed that adults can be instrumental in fostering and maintaining children's curiosity by being attentive, sensitive, supportive of children's need to explore by answering children's questions and by displaying the positive characteristics . The fact is further proved and supported by *Sears et.al.*, (1981) who emphasized that every moment of child's life that he spends in contact with parents has some effect on both his present behavior and his potentialities for future actions. Birth order is an important determinant of success. *Frank J Sulloway* (1996)stated that children are molded to a far greater degree by the relationship with their siblings than by their relationship with parents.

Size of the family (small or big) is positively correlated to Child's birth order. Black Devereux and Salvanes(2007) advance that "the family size itself has little effect on quality of each child but more likely impacts the marginal children though the effect of birth order". Hanushek(2005) has done study on using samples of low income, black families from Indiana, USA, between child quantity and quality by comparing the scholarly performance of children from smaller families with those from large families with respect to birth order. It was observed that family size affects each child differently depending upon child's birth order.

Objectives

Objectives of the present study are:

- i) To study the effect of attributes of Parent Child Relationship (as measured on Parent Child Relationship Scale) on the academic achievement of 9th grade students.
- ii) To study the effect of ordinal number of the child in family with respect to attributes (as measured on Parent Child Relationship Scale) of Parent Child Relationship on academic achievement.

Research Questions

With a view to investigate the study scientifically, the investigator formulated the following Research Questions;

1. Is the attributes of parent-child relationship effect the academic achievement of 9th grade students? Academic Achievement of Students with respect toby Dr. Vani Subramanyam

2. Would there be any effect of ordinal number on the academic achievement of 9th grade students?

Sample

A sample of 100 students from 4 English medium schools and 4 Hindi medium schools of Bhilai were selected for the study.

Tools Used

For collection of data, Parent Child Relationship Scale (PCRS) developed by Dr. Nalini Rao was used. The tool contains 100 items categorized into ten dimensions (attributes of parents) namely, protecting, symbolic punishment, rejecting, object punishment, demanding, indifferent, symbolic reward, loving, object reward and neglecting. There are two forms to be filled concerning with attributes as father form and mother form.

Students' year end eaxamination scores have been taken as Academic Achievement.

Statistics Used

The collected data was processed under SPSS software package to find out the effect of the attributes of parent-child relationship on academic achievement of the selected sample. The result is shown below in table 1.

The total effect of various variables on academic achievement is approximately 16%. Hence, it is interpreted that parent child relationship as measured on PCRS scale did not have significant effect on academic achievement of students expect for mother's protecting nature (**PROM**) and object punishment (**OBPM**) on the sample taken for study.

To study the research question 2, computation of beta value is done and shown in table 2.

The percentage value (24%) denotes the relationship of medium of instruction on academic achievement which has some difference between both mediums and affecting academic achievement.

Table 1 Effect of Identified Variables (Attributes) on Achievement.

Varia	Alpha	Beta	Alpha x Beta
bles			x 100 (%)
Sex	.265	.338	8.96 (9% app)
Protecting	.172	.240	4.13 (4% app.)
Mother			
(PROM)			
Object	.129	.211	2.72 (3%app)
Punish			
Mother			
(OBPM)			

Table 2Contribution of DemographicVariables on Academic Achievement.

Variables	Alpha	Beta	Alpha x	%
			Beta x 100	
Medium of	0.83	0.29	24.13	24
instruction				
(H/E)				
Ordinal	0.064	0.59	3.766	4
number				

The percentage value (4%) in the table denotes the determining effect of ordinal number (birth order) on achievement , which is minimal in determining achievement.

Results

Following are the results of the study;

- 1. The dependent and Independent variables processed under SPSS program has identified only 3 subvariables to have determining effect on academic achievement.
- 2. The 3 identified factors are 'gender' [female (girls) \ male (boys)] and 'protection' from mother's form and 'object punishment' from mother's form. Rest of the attributes have no significant effect on dependent variable.
- 3. The result says that mother is playing important role than the father as the

no attribute from father form is contributing the sample's academic achievement. Protecting nature of mother and being strict with punishment have identified attributes which contribute to the academic achievement of their children.

REFERENCES

- Bose, C (1984)" Family Violence", *Journal of Personality & Social Psychology*,33,663-673.
- Brandbard et.al(1980) "the influence of gender, sterio- types on children's performance"., *Books.Google.books.co.in*, ISBN-0549400400.
- Devereux, B & Salvanes(2007)" Older or Wiser? Birth order and I Q of young men", CESifo *Economic studies*, Oxford University Press, Vol.57(1),Pages 103-120.
- Hanushek, E. A (2005)" Teachers, Schools and Academic achievement", *Econometrica*, Vol.73, No.2, 417-458.
- Sears et.al (1981)" Patterns of Child Rearing", Stanford University Press, ISBN-9780804709163.
- Sulloway, F.J. (1996)" Born to Rebel: Birth Order; *Family dynamics and creative lives*: New York: Pantheon.

* Dr. Vani Subramanyam : Principal, Bhilai Maitri College, Bhilai. Distt. Durg., Chhattisgarh. e-mail id: dr vani subramanyam@yahoo.co.in

A Study on Parental Relationship, Involvementby Kiranjeet Kaur



A Study on Parental Relationship, Involvement and Pressure as Correlates of Achievement Motivation among Engineering Students

Kiranjeet Kaur *

Abstract

The present study aimed at analyzing the role of parents in relation to achievement motivation among students pursuing engineering courses. Total sample of 559(305 boys and 254 girls) engineering students was taken from different engineering colleges of Punjab (India). This study is focused at investigating how parental relationship with their children, involvement in their children's activities and pressure to achieve high were related to achievement motivation among engineering students. Pearson Product Moment correlation was applied. The results of the study revealed that Parental Acceptance and Parental Concentration related positively with achievement motivation among engineering students, whereas, Parental Avoidance was found to be negatively related to achievement motivation among the same. Also parental involvement was found to be a significant correlate of achievement motivation among these students. However, the parental pressure to achieve was not found to be related to achievement motivation among these students. Besides, the results also revealed that the gender of parents as well as of the students also influence the relationship between the variables taken in the study and achievement motivation.

Introduction

Achievement motivation is defined as a desire for significant accomplishments for mastering skills or ideas for control and for rapidly attaining high standards. Several diverse strands of research provide support for the idea, that parents contribute to, how children tackle issues of achievement that arise as children progress through life (*Frome and Eccles*, 1998; *Grolnick*, 2003). Also, the motive to achieve has its origin in early childhood experiences. Thus, parental role and hence their expectations have substantial impact on ones achievement related

behaviour (McClelland, 1951). Further, McClelland (1961) also related need for achievement to child-rearing practices. According to him, the boys relatively high in need for achievement had mothers, who expected their sons to be self-reliant and independent at an early age than mothers, whose sons were low in need achievement. for Besides, the adolescents, with high need for achievement, often report that their parents were not particularly warm individuals. who emphasized achievement rather than affiliation. A number of researchers within the field of achievement motivation have examined how parental variables relate to children's learning behaviours, expectations for success, and achievement outcomes. Primarily, these variables include parenting style, parental involvement and attributions for success and failure or academic expectations.

The most critical way, through which parents influence their children, is through their parenting styles. Parenting can be defined, as the way, in which parents construct, interpret and form relationships, adopt child-rearing practices and create child-rearing environments in interactions with their children (Gerris, 2001). Aunola et al. (2000) reported that adolescents from authoritative families applied most achievement strategies adaptive characterized by low levels of failure expectations, task-irrelevant behaviour and passivity and the use of selfenhancing attributions. On the other hand, adolescents from neglectful families applied maladaptive strategies characterized by high levels of taskirrelevant behaviour, passivity and a lack of self-enhancing attributions. Gonzalez et al. (2002) reported that maternal authoritativeness was related to a mastery orientation, whereas, maternal authoritarianism and permissiveness were related to a performance orientation. Further, Manley (2006) Copyright 1977 Human Sciences Pressreported that parental warmth seemed to operate differently upon girls' and boys' achievement orientation. Moderate maternal warmth and even slight hostility were related to strong achievement orientation in girls, while high maternal nurturance and affection were associated with strong achievement orientation in boys. Abar et al. (2009) highlighted that authoritative parenting was associated with high levels of academic performance. Further, the educational research has led

to the general conclusion that parental involvement in varied forms is an factor in promoting important achievement motivation among children. Lamborn et al. (1992) proposed an explanation for the relationship between parental involvement and student motivation, by stating, that students were motivated by seeing their parents taking interest in school. Gonzalez et al. (2002) emphasized that parents in particular are an important source of academic advice, encouragement, and assistance for many children. Ratelle et al. (2004) concluded students characterized that by problematic motivational trajectories, perceived their parents to be less involved, in their scholastic work and less autonomy supportive than those of other students. Hong and Ho (2005) indicated that the parental involvement, in terms of communication and educational aspiration for children, enhanced students' educational aspiration and students' locus of control. Also, Duchesne and Ratelle (2010) demonstrated that parental involvement predicted mastery goals, whereas, parental control predicted performance goals among these adolescents.

Various researchers have found that parental expectations were predictive of children's achievement motivation. Fan and Chen (2001) reported that parental expectations had the strongest relationship to children's school performance. Pomerantz, et al. (2006) emphasized that mothers' masteryoriented practices, while assisting with predicted homework, enhanced psychological functioning, both concurrently and longitudinally, only among children with negative perceptions of their academic competence. Friedel et al. (2007) indicated that child's perceptions of, parents' mastery and performance goal emphases, predicted children's personal achievement goals.

Benner and Mistry (2007) reported that high expectations of mothers had a generative effect on youth outcomes, and whereas, low mother's expectations had a disruptive effect. If parental pressure to achieve is perceived as restrictive, using fear to motivate academic success, higher levels of anxiety and depression can be predicted (Lau and Yeung, 1996). In nutshell, parental attitudes and messages about achievement have an important role in influencing children's views about achievement and on achievement outcome. The individuals whose parents provide a cognitively stimulating home environment tend to perform better in the classroom. Further, parental expectations have substantial effect on academic pursuits and achievement motivation of children. Thus, parents play a significant role in shaping orientation of children's toward achievement motivation.

Objectives

The following are the objectives of teh study;

- a) To study the relationship between Achievement Motivation and Parental Relationship.
- b) To study the relationship between Achievement Motivation and Parental emphasis on achievement.
- c) To study the relationship between Achievement Motivation and Parental Pressure to Achieve.

Methodology

Sample

In the present study, the total sample consisted of 559 engineering students (305 boys and 254 girls) of age ranging between 17-23 years. The sample was taken from various engineering colleges of Punjab (India). Care was taken that the colleges so chosen were more or less homogenous with regard to socioeconomic, cultural background and academic milieu. The sampling technique was incidental in nature.

Psychological Measures

The following tests were used to achieve the objectives of the present study as mentioned in the section 3.

i) Deo-Mohan Achievement Motivation (n-Ach) Scale – (*Deo and Mohan*, 1985) This is a self- rating type scale which is used to measure achievement motivation. The scale consists of 50 items, 13 are negative and 37 are positive items. The items of the scale are based on three factors i.e. academic factors, factors of general interest and factors of social interest. The scale is a reliable and valid one. The authors reported reliability coefficient 0.69 (p<.01) for mixed group, 0.67 (p<.01) for males and 0.78 (p<.01) for females' sample and of validity, the coefficient was 0.75 (p<.01).

ii) Family Relationship Inventory (FRI)– (Sherry and Sinha, 1987)

Sherry and Sinha (1987) prepared this inventory on the basis of Brunken and Crites's Family Relationship inventory. The inventory contains 150 items classified into three patterns of parental attitude i.e. Acceptance, Concentration and Avoidance, separately for mother and father. The reliability coefficient of Parental Acceptance is 0.56 (p<.01), of Parental Concentration is 0.44 (p<.01) and of Parental Avoidance is 0.85 (p<.01). **iii) Parental Emphasis on Achievement Scale-** (Brown et al., 1993)

This scale assesses the adolescent's perception of the degree to which parents encouraged and expected their children to do well in school. The scale consists of 10 items. Respondents answer the all these items twice – once for their mother and again for their father. The scores of all the items are summed to obtain an overall score on the scale. The reliability coefficient of the scale is .84 (p<.01).

(iv) Inventory of Parental Influence (IPI) - (*Campbell*, 1994)

The IPI consists of a series of subscales designed to identify family members'

perception of the family processes i.e. Parental pressure, Psychological support, Parental help, Emphasis on intellectual development, and Monitoring/time management. In the present study, the questions related to the first factor were used to identify students' perceptions of the pressure that they perceive from their parents to achieve academically.

The instrument assesses parental pressure as a single measure. It is likely that mothers and fathers vary in their levels of achievement orientation for their children. To explore the relevance of parent gender, the IPI was modified for this study to replace each question about parents with separate questions for fathers and mothers, retaining the wording of the original items except for references to "mother" or "father" rather than "parents." A total Pressure score is calculated by adding the responses to all IPI questions. Father' Pressure score and Mother's Pressure score are calculated separately. Reliability for the IPI Pressure Factor has been established using Cronbach's alpha and is .96(p<.01).

Procedure

Before administering the tests, a rapport was established with the subjects. The subjects were administrated all the above-mentioned tests and separate instructions were given for each test. Tests were conducted in groups of 15-30 subjects.

Statistical Analysis

Pearson Product Moment Correlation was applied to find out the relationship between Parents related variables taken in study and Achievement motivation among the sample under study.

Results And Discussion

The present work aimed at studying the role of Parental Relationship with Children, Parental involvement and Parental Pressure to Achieve High in relation to Achievement Motivation among Engineering Students. But before administering these abovementioned psychological measures, test-retest method was used to estimate reliability of psychological measures. The retesting was done after fifteen days of first testing. For this purpose a mixed sample (both boys and girls) size (N) of 30 students was taken. The reliability coefficients of all the measures have come out to be quite satisfactory and are given in Table 1.

The Table 1 shows that the reliability coefficient of Deo-Mohan achievement score is 0.84, thus indicating good reliability. Family Relationship Inventory also reveals high reliability, as coefficient of its dimensions range from 0.61 to 0.87. Parental emphasis on achievement scale has also come out to be reliable, as reliability coefficients of its dimensions range from 0.80 to 0.87. Inventory of Parental Influence shows high reliability

Table 1: Showing the Test-Retest Reliabilities for Various Variables under Study

Sr N.	Variables	Test-Retest Reliability
1	Achievement Score	0.84**
2	Father's Acceptance	0.83**
3	Mother's Acceptance	0.87**
4	Father's Concentration	0.69**
5	Mother's Concentration	0.61**
6	Mother's Avoidance	0.87**
7	Father's Avoidance	0.83**
8	Father's Emphasis on	
	Achievement	0.87**
9	Mother's Emphasis on	
	Achievement	0.80**
10	Father's Pressure to	
	Achieve	0.83**
11	Mother's Pressure to	
	Achieve	0.85**

**Significant at .01 level

Table 2:Showing Mean scores, Standard deviations (SD), Skewness and Kurtosis of
the Variables Understudy

Sr.	Variable	Boys (N=305)			Girls (N=254)				
		Mean	SD	Skew	Ku.	Mean	SD	Skew	Ku.
1	Achievement Motivation	131.1	20.33	-0.93	3.45	142.2	17.8	-0.07	-0.484
2	Father's Acceptance	17.74	4.05	-1.001	0.94	18.69	4.08	-1.09	1.004
3	Mother's Acceptance	19.49	3.19	-0.60	0.11	20.35	3.23	-1.12	2.01
4	Mother's Concentration	13.36	3.01	-0.39	-0.09	13.18	2.88	-0.02	-0.37
5	Father's Concentration	10.32	3.18	0.08	0.12	9.89	3.16	0.01	0.35
6	Mother's Avoidance	7.84	5.06	0.66	0.0	6.46	4.77	0.85	0.59
7	Father's Avoidance	8.19	4.23	0.32	-0.45	6.73	4.14	0.79	0.07
8	Father's Emphasis	34.34	7.72	-0.65	0.11	36.11	7.37	-0.51	-0.04
	on Achievement								
9	Mother's Emphasis	36.07	7.22	-0.72	0.22	38.36	7.16	-0.53	-0.48
	on Achievement								
10	Father's Pressure	37.80	7.74	0.02	0.51	34.65	8.36	-0.26	0.25
	to Achieve								
11	Mother's Pressure	37.98	8.41	0.66	3.69	34.39	8.80	-0.17	0.134
	to Achieve								

too, as reliability coefficients of its dimensions range from 0.83 to 0.85. Overall, we can say that all the instruments are psychometrically sound enough to be used for research purpose. Further, Means, Standard Deviations, Skewness and Kurtosis of all the measured variables were calculated and have been reported in Table 2. As the skewness was quite small in most of the cases, therefore, data were amenable to statistical analysis. As the present study aimed at studying relationship between parental role and achievement motivation among engineering student, hence Pearson Product Moment Correlation was applied. Table 3 shows the intercorrelations of various variables taken in study with achievement motivation among both boys and girls.

Thus, these results highlight that parents play a crucial role in influencing achievement motivation among engineering students. The correlation coefficients suggest that parental acceptance was related to achievement motivation among both boys and girls pursuing engineering. Thus, the

Table 3: Showing Correlations of Variables under Study with Achievement Motivation for the Engineering Students

Sr.	Variable	Achievement		
		Motivation		
		Boys	Girls	
1	Mother Acceptance	.15**	.11*	
2	Father Acceptance	.15**	.19**	
3	Mother's Concentration	.11*	.21**	
4	Father's Concentration	.08	.16 **	
5	Mother's Avoidance	.02	16 **	
6	Father' Avoidance	03	13*	
7	Father's Emphasis			
	on Achievement	.18**	.28**	
8	Mother's Emphasis			
	on Achievement	.17**	.29**	
9	Father's Influence	.02	.04	
10	Mother's Influence	.04	.05	

* p< 0.05 level & **p< 0.01 level

acceptance was related to achievement engineering students, who perceived that motivation among both boys and girls their parents encouraged them to fulfill pursuing engineering. Thus, the their potentialities and had acceptance attitude towards them, possessed high achievement motivation. *Gonzalez et al.* (2002) also emphasized that children's experiences of parenting style, emotional support or encouragement offered by parents had been linked to the achievement goals children espouse.

The results shown in Table 3 highlight that maternal concentration was a correlate of high achievement motivation among boys. It implies that the boys who perceived that their mother's devoted their time in encouraging and supporting them in their achievement related endevours, had high need to achieve, in comparison to, those boys, who did not get much attention of their mother. This result also highlighted that in comparison to father, mother's concentration was important in influencing more achievement motivation among boys. Further, the role of both the parents had been found to be crucial with regard to achievement motivation among the female engineering student, as parental concentration had been found to be significantly related to achievement motivation among girls. Similar results were reported by Ryan and Adams (1995). Table 3 reveals that parental avoidance was negatively related to achievement motivation among girls. Thus the disposition of parents to neglect or reject the child, and lack of manifestation of positive interest her activities led to low need for achievement among these female engineering students.

Further correlational pattern shown in Table 3 reveals that the parental emphasis on achievement was correlated with high achievement motivation among both boys and girls pursuing engineering. The parental emphasis on performing well in academic and co-curricular activities along with communicating their concern for achievement through their involvement in such activities resulted in high need to achieve among these students. Thus, parents facilitated their children to achieve high through their support, acceptance and encouragement. *Paik* (2004) also suggested that familyschool partnerships, after-school or weekend programs, supportive family and school conditions and practices as significant factors contributing to achievement. However, the Table 3 reveals that parental influence i.e. parental pressure to achieve high is not related achievement motivation among these engineering students.

Major Findings

Major Findings of the study are as follows: In case of male engineering students

- 1. Parental Acceptance i.e. Maternal Acceptance and Father's Acceptance is positively related to their achievement motivation.
- 2. Maternal Concentration relates positively with their achievement motivation, whereas father's concentration has not been found to be related to their achievement motivation.
- 3. Parental Emphasis on Achievement i.e. Father's Emphasis on Achievement and Mother's Emphasis on Achievement positively correlate with their Achievement Motivation.
- 4.Parental pressure to achieve has not been found to be related to their achievement motivation.
- In case of female engineering students
- 1.Parental Acceptance i.e. Mother's Acceptance and Father's Acceptance is positively related to their achievement motivation
- 2. Parental Concentration i.e. Mother's Concentration and Father's Concentration correlates positively with their achievement motivation.
- 3.Further, Parental Avoidance has been found to be negatively correlate with achievement motivation among these girls pursuing engineering.
- 4.Parental Emphasis on Achievement i.e. Mother's Emphasis on Achievement and

A Study on Parental Relationship, Involvementby Kiranjeet Kaur

Father's Emphasis on Achievement relate positively with their achievement motivation.

5.Parental pressure to achieve has not been found to be related to their achievement motivation.

Conclusions

Overall, the results suggest, parents have a significant role to play in determining achievement motivation of the students pursuing various engineering courses. They do so through their accepting attitude towards their children and by setting ambitious goals for them to achieve and also through their involvement in academic related activities of their children. Mothers' contribution to achievement motivation is found to be even more significant when, they devote their time to their sons, as well as, set ambitious goals for them to achieve. Besides, in case of female engineering students, parental rejection, lack of warmth and unrealistic expectations to achieve high are detrimental to their need for achievement. However, parental pressure to achieve high is not related to achievement motivation among engineering students.

REFERENCES

- Abar, B., Carter, K. L., & Winsler, A. (2009): The effects of maternal parenting style and religious commitment on self-regulation, academic achievement, and risk behavior among African-American parochial college students, *Journal* of Adolescence, 32(2), pp. 259–273.
- Aunola, K., Stattin, H., & Nurmi, J. (2000): Parenting styles and adolescents' achievement strategies, *Journal of Adolescence*, 23(2), pp. 205–222.
- Benner, A. D., & Mistry, R. S. (2007): Congruence of mother and teacher educational expectations and low-income youth's academic competence, *Journal of Educational Psychology*, 99(1), pp. 140–153.
- Brown, B. B., Lamborn, S. L., Mounts, N. S., & Steinberg, L. (1993): Parenting practices and peer group affiliation in adolescence, Child *Development*, 64, pp. 467–482.
- Brunken, R. J. and Crites, J. O. (1964): An inventory to measure the parental attitude variables in Roe's theory of vocational choice, *Journal of Counselling Psychology*, 11, pp. 3–12.
- Campbell, J.R. (1994): Differential socialization in mathematics achievement: Crossnational and cross-cultural perspectives, *International Journal of Education Research*, 21, pp. 685–696.
- Deo, P., & Mohan, A. (1985): Achievement motivation scale, Agra: National Psychological Corporation.
- Duchesne, S., & Ratelle, C. (2010): Parental behaviors and adolescents' achievement goals at the beginning of middle school: Emotional problems as potential mediators, *Journal of Educational Psychology*, *102(2)*, 497–507.
- Fan, X., & Chen, M. (2001): Parental involvement and students' academic achievement: A meta-analysis, *Educational Psychology Review*, 13, p. 122.
- Friedel, J. M., Cortina, K. S., Turner, J. C., & Midgley, C. (2007): Achievement goals, efficacy beliefs and coping strategies in mathematics: The roles of perceived parent and teacher goal emphases, *Contemporary Educational Psychology*, 32, pp. 434–458.
- Frome, P. M., & Eccles, J. S. (1998): Parents' influence on children's achievementrelated perceptions, *Journal of Personality and Social Psychology*, 74, pp. 435–
- Gerris, J. R. M. (2001): Introduction and overview, In J. R. M. Gerris (Ed.), Dynamics of parenting, Leuven, Belgium: Garant-Uitgivers, pp. 9-13.
- Gonzalez, A. R., Holbein, M. F. D., & Quilter, S. (2002): High school students' goal orientations and their relationship to perceived parenting styles, *Contemporary Educational Psychology*, 27, pp. 450–470.
- Grolnick, W. S. (2003): The Psychology of Parental Control: How Well-Meant Parenting Backfires, Hillside, NJ: Erlbaum.
- Hindin, M. J. (2005): Family dynamics, gender differences and educational attainment in Filipino adolescents, *Journal of Adolescence*, *28(3)*, pp. 299–316.
- Hong, S., & Ho, H. (2005): Direct and indirect longitudinal effects of parental involvement on student achievement: Second-order latent growth modeling across ethnic groups, *Journal of Educational Psychology*, 97(1), pp. 32-42.
- Kuperminc, G. P., Darnell, A.J., & Alvarez-Jimenez, A. (2008): Parent involvement in the academic adjustment of latino middle and high school youth: Teacher expectations and school belonging as mediators, *Journal of Adolescence*, 31(4), pp. 469–483.
- Lamborn, S. D., Brown, B. B., Mounts, N. S., & Steinberg, L. (1992): Putting school in perspective: The influence of family, peers, extracurricular participation, and part-time work on academic engagement, in Newmann, F. M. (Eds). *Student Engagement and Achievement in American Secondary Schools*, New York: Teachers College Press, pp. 153–181.
- Lau, S., & Yeung, P. P. W. (1996): Understanding Chinese child development: The role of culture in socialization, in Lau, S. (Eds), *Growing up the Chinese Way: Chinese Child and Adolescent Development*, Hong Kong: The Chinese University Press, pp. 29-44.
- Manley, R. O. (2006): Parental warmth and hostility as related to sex differences in children's achievement orientation, *Psychology of Women Quarterly*, 1(3), pp. 229–246.
- McClelland, D. C. (1951): Personality, New York: Wm. Sloane.
- McClelland, D. C. (1961): The Achieving Society, Princeton: Van Nostrand.
- Paik, S. J. (2004): Korean and US families, schools, and learning, *International Journal* of Educational Research, 41, pp. 71–90.
- Parke, R. D. (2002): Fathers and families, in M. H. Bornstein (Ed.), Handbook of parenting (2nd ed.), Being and becoming a parent, Mahwah, NJ: Erlbaum, pp. 27-73.
- Roe, A. (1957): Early determinants of vocational choice, *Journal of Counseling Psychology*, 4, pp. 212–217.
- Ryan, B. A., & Adams, G. R. (1995): The family-school relationships model, in Ryan,
 B. et al. (Eds), *The Family–School Connection: Theory, Research and Practice*,
 Beverly Hills, CA: Sage, pp. 3–28.
- Sherry, G. P., & Sinha, J. C. (1987): *Family Relations Inventory*, Agra: National Psychological Corporation.

* Kiranjeet Kaur : Asstt. Prof., Dept. Applied Scienses and Humanities, SBS State Technical Campus, Firozpur. Punjab e-mail : kamaljeet_puce@rediffmail.com A Study on Impact of Mother's Educationby Dr. Padma Gouri, G. & Shrivastava, Y.V. 65

EDUSEARCH						
ISSN: 0976 - 1160						
Vol 4. No. 1. April-2013						

A Study on Impact of Mother's Education on Academic Aspiration of Students at Secondary Level

Dr. Padma Gouri, G. * & Dr. Shrivastava, Y.V. **

Abstract

Aspirations of the children are regarded as deep inner hidden ambitions. Tender aspirations of children confirm their future. Here arises the question of different types of aspirations. There are different types of aspirations such as immediate aspirations, remote aspirations, academic aspirations, vocational aspirations, etc. Academic aspirations refer to the aspirations with regard to the academic field. These aspirations confirm his discipline of study. The inner inclination towards a particular occupation confirms his vocational aspirations. This type of aspirations confirms his interested field of work As mentioned above there are so many factors which effect the aspirations of children. In this series mother's role is really significant. The present study focuses to study the impact of mothers' education on academic aspirations of the students.

Introduction

Every child is unique in some or other way. Children's interests, attitude, ambitions and aspirations differ from one person to another. There are so many factors which effect children's interests, ambitions and aspirations etc. Family, parents, society, teacher all are regarded as important factors. With regard to parents, mother's role is also very much important. Aspirations of the children are regarded as deep inner hidden ambitions. Tender aspirations of children confirm their future. Here arises the question of different types of aspirations.

There are different types of aspirations such as immediate aspirations, remote aspirations, academic aspirations, vocational aspirations, etc. Academic aspirations refer to the aspirations with regard to the academic field. These aspirations confirm his discipline of study. It even helps him in excelling in his academics. In the same way vocational aspirations refers to the aspirations with regard to his occupation or field of work or profession. The inner inclination towards a particular occupation confirms his vocational aspirations. This type of aspirations confirms his interested field of work.

As mentioned above there are so many factors which effect the aspirations of children. In this series mother's role is really significant. The depth of the relation between the child and mother can not be described in words. Mother has an important role to play in the all round development of the child. If the mother is educated and well aware of the happenings in the world around, then she can guide her child in the right direction. Agrawal, Kusum (1986) investigated on the effect of parental encouragement on the educational development of students (Secondary stage). She finds that parental encouragement and educational development were found to be positively correlated. The girls belonging to urban as well as rural areas were significantly higher in parental encouragement in all the three groups as compared to their male counterparts. Singh, Sudhabala (1989) worked on personality of working and non working women with special reference to family adjustment and their impact on the education of their children. Her study revealed significant differences existed between working and non working women with regard to certain personality factors and no significant difference was found among children of working and non working women regarding scholastic achievement.

In a study by *Katherine & George* (1991) on differential Effect of Mothers' Education on Morality of Boys and Girls in India, it was found that improved mothers' education reduced mortality at all ages below five years for both sexes. Children whose parents attended school performed at a significantly higher academic level than the others and Parental education appears to be related to the academic achievement of students was the result of a study by Bhatnagar & Sharma (1992). Hence, an attempt is made to investigate the impact of mother's education on the academic and vocational aspirations of higher secondary school children studying in CGBSE schools of Raipur.

Objectives

Following are the objectives of the study 1) To study the academic aspirations of

students with respect of their gender, discipline and mother's education.

2) To study the effect of the mother's education on the academic aspirations of 11th graders.

Hypotheses

Hypotheses formulated for the study are-

- 1)There exists significant difference in the academic aspirations of 11th graders of Raipur city, studying in Chattisgarh Board of secondary education with respect of their gender, discipline and mother's education.
- There exists significant effect of the mother's education on the academic aspirations of 11th graders.

Sample

The sample of the study consists a total of **720** higher secondary school children studying in CGBSE schools of Raipur, which includes 60 (30 boys+30 girls) students of each three academic streams (Science, Commerce and Arts) and four levels of mother's education (Secondary, Hr. Secondary, Graduation and Post Graduation).

Tools Used

The tools used in this study are-

- Information sheet (self made to find out the education level of mother)
- Educational Aspiration Scale By Dr. V.P. Sharma & Dr. Anuradha Gupta

Statistics Used

The data collected is subjected to analysis on statistical method ANOVA.

Table 1 shows that sum of squares of mothers' education at df 3, the 'F' value is 28.13, disciplines of the study at df 2, the F value is 146.15and gender at df 1, the F value is19.54 which are significant at 0.01 level. It reveals that mother education has significant effect on the educational aspiration of children. Mothers' education, at all levels, has its effect on the educational aspiration of higher secondary school children. It shows significant effect of disciplines on aspirations and gender also has an effect on aspirations. The result also shows insignificant effect of mothers' education on gender.

Sr	Source		Sum of Squares(SS)	Mean Sum of Squares(MS	F values
1	Mother Education (SSA)	3	4750.47	1583.49	*28.13
2	Disciplines of Study (SSB)	2	16453.23	8226.61	*146.15
3	Gender (SSC)	1	1100.14	1100.14	*19.54
4	AXB Interaction (SSAB)		2057.35	342.89	*6.09
5	BXC Interaction (SSBC)		2420.15	1210.07	*21.49
6	AXC Interaction (SSAC)	3	152.52	50.84	**0.90
7	AXBXC Interaction (SSABC)	6	1451.42	241.90	*4.29
	Between Cells		28385.28	56.29	
	With in Cells	696	39182.27	-	
	TOTAL	719	67567.55		

Table 1The result of ANOVA for Mothers Education, Discipline of Study and Gender

*Denotes significance at 0.01 level, ** Denotes insignificance.

Rusults

1. It has been observed that mother's education has positive effect on the academic aspiration of higher secondary school children.

2. It has also been observed that mother's education has its impact up to graduation

level of mother's education. In case of gender, with regard to academic aspirations boys held higher academic aspirations. In the same manner, with regard to vocational aspirations girls possess higher level of vocational aspirations.

REFERENCES

- Agrawal Kusum (1986), A study of the Effect of Parental Encouragement on the Educational Development of Students (secondary stage), Ph.D , Education, Hemvati Nandan Bahuguna Garhwal University, Volume-II, Fifth Survey of Educational Research, 1988-1992, Page No.1175.
- Bhatnagar J.K & Madhu Sharma (1992), A study of the relationship between Parental Education and Academic Achievement in a semi rural setting, Volume-37, Page No. 2 & 3, 1992, Psychological Studies, Journal of National Academy of psychology, India, Page No. 126-130
- Kalherine L. Bourne & George M.Walker, Jr. (1991), The differential Effect of Mothers' Education on Morality of Boys and Girls in India, Population Studies, Vol. 45, No. 2, published by Population Investigation Committee, Page No. 203-2
- Singh, Sudhabala (1989), A comparative study of Personality of Working and Non Working Women with special reference to Family Adjustment and their impact on the Education of their children, Ph.D, Education, Agra University, Volume-II, Fifth Survey of Educational Research, 1988-1992, Page No. 1729.

* Dr. Padma Gouri, G. : Asstt. Prof., St. Vincent Pallotti College, Raipur. e-mail : padmaji_2006@rdiffmail.com
** Dr. Shrivastava, Y. V. : Ex Prof., Govt. College of Education IASE, Bilaspur. (C.G).

EDUSEARCH
ISSN: 0976 - 1160
Vol 4. No. 1. April-2013

A Study of Examination Stress in Post Graduate Students of Himachal Pradesh University

Dr. J. D. Singh *

Abstract

Examination is a necessary exercise in the process of education. It is a measure of educational achievement as an indication of the level of fulfillment of the objectives of education. It is clear that Examinations are an inevitable part of academic schedule. But, Written Examinations of University in their present form are not the real measure of students' potential because they cover only a small fraction of the course content that the students strive to learn over a period of one year. Present examination system exercises a heavy mental stress and strain on the students. Kothari Commission (1964-66) has also remarked that present examination cause unhealthy rivalries among the children. The fear of failure sometimes leads to extreme measures like suicide. Moreover, in the present examination system, only cram work is useful. One, who possesses good power of cramming, facts and texts, secures good marks rather than an intelligent, who could not cram but analyse in a proper manner. However if exams are taken too seriously, they can be a cause of stress, worry, and anxiety. Therefore, this Examination stress study can be helpful to contribute to a positive change in academic schedule and avoid any extreme outcomes like student suicides, etc.

Introduction

Stress is one of the body's natural responses to something that is threatening or frightening. It is something that we all experience from time to time. Many aspects of university life have the potential to cause stress, including adjusting to a new living environment, fulfilling academic requirements, developing friendships and preparing for and sitting exams. Unfortunately, the prolonged effect of the stress response is that the body's immune system is lowered and blood pressure is raised which may lead to essential hypertension and headaches. The adrenal gland may malfunction which can result in tiredness with the muscles feeling weak; digestive difficulties with a craving for sweet, starchy food; dizziness; and disturbances of sleep. The term 'exam stress' can be broadly defined as a feeling of anxiety over one's performance in the exams, the results and reaction of parents and friends; all weigh upon students to create exam stress. Stress is not necessarily harmful: mild forms of stress can motivate and energise a person. Slightly increased stress levels may make a person more alert and motivated to do his work. However, if stress level of a student is too high then it can cause difficulties, including impairing his ability to prepare for and perform during exams. Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being. This is fact that modern problems respond to fear/danger from everything from life threatening situations. Stress can show itself in many ways. Every human has a habitual response to stress that is either learned or genetically implanted. Some of the common signs are heart racing, stomach cramps, trouble sleeping, losing appetite or overeating of a person.

In this study, Examination Stress in Post graduate Students of Himachal Pradesh University has examined and some fruitful suggestions has given to decrease examination stress.

Objectives of the study

The investigator set forth the following objectives for the study-

- (i) to know the examination stress of post graduate students of Himachal Pradesh University;
- (ii) to compare the examination stress in male and female post graduate students of Himachal Pradesh University;
- (iii) to compare the examination stress in rural and urban post graduate students of Himachal Pradesh University;
- (iv) to compare the examination stress in Arts and Science post graduate students of Himachal Pradesh University;
- (v) to compare the examination stress in hostler and day scholar post graduate students of Himachal Pradesh University;
- (vi) To suggest the ways and means for reducing examination stress of post graduate students.

Hypotheses

The following hypotheses of the study were constructed by the investigator.

(i) There is no significant difference in examination stress of male and female students of Himachal Pradesh University.

- (ii) There is no significant difference in examination stress of rural and urban students of Himachal Pradesh University.
- (iii) There is no significant difference in examination stress of Arts and Science students of Himachal Pradesh University.
- (iv) There is no significant difference of examination stress in hostler and day scholar students of Himachal Pradesh University.

Sample and Delimitation of the Study

The study was delimited in accordance with the following aspects-

- (i) The present study is delimited to 80 male and female students of HP University keeping in view random sampling technique.
- (ii) This study is again delimited to post graduate students of Himachal Pradesh University, Shimla.

Method-

The study was conducted through survey method and the tools were constructed by the investigator. In this tool, rating scale and interview schedule were applied. **Tool-**

Examination stress scale was constructed by the investigator. 20 statements were taken keeping in view the positive and negative nature in this scale. It was valid and Reliability of this test was found 0.80.

Statistics used-

During the study, area was also observed by the investigator. In statistical techniques Mean, S.D. and t-test were applied to know the examination stress of post graduate students of Himachal Pradesh University.

Analysis and discussions

Based upon analysis and interpretation of data, the following major findings emerged as an outcome of the present study-

Most of the students have near about average examination stress. Normal examination stress level was found according to opinion of 48% students. Above average examination stress was found 30% respondents and low stress was found 22% respondents. To compare the examination stress in male and female post graduate students of Himachal Pradesh University has presented according to table No. 01 given ahead.

In viewing the data presented in table No. 01, the Mean of the examination stress in male and female post graduate students of Himachal Pradesh University was found 46.23 and 43.21 respectively. Value of Standard deviation of male and female students also got 6.35 and 5.53 respectively. The obtained t-value for these two groups is 1.49 that is less than table value 1.98. It means that is not significant at 0.05 level with 78 degree of freedom. It can be said that there is no significant difference in the examination stress in male and female post graduate students of Himachal Pradesh University.

To compare the examination stress in arts and science post graduate students of Himachal Pradesh University has presented according to table No. 02 given ahead-

According to table No. 02, the Mean of the examination stress in arts and science post graduate students of Himachal Pradesh University was found 47.04 and 42.37 respectively. Value of Standard deviation of arts and science students also got 5.46 and 6.29 respectively. The t-value for these two groups is obtained 2.48, which is significant at 0.05 level with 78 degree of freedom. It can be said that there is significant difference in the examination stress in arts and science post graduate students of Himachal Pradesh University. Therefore, hypothesis (ii) 'There is no significant difference in the examination stress in arts and science post graduate students has rejected and new hypothesis formulated that there is significant difference in the examination stress in arts and science post graduate students of Himachal Pradesh University.

Table No. 01Mean difference about examination stress in male and femalepost graduate students

		-	-				
Students	Gender	Ν	Mean	SD	t-value	Signi. level	df
Post graduate	Boys	28	46.23	6.35	1.49	Not Sig.	78
	Girls	52	43.21	5.53			

Table No. 02

Mean difference about examination stress in arts and science

1	post	t g	rad	uat	e st	tud	lent	S

Students	Stream	Ν	Mean	SD	t-value	Signi. level	df
Post graduate	Arts	48	47.07	5.46	2.48	Sig05	78
_	Science	32	42.37	6.29		_	

Table No. 03

Mean difference about examination stress in urban and rural post graduate students

Students	Locality	Ν	Mean	SD	t-value	Signi. level	df
Post graduate	Urban	16	45.25	6.62	0.03	Not Sig.	78
	Rural	64	45.15	6.18			

Table No. 04

Mean difference about examination stress in hostler and day scholar students

Students	Residence	Ν	Mean	SD	t-value	Signi. level	df
Post graduate	Hostler	32	44.50	5.68	0.55	Not Sig.	78
	Day Scholar	48	45.62	6.57			

To compare the examination stress in urban and rural post graduate students of HP University has presented according to table No. 03.

In viewing the above table, the Mean of the examination stress in urban and rural post graduate students of Himachal Pradesh University was got 45.25 and 45.15 respectively. Value of SD of urban and rural students found 6.62 and 6.18 respectively. The obtained t-value (0.03) for these two groups is less than standard value (1.98), which is not significant at 0.05 level with 78 df.

It can be said that there is no significant difference in the examination stress in urban and rural post graduate students of Himachal Pradesh University.

(5.) To compare the examination stress in hostler and day scholar post graduate students of HP University has presented according to table No. 04.

Keeping in viewing the data presented in table No. 04, the Mean of the examination stress in hostler and day scholar post graduate students of HP University was found 44.50 and 45.62 respectively. Value of SD of hostler and day scholar students also got 5.68 and 6.57 respectively. The obtained t-value (0.55) of these two groups is less than table value 1.98, which is not significant at 0.05 level with 78 df.

It can be said that there is no significant difference in the examination stress in hostler and day scholar post graduate students of Himachal Pradesh University. Therefore, hypothesis (iv) 'There is no significant difference in the examination stress in hostler and day scholar post graduate students of Himachal Pradesh University has retained.

Major Findings

- 1. There is no significant difference in the examination stress in male and female post graduate students of Himachal Pradesh University
- 2. Arts Post Graduate Students face significantly more stress than science students.
- 3. There is no significant difference in the examination stress in urban and rural post graduate students of Himachal Pradesh University.
- 4. There is no significant difference in the examination stress in hostler and day scholar post graduate students of Himachal Pradesh University.

Suggestions

The following suggestions may prove useful in controlling examination stress-

- 1.Create a work environment in which a learner feels comfortable. To concentrate conducive physical environment is needed, e.g. library, home, table chair setting etc.
- 2.Try to study different subjects per day, changing tasks produce a new energy surge. A student should Fixed up his time schedule for study which does not clash with any of other activities.
- 3. There is also evidence that fit people are better able to handle the long-term effects of stress. So, students should not drink tea, coffee or alcohol late at night, it will stop sleeping.
- 4.A plan with a specific target to finish a particular topic but never fix up target which is impractical or highly overambitious.
- 5. Avoid negative thoughts, Spend time with people who have a positive effect.
- 6.Remember that some stress is normal, but minimise stress by putting in the

study all year, not just at exam time. Do daily and weekly reviews of study and exam material.

- 7.A regular seven hours of sleep is mandatory for the body to function well. A rested mind thinks better than a tired one. Symptoms that can be associated with this stress response might include rapid or irregular heartbeats.
- 8.Students should Practice old exam papers and complete the papers within

the allotted time. This will help students to decide how much time will need to complete examination paper.

- 9.Answer the questions they find easiest first, then as they relax more move onto the other ones (by then their mind has relaxed and they are likely to find the work easier).
- 10.A free counselling service should provide to the students by the university or college/department.

REFERENCES

Best, J.W. (1963), Research in Education, New Delhi. Prentice Hall of India Pvt. Ltd.

- Fred, N. Kerlinger (1983), Foundations of Behavioral Research, New Delhi, Surjeet Publications.
- Garrett, H.E. (1966), Statistics in Psychology and Education, New York, David Mc.Kay Co., Inc.
- Aggarwal, J.C. (2005) Essentials of Examination system: Evaluation, Tests and Measurement, New Delhi: Vikas Publishing House.
- Rao, Priya (2011) Examination: A Process of Learning, University News, Vol.49, No.41, October 10-16, 2011.
- National Knowledge commission (2009) National Knowledge commission Report to the Nation, 2006-2009:1-14. http:// www.knowledgecommission.gov.in/ downloads /report2009/eng/report.pdf.
- Health & Safety Executive. (2005) Work related stress. Retrieved 26 August 2012. http://www.hse.gov.uk/stress/furtheradvice/whatisstress.htm
- http://www.westminster.ac.uk/__data/assets/pdf_file/0008/45728/Managing-Exam-Stress_Mind-Matter-Lflet-BACK-COVER—.pdf
- Myers, M. (2000), Qualitative research and the generalizability question: Standing firm with Proteus. The Qualitative Report, 4(3/4). http://www.nova.edu/ssss/QR/QR4-3/myers.html
- Relaxation Techniques for Stress Relief Relaxation Exercises to Reduce Stress, Anxiety, and Depression (modified 2008) Retrieved 26 August 2012. http:// www.helpguide.org/mental/stress_relief_meditation_yoga_relaxation.htm

* Dr. Jai Dayal Singh : Asstt. Prof., GV (PG) College of Education, (CTE) Sangariya, Rajasthan. Pin.335063 e-mail id: drjdsingh@gmail.com

72

EDUSEARCH						
ISSN: 0976 - 1160						
Vol 4. No. 1. April-2013						

Evaluation of Non-Cognitive Areas

Dr. Venkataswamy B. * & Mrs. Santhi, P.

Abstract

The idea of evaluation is based on the tangible and cognitive areas of education. The student, who becomes a final product after a long period of training, should be eligible to take up his responsibility in the society. A variety of co-curricular activities bring out non-cognitive areas that shape the student's personality. There is a need for assessing the non-cognitive areas. Interests, attitudes, personal and social behavior of the student should be evaluated. Education could be integral along with the training in non-cognitive areas. The materialistic spirit has made the man to pursue his personal gains, and made him neglect his essential character. The basic mandate of education is to prepare the young for future with humanistic, ethical and moral values. The need of the hour is to reconstruct and revamp the curriculum with a proper evaluation of non-cognitive areas.

Introduction

Evaluation is for making it work If it works ... Notice and Nurture. If it doesn't ... Notice and Change.

Education has been a symbol of status as well as measurement. Children college students have their own responsibilities, they must study for a bright future and at the same time realize career and educational desires of the parents. Parents often form pressure groups in children to meet these expectations. These parental aspirations have also rule the working of the colleges, which sustain and often add to the pressure exerted.

Modern concept of education has redefined education. It stems from a new philosophy which call for more adequate techniques of assessing a student's growth and development.

Education being an important enterprise, it is mandatory to evaluate not only the process but also the product. The idea of evaluation stems from the fact that no two individuals are alike and that they are born to play different roles in society. Education for life is long forgotten and education for career has become the order of the day. Men and Women are geared to meet the demands of the economy, forgetting the essence of life. Life is a beautiful proposition placed on a palette offered to every single individual it is for him/her to make it beautiful and a dream to reckon with.

Realizing the need for a value-based

education, *Krothwohl et. al.*1964 gifted the humanity at large with the effective domain aspects. *Krothwohl* dared to differ from *Bloom* and concentrate on finer aspects of human being.

He essentially believed that while mathematics language. and environmental studies are very crucial for human existence, subjects like physical education, work experience, music and art-education are of equal importance. Krothwohl further believed that noncongnitive learning outcomes not only cut across differed subjects of the curriculum but they also call for a variety of cocurricular activities with and outside the college. Hence it is high time for people to understand the need for assessing the non-cognitive areas.

What are non-cognitive areas why they should be developed?

Non-cognitive areas cannot be specified as tangible, terminal behaviors since they comprise elements of personality. They manifest themselves in interest, attitudes, personal and social behaviours and value systems as they essentially suggest the essential aspects of personality development.

The importance of integral education. "An integral education which could, with some variations, be adopted all the nations of the world, must bring back the legitimate authority of the spirit over a matter fully developed and utilized.

Is there a need to evaluate noncognitive areas:

As non-cognitive areas are the backbone of personality development, they are developed on the basis of human values which help to develop desirable interests in children in civic, social and economic problems, to take interest in the communal affairs, to be able to develop healthy attitudes. It also helps the students to possess a sense of healthy patriotism, to assume social responsibilities, to respect others opinion, to

appreciate cultural variations and interdependence of nation and people. Man in his pursuit to master the nature often forgets that he has become the victim of the vicious circle of the material world which incites him only to gain. He neglects the essential nobility of character for which he has been basically created.

Feel, my children feel, Feel, for the poor, The ignorance, the down trodden Feel till the heart Stops by, the brain reels and you Think you will go mad, then you keep The soul at the feet of the Lord and then will come power, Help and indomitable energy. "Love never foul, my son, to day Or tomorrow or ages flee, truth will conquer Love shall win the victory.

— Swami Vivekananda

Improvement in the quality of human life is very often projected on the objective of practically all developmental initiatives in our country.

The basic mandate of education is to prepare the young persons for future, for which needs more to be done in the affective domain especially in terms of internalizing humanistic, ethical and moral values.

Therefore, it is to be understood that educators have to reconstruct and revamp the curriculum where evaluation is not only for the cognitive excellence but has to extend to non-cognitive areas, which takes care at the value system as good education is importable from value oriented education. Real education should combine science and ethics.

"We want that education by which character is formed, strength of mind is increased, the intellect is expanded and by which one can stand on one's own feet". —Swami Vivekananda

As seen before, evaluation is considered as an integral part of the education process which includes objectives, instruction and testing. As the concept of modern education envisages all round development of the students, the concept of educational evaluation in modern times embraces the measurement of scholastic as well as nonscholastic areas of development of children.

It also involves the measurement of behavioural changes among students in terms of pre-determined educational objectives on one hand and placing of value upon what has been measured on the other.

It is not possible to evaluate all the areas in non-cognitive areas. A student's report card can find a place for two indicators in each area.

But it is necessary to create awareness among the parents on non-cognitive areas. The colleges should give importance to the grades in non-cognitive areas for admission in higher classes. The students should get scholarships on par with the achievements in scholastic areas. The grading should be given in five stages "A, B, C, D, E".

For Eg: Regularity (Non-cognitive area) More than 200 days

attendance	— A – Grade.
175 to 199 days.	— B – Grade.
155 to 174 days.	— C – Grade.
135 to 154 days.	— D – Grade.
Less than 134 days.	— E – Grade.

Attitudes are the most difficult to acquire and often a new attitude must replace an old attitude before skills can be taught or learned. NCC & NSS at collegiate level provide comprehensive training for boys



Figure 1.

& girls and over all development may be implemented in all colleges in a true spirit.

Assessment of Non-Scholastic Aspects: The following tools and techniques are mostly usable for assessment of nonscholostic aspects of development.

- (i) **Observation** : is one such technique used most frequently. It may require the use of the observation tools like:-
- Observation schedule for practical work, participation in games etc.,
- Rating scales for rating social qualities, interests, attitudes etc.,
- Check lists for health habits, work habits, study habits etc.,
- (ii) **Inquiry Techniques** : Such as interview and sociometry are usable

and involve the use of tools like the following:-

- Questionnaire to seek face to face opinion and views.
- Interviews schedule to conduct interviews.
- Sociograms to identity social relationship among peers.
- (iii) **Analysis :** is another usable for analyzing content, syllabus, documents, reports, results etc.,

Conclusion:

One obvious need is to arrest the almost complete erosion of social and moral values. Truth and non-violence are ever lasting spiritual values that we have been inheriting from our past. For a brighter India of tomorrow, we need new culture which combines the best of both science and spirituality.

REFERENCES

- J.C.Agaarwal Essentials of Examination System Evaluation Tests and Measurements.
- Popham.W. J. (1975) Educational Evaluations.
- Rambhai W.Patel- Educational Evaluation.
- Stanley Julian C. and Kenneth D.Hopkins(1978) Education and Psychological Measurements and Evaluation

 * Dr. Venkataswamy, Busi : Asstt. Prof., Dept. of Telugu, PAS College, Peddanandipadu, Guntur, A.P. Pin. 522 002 e-mail id: busi.venkataswamy3@gmail.com
 * Smt. Santhi, Pitta. : Lecturer., St. Joseph's College of Education for Women, Sambasivapet Guntur, A.P. Pin. 522 002

76

Essential Guidelines of Writing Paper for Publication......by Ramesh, M. & Ravi, V.



Essential Guidelines of Writing Paper for Publication: An Overview

Ramesh, M * & Ravi, V. **

Abstract

Journal Publications play vital role in generating knowledge in society. There are number of publications are emerged for dissemination of knowledge publishing in different category of papers. For publishing a paper the author should follow a prescribed format which is accepted by standard publication. The framework of the paper should reflect the scientific style of writing for publishing in national or international levels. It is noticed that there are different styles of writing papers from one journal to another. The present paper addresses some essential guidelines of writing a paper for publication.

Introduction

Written communication is more difficult but it conveys factual knowledge when the writer organised systematically and logically in such a way that message can reach to the readers to comprehend. As a writer one needs to communicate not only to his peers but also to laypersons through media. Research objectives, methodology and findings can be communicated and disseminated through scholarly publications such as journals, books, monograph, periodicals, pamphlet, encyclopaedias, patents, standards etc. In order to write and publish a paper in any publication, writer should follow scientific style of writing, standard guidelines and formats. Writing a paper may seem like an overwhelming process for the inexperienced researchers to organisation of collected data and synthesised in a meaningful way. In this context, writer must learn to become more proficient in the field of communicating knowledge to others. While developing a scientific paper, writer should keep certain aspects in mind such as reading the existing journal, reviewing the related literature, formatting the reference citation, understanding the anatomy of paper, writing style and components etc.

Historical Perspectives of Publication The first journal was published about 350 years ago. In the early 20th Century, Scientific papers were written in singular form & loosely structured. During 1950 -1960's numbers of publications were increased that leads to the need of uniformity & standardization. The most significant and successful attempt towards standardization and uniformity

77

was made by Sir Bradford Hill, a British Statistician who introduced the IMRAD Format in 1965. It is a standard structured format for writing the text of original research, which enhances comprehension, and clarity of manuscript with no repetition. IMRAD format is accepted and recommended by ICMJE & most international scientific journals. The IMRAD format has four sections: Introduction..... Why did you start? Methods... What did you do? Results What did you find? And and Discussion What does it all mean? The IMRAD format is now being used almost in universal journals. Editors support IMRAD because it was simplest the most logical way to communicate research results. Although the IMRAD format is widely used, it is not only the format for scientific papers, other possibilities includes IRDAM, IMRADC, IMRMRMRD, ILMRAD etc.

What is Scientific Paper?

A scientific paper is a written in systematic way and organize data in logically. Scientific paper must be written in certain way, as defined by tradition and editorial practice, scientific ethics and the interplay of printing & publishing procedure (Day & Gastle, 2011). A scientific paper has been defined as "a written and published report describing original research results." Successful scientific paper indicates the results of a clear mind attacking a clearly stated problem and revealed evidently conclusions. A scientific paper is organised to meet the need of valid publications and highly distinctive, clearly and evident component parts. Publication is no more worth unless the published paper is understood by readers. Mostly scientific paper those published in our primary research journal is accepted for publication precisely because they do contribute new knowledge.

What is Scientific Writing?

Scientific writing is a dissemination of new knowledge derived from empirical research or ideas evolved from authors mind. The term scientific writing commonly denotes that reporting of original research in journals through scientific paper in standard format (Day and Gastle, 2011). It also includes organize the ideas logically and concisely within the format. The scientific writing must have clarity, brevity, and organization which are essentially followed by author and then only author can convey information quickly, understandably and concisely. In scientific writing, there is little need for ornamentation, flowerv literary embellishments, metaphors, similes, idiomatic expressions are very likely to cause confusion and showed seldom used in research paper.

Guidelines of Writing a Paper

To write a scientific paper, generally writer follows the format and style although there are many exceptions like where the material is printed and who will be reader. However the formats and styles are differing from time to time and place to place and one publication to another but a scientific paper never will be a dull and dry. In brief, it's the ability of an author to convey maximum information through minimum words to reader. Before beginning to write a paper, an author is needed an adequate preparation to make work logical, readable and shorten the writing time. Some of the useful suggestions listed below to keep in mind 1. Explain the problem

- Think what exactly do you want to present through this paper?
- What type of group readers do you have?
- What background information can you assume from readers?
- What is the most logical sequence in which I should present the information to the reader?

Essential Guidelines of Writing Paper for Publication......by Ramesh, M. & Ravi, V.

- 2. Make a detailed outline
- 3. Plan tables and figure

4.Sit and think

General Rules for Writing Manuscript The following rules can be applied with profit to all technical writing and to all parts of scientific paper.

- 1. Be clear: Simple declarative sentence for communicating scientific information, Avoid long and twisty sentences and unclear construction.
- 2. Be concise: Avoid vague, wrong usage, idle words and make every word count.
- 3. Be complete: Do not assume that the reader has all background information

on the area which the author is writing. Put yourself in the place of reader, rigorous self critical when the author read first time. An author has to keep in mind some things in writing paper which make his writing vogue and confuse the readers.

Characteristics of Poor Manuscript

Bartol (1983, cited in Eichorn & Vanden Bos, 1985) identified some of the poor characteristics of manuscript which are listed below:

- inadequate review of the literature
- inappropriate citations
- unclear introduction
- ambiguous research questions
- inadequately described sample
- insufficient methodology
- incompletely described measures
- unclear statistical analysis
- inappropriate statistical techniques
- poor conceptualization of discussion
- discussion that goes beyond the data
- poor writing style and
- Excessive length

Components of the Writing Paper

The characteristics' and formats of components of a paper for publication is given below;

1. The Title

The title is a key element that informs the reader about the contents of the manuscript. A good title is always more informative and it referred as 'text in miniature' which encourage the readership. The author should formulate title creatively in such a way that it captures the attention of reader and stimulate their curiosity to read complete manuscript. The following features should be considered while framing title

- must be appropriate, specific, informative, be brief (usually <10 words)
- Include the nature of the study, Species involved and geographic location.
- Do not use "cute," poetic, or idiomatic titles.
- Avoid attempts at clever or witty titles
- Do not use abbreviations and unsuitable words.
- Avoid the lengthy title as the reader may have difficulties in perceiving the content, it should concisely stated.
- It should reflect the variables or theoretical issues.

1. (a)Title Format

- Centred horizontally on upper half the first page.
- Begin the first word with capital letter, thereafter capitalise only proper names and acronym, not bold.

2. Abstract

The abstract is a summary of paper and generally reader will read after the title. It allows readers to get an idea of what the author informed so readers can decide if they want to read the entire paper or not. Abstract is one of the most important sections of manuscript, luring the bookworm to read it and revolve background of the study. It should emphasize new and important aspects of the study or observations. Some of the important points about abstract listed below

- The abstract should contain a complete but concise summary of paper.
- The abstract can one or two paragraph condensation and should not contain more than 250 words.

- Abstract should not repeat the title because this is redundant and takes up precious space.
- Reflect the content of the article accurately.
- Define all non standard symbols, abbreviations and acronyms
- Abstract should contain these four elements:
- (a).the purpose of the study (the central question).
- (b).brief statement of what was done (Methods).
- (c).brief statement of what was found.
- (d).a brief statement of what was concluded (Discussion, in part).
- Centred in the top line of the page and is not bolded.
- The first line of the first paragraph of the abstract is not indented.

(3). Keywords

• Use only 3 to 10 key words or short phrases that capture the main topics of the article.

(4). Introduction

Introduction motivates the readers to read a paper and provide the purpose of the manuscript which is organized clearly, understandably and flow nicely. The following things can help the writer to make introduction effectively.

- State the purpose of the paper clearly and understandably
- The introduction should concise, not lengthy if needed broken into paragraphs
- a description of the nature of the problem and current state of knowledge or understanding at the beginning of the investigation (background)
- State the outline of purpose of research (rationale), objective, hypothesis, methodology, findings clearly.
- Avoid mistakes and use of jargon
- •orient the reader to proceed further reading
- •opening paragraph should state the goal or purpose of the research

•The statement must be supported by citations rather than broad generalities without citations.

(5). Materials and methods

The methodology describes what the researcher carried out and how it was conducted. This is very important because other researcher may use this information to try to replicate the study.

- The description should be given completely to enable someone else to repeat the work.
- Experimental procedures and results are narrated in the past tense (what author did and what was found etc.) whereas conclusions from results are given in the present tense.
- Research participants, design of study, statistical tools, techniques and analysis should be described in this section along with the actual experimental work.
- Use active rather than passive voice wherever possible. Always use the singular "I" rather than the plural "we" when you are the only author of the paper.

• avoid contractions, e.g. did not vs. didn't (6). Tables and Figures

- Do not repeat information in a table that depicted in a graph or histogram; include a table only if it presents new information.
- Provide each table with a number (Table 1, Table 2, etc.) and a title. The numbered title is placed above the table.
- Provide each figure with a number (Fig. 1, Fig. 2, etc.) and a caption.

(7). Results

Results are the Core of the study. Therefore it should be;

- The results should be presented in a clear, accurate and concise format.
- summarizes information contained in tables and figures presented elsewhere in the paper.
- recognize the significant findings.

80

Essential Guidelines of Writing Paper for Publication......by Ramesh, M. & Ravi, V.

- Good writing of results reports summary of data, not just summary of statistics
- There should be no redundancy so stick to what is relevant.
- Include basic descriptive data.
- Present your results in logical sequence in the text, tables, and illustrations, giving the main or most important findings first.
- Do not repeat in the text, all the data given in the tables or illustrations; emphasize or summarize only important observations.
- It is worthwhile considering presenting data as a graph rather than a table, as graphical representation is often easier to follow.
- Photographs, line drawings and cephalometric tracings should be of good quality.

(8). Discussions

Discussion is where researcher interprets your results and it aims to summarize your work and put it into perspective. What were the strengths and weaknesses of your own study? Then how do your findings fit in with work published by others? Finally, where is this line of research going next?

- Do not repeat in detail data or other material given in the Introduction or the results section.
- Avoid redundancy between the Results and the Discussion section.
- It should be more appropriate short and simple.

(9). Conclusions

- The concluding paragraphs of 2-3 lines mentioning the principal findings & their relevance makes up the conclusion of the study.
- Unjustified conclusions not supported by the data should never be made.

(10). Reference

- It should appear at the end of paper
- It should provides necessary information to reader to locate and retrieve the source

Some Suggestions

- Writer should follow certain ethical considerations such as originality, not be plagiarized and publish same paper more than a journal.
- •There should be a uniform Standard format and steps for all journal publications
- •Detailed instructions regarding format, steps to follow, submission procedure, authorship should be given to writer by publishers.
- •To strengthen quality of paper, editorial board can reviewing and re-reviewing of paper based on given suggestions before publish.
- •Writer has to follow standard style of writing reference and citations.
- •Author is suggested to interpret his/her work using research terminology.
- •Be positive when suggestions are given by editorial board to incorporate changes and re-submit
- Published paper should not be reproduced in any other journals.

Conclusion

Writing a manuscript for publication is challenging that needs lot of time, energy and intellectual rigor. It is one of ways to disseminating knowledge among literates of society. By writing manuscript, one can sharing ones findings with scientific community to bring personal rewards to him. It is necessary to encourage new scholars and researchers to take the progressive steps of developing their manuscripts for submission to journals.

REFERENCES

American Psychological Association, (2010). Preparing Manuscripts for Publication in Psychology Journals: A Guide for New Authors Retrieved from http:// www.tlu.ee/CFME09/APA-guide.pdf

EDUSEARCH - ISSN: 0976 - 1160 Vol. 4 No. 1 Apr. 2013

- Bartol, K. M. (1983). Manuscript faults and review board recommendations: Lethal and onlethal errors. In American Psychological Association, Committee on Women in Psychology and Women's Programs Office, Understanding the manuscript review process: Increasing the participation of women (pp. 29–45). Washington, DC: American Psychological Association.
- Day & Gastel, (2011). *How to Write and Publish a Scientific Paper (7thed)*. California: Greenwood Publication.
- Guidelines for Writing Scientific Papers () retrieved from www.aou.org/students.doc/ baldassare.pdf.
- Grewal, A. *How to Write a Paper for Publication*, Department of Anaesthesiology and Resuscitation, Ludhiana. Retrieved from www.pacifichealthvoices.org/files/ how to write.pdf.
- Hunt, B. (2010). APA Publication Manual (6thed.), Paper Preparation Guide. The Pennsylvania State University.www.ed.psu.edu/educ/epcse/rhs.
- Jhonson, B & Christenen, L (2008). *Educational Research (3rd ed)*. New Delhi: SAGE Publications.
- The Robert Gillespie Academic Skills Centre, (2008). APA Formatting and Style Guide. Retrieved from www.councilscienceeditor.org/pages/index.cfm.

* Ramesh, M : Research Scholar, CASE, Dept of Education, The M S University of Baroda, Vadodhara, (Gujarat). E-mail : rameshm_11@yahoo.com ** Ravi, V : Research Scholar, CASE, Dept of Education, The M S University of Baroda, Vadodhara, (Gujarat). An Investigation into Leadership Styles ofby Dr. Neera Goutam & Deep Kumar



An Investigation into Leadership Styles of Secondary School Principals' and their School Climate

Dr. Neera Goutam * & Deep Kumar **

Abstract

The quality of Education is directly proportional to management and leadership practices. The present study is made on the leadership styles among High School principals and the corresponding school climates. The research is empirical type using survey method. The sample consisted of 10 High Schools in Patna City drawn purposively. Responses were collected from 150 High School students and 10 Principals from the selected schools. For measuring leadership style among High School Principals, The Blake and Mouton Managerial Grid Leadership Questionnaires were administered upon those principals. On the other hand, School Environment Inventories were administered upon the High School students. The data have been analyzed using t-test and correlation coefficient. The significance of mean difference and correlation coefficient were tested. It has been found that the principals of Missionary and Non Missionary Schools as well as Government and Non-Government Schools is superior to the school climate of Non Missionary Schools and the school climate of Non-Government Schools has been found better than those of Government Schools.

Introduction

"The destiny of India is now being shaped in the class rooms" - this is the assessment of the situation by first ever commission, Kothari Commission (1964-66) on Indian Education. This remark highlights the importance of schools for imparting knowledge and incorporating skills among students so that they can become functional members of the society and global citizens. Schools are the first nurseries for education of children in our country. Success of school system depends upon its organizational factors as well as optimum utilization of the potential resources. This responsibility rests with a prominent figure i.e. School Principal. The Principal is not only the representative of his school, he is the major component of the school who promotes the success of all the students bv facilitating the development, articulation, implementation and steward of a vision of learning that is shared and supported by the school community. He is the leader whose vision and action facilitate the successful running of the school system. His leadership involves building cohesive and goal oriented teams that are capable of working together to accomplish educational objectives and fulfill the mission.

83

Leadership has a variety of definitions and interpretations. (a). it is an attribute of a particular position. (b). it is trait of personality or characteristics of a particular person. (c). it is a kind of behavior; it is a way or style of influencing others. Leaders vary in their patterns of behavior or activities for influencing people. In other words leadership styles vary from person to person. Hersey and Blanchard (1988) have identified four styles of leadership: Autocratic, Democratic, Encouraging and Social (Participating) and Laissez-faire. Rensis likert has also studied the patterns and styles of leaders. He has developed four systems of leadership style. They are: System I- Exploitative-Authoritative, System II- Benevolent-Authoritative, System III- Consultative and System IV-Participative. A popular approach for defining leadership style is Managerial Grid constructed by Blake and Mouton. The grid has two dimensions - Concern for people and Concern for production. It suggests following four styles of leaders: Impoverished (Low concern for both people and production), Country-Club (low concern for production but high concern for people), Task-Management (High concern for task efficiency and low concern for people) and Team Management (Strong regard for both people and production).

The Organizational climate as a concept originated in the late 1950s as social scientists studied variations in work environments. Andrew Halpin and Don Croft were the pioneering researchers of school climate. They published the results of their research on school climate in 1963. Thus, the concept came to limelight and their work forms the basis upon which other scholars and researchers on school climate carried their researches and studies (*Freiberg*, 1999). School climate reflects the physical and psychological aspects of the school that are more susceptible to change and that provide the preconditions necessary for teaching and learning to take place. *Moos* and *Insel's* (1974) concept of school climate focuses on social ecology, which is defined as the relationship between human interaction and the physical and social aspects of a school. A school's climate is its atmosphere for learning. Positive school climate makes a school a place where both staff and students want to spend a substantial portion of their time; it is a good place to be.

Leadership style is one of important determinant of school climate. It is the leader's way of behaving that pools together all the resources of school organization in an effective and efficient way. His efforts make the school climate conducive for learners and pleasant work place for the teachers as well as nonteaching staffs. Hence it is necessary to study the leadership styles of the principals in the context of climate of schools wherein they render their services. Attempts have been made in understanding leadership processes influencing the organizational climate. (Bhattacharya, 1972; Das, 1977; Hassa, 1987). A positive climate can enhance staff performance, promote high morale and improve student's achievement (Freiberg, 1998; Heck. 2000).

In the light of above mentioned piecemeal works on leadership styles and school climate an attempt has been made to study find out the relation between the two variables in a new perspectives i.e. in High Schools.

Objectives

This research has been undertaken to accomplish the objectives given below:

- To compare the leadership styles adopted by principals in Missionary and Non- Missionary Schools.
- To compare the leadership styles adopted by principals in Government Schools and Non-Government Schools.

An Investigation into Leadership Styles ofby Dr. Neera Goutam & Deep Kumar

- To compare the schools climate prevalent in Missionary Schools and Non- Missionary Schools.
- To compare the schools climate prevalent in Government Schools and Non- Government Schools.
- To ascertain the relationship between leadership styles and school climate.

Hypotheses

In the light of above mentioned objectives, the following null hypotheses have been formulated for empirical verification:

- 1. There will be no significant difference between leadership styles of Missionary School principals and Non-Missionary School principles.
- 2. There will be no significant difference between leadership styles of Government Schoolprincipals and Non-Government School principals.
- 3. There will be no significant difference between school climates of Missionary Schools and Non-Missionary Schools.
- 4. There will be no significant difference between school climates of Government Schools and Non-Gov. Schools.
- 5. There will be no significant relationship between leadership styles of principals in schools and school climate prevalent therein.

Sample and Sampling

Sample of the study consists of 10 High schools principals and 150 students class IX (15 from each school) were drawn from Patna district. Incidental cum purposive sampling method was used for drawing the sample.

Tools Used

Following tools were usedin the study :

- School Environment Inventory developed by Dr K.S Mishra.
- The Blake and Mouton Managerial Grid Leadership Questionnaire

Procedure

The subjects were administered School Environment Inventories. The test contained 70 items and is designed to measure their perception towards their school climate. The Blake and Mouton Managerial Grid Leadership Questionnaires was administered on the principals of the respective schools.

Analysis of Data

Data was analyzed using' test and product moment correlation

Results and Discussions Table 1

't' value between leadership styles of principals in Missionary and Non -

Missionary Schools.

Leader- ship Styles	N	Mean	SD	SE	đf	t	Sig.
Mission	5	57.5	3.7	2.1			
Schools					8	.328	NS
Non-Mis.	5	56.3	6.2	2.8			
Schools							

It is obvious from table 1 that the leadership styles of principals of Missionary Schools do not differ significantly from the leadership styles of principals of Non-Missionary Schools. Therefore hypothesis 1 is retained. This result can be explained on the ground that in both types of educational set ups the principles have to face similar type of challenges in managing the affairs of the school variables and facilitating teachinglearning process.

Table 2

't' value between leadership styles of principals in Govt. and Non Govt. Sch.

Leader-	Ν	Mean	SD	SE	df	t	Sig.
ship							
Styles							
Govt.	5	54.5	2.1	2.1			
Schools					8	.44	NS
Non-Govt.	5	55.7	4.5	1.7			
Schools							

The results displayed in Table 2 shows that the principals of the Government Schools do not differ significantly from the principals of Non Government Schools in terms of the leadership styles adopted by them. Therefore hypothesis 2 is also retained. This finding could be interpreted on the rationale that leadership is an attribute of a person. Whatsoever is the organizational climate, a leader's way of exercising his power is always task oriented.

Table 3

't' value between school climate of

Missionary and Non-Missionary Schools								
School	N	Mean	SD	SE	df	t	Sig.	
Climate								
Misson.	75	184.4	19.3	2.5				
Schools					148	3.1	p<	
Non-Mis.	75	174.1	20.8	2.2			.01	
Schools								

The results in the table 3 show that there exists significant difference in the school climates of Missionary and Non-Missionary Schools. Hence, Hypothesis 3 is rejected. The school climate of Missionary Schools is superior to schools climate of Non-Missionary Schools. This finding might be interpreted on the ground that work culture of Missionary School is based upon discipline and hard work. Moreover, there is no profit making motive behind the missionary schools and people working here have one motto "Education is a service to the humanity".

Та	bl	e	4

t value between school climate of

Government and Non-Govt. Schools.

School	N	Mean	SD	SE	df	t	Sig.
Climate							
Govt.	75	169.8	19.7	3.6			
Schools					148	2.6	p<
Non Govt	75	180.3	20.6	1.9			.01
Schools							

The results in table 4 show that the Government Schools and Non -Government Schools differ significantly in terms of their School Climate. Therefore hypothesis 4 is rejected. The school climate of Non-Government Schools is encouraging in comparison to the Government Schools. This result could be interpreted on the ground that in NonGovernment schools, the whole administration rests with the governing body (Private). Moreover, the nature of jobs of the teaching staffs is not permanent. They make more efforts for proving their competencies and being in the good books of Governing Body of their respective schools. On the other hand, in the Government Schools, the teachers are less accountable for the duties assigned to them. Moreover, the permanent nature of the job of teachers in the Government Schools makes them apathetic towards hard work and discipline.

Table 5

'r' showing correlation between Leadership Style and School Climate

Variables	N	r	df	Sig.	
Leadership Style	10				
		-0.109	9	NS	
School Climate	10				

The result in table 5 shows that there is no significant relationship between leadership style and school climate. Therefore hypothesis 5 is accepted. The finding can be justified in the ground that there are a good number of variables that make the school climate. These are: Interpersonal relationships among the teachers, feelings of mutual respect for each other between teachers and students, supportive work culture of the institution, enriched learning environment, job satisfaction among the teachers, opportunities for research and innovations. Since leadership refers to qualities inherent in a person who makes others to follow him, but it may not be sufficient enough to build school climate. The interaction between other variables might have overcome the effect of leadership and hence the present study reveals no relationship between leadership style and school climate.

Results

1. There is no significant difference between leadership styles of Missionary An Investigation into Leadership Styles ofby Dr. Neera Goutam & Deep Kumar

School principles and Non-Missionary School principles.

- 2. There is no significant difference between leadership styles of Government Schoolprinciples and Non-Government School principals.
- 3. Missionary Schools have shown singnificantly more conductive climate than Non-Missionary Schools.
- 4.Non Govt. Schools have shown singnificantly more conductive climate than Govt. Schools.
- 5. There is no significant Correlationship between leadership styles of principals in schools and school climate prevalent therein.

Educational Implications

The Findings of this study can be utilized for the betterment of educational theory and practices.

- 1. The knowledge of the student's perception of the school climate can be utilized by the present day principals for bringing improvement in the academic and socio-emotional climate of their school.
- 2. The findings of this investigation can be greater use for the principals of colleges to evaluate their leadership styles.

REFERENCES

- Bhattacharya, S.K. (1972). Perception of Organizational Characteristics in relation to Need Gratification among Indian Managers, Indian Management, pp- 29-34.
- Blake, R & Mouton, J. (1985). The Managerial Grid Austin, TX: Scientific Methods.
- Das, G.S and Singh, A.P. (1977). Management Styles of Indian Managers- A profile, ASCI Journal of Management.
- Freiberg, H. J. (1998). Measuring School Climate: Let Mme count the ways. Educational Leadership, 56(1)
- Freiberg, H. J. (1999). Consistency Management and Cooperative Discipline: From Tourists to Citizens in Classroom, in Beyond Behaviorism: Changing the Classroom Management Paradigm, edited by H. J. Freiberg. Massachusetts: Ally and Bacon: 75-118.
- Hallinger, P. & Murphy, J. (1987). Assessing and Developing Principal Instructional Leadership. Educational Leadership, 45(1).
- Heck, R. (2000. Examining the impact of school quality on school outcomes and improvement: A value added approach. Educational Administration Quarterly, 36(4).
- Hersey, P. & Blanchard, K. H. (1988). Management of Organizational Behavior: Utilizing Human Resources. 5th edition. New Jersey: Prentice Hall.
- Kothari Commission Report (1964-66)
- Lane, B. (1992). Cultural leaders in effective schools: The Builders and Brokers of Excellence. NASSP Bulletin, 76.
- Moos, R.H. & Insel, P.M. (Eds.). (1974). Systems for assessment and classification of Human environment: an overview. Palo Alto, California: National Press Books.

 * Dr. Neera Goutam : Asstt. Prof., St. Xavier College of Education, Digha Ghat, Patna. Bihar. e-mail id: neeragautam@rediffmail.com
 ** Mr. Deep Kumar: Asstt. Prof., St. Xavier College of Education, Digha Ghat, Patna. Bihar.

EDUSEARCH					
ISSN: 0976 - 1160					
Vol 4. No. 1. April-2013					

Status of SSA Interventions on Education of Children with Special Needs in Jatni Block Odisha

Dr. Prabhat Manjari Sarangi *

Abstract

By the study an attempt has been made to report about the status of SSA interventions on education of children with special needs in Jatni Block of Odisha. A sample of 27 students were taken by using random sampling. For collecting data interview schedule and office records of Children with Special Needs (CWSN) were used. The analysis of data revealed that interventions provided by SSA have positive influence upon enrolment and retention of children but it could not establish conspicuous influence on learning achievement of the learners.

Introduction

Every society has the responsibility to protect the wellbeing of its children. All children, irrespective of their background and their needs, should get adequate opportunity in schooling system. They need scope to display their talents and share their emotions with their peers. But children having any kind of disability always made to feel inferior in the school as well as in society. The talent they possess could not be nurtured adequately due to lack of awareness among parents, teachers and community members. They feel insecure in attending school. Therefore, it has been pointed out in National Curriculum Framework (NCF) 2005 that disability is to be accepted as a social responsibility. No selection procedures to be adopted for denying admission to learners with disability in

the schooling system. In India for the benefit of the persons with disabilities the equal opportunities, protection of rights and full participation Act, 1995 (Govt. of India,1995) has been enforced.

The PWD Act-1995 includes disabilities referring to blindness, low vision, leprosy (cured), hearing impairment, locomotor disabilities, mental retardation and mental illness. But the new draft includes chronic neurological conditions such as epilepsy, learning disability, speech & language disability, blood disorders (haemophilia, thalassaemia) and multiple scierosis, besides conditions covered by the National Trust Act such as Autism, Celebral Palsy and Mental Disabilities. (Times of India, Oct. 21,2012). SSA is a holistic and convergent programme to provide quality basic education within a clear time framework within the age group of 6-14 years of children. It aimed to bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010. It focuses on increasing access, enrolment and retention of all children as well as improving the quality of education. The objective of SSA can be realized only when all children including SC/ST, girls, children having disability, deprived children are included under the boundary of elementary education. Hence, a number of provisions have been supported by SSA to regularize the children with special needs.

Rationale of the study

Every child possesses some unique talents. The participation of all children needs to be ensured in all spheres of their life within the school system. Schools need to become centres that prepare children for life. There will be a focus on the inclusion and participation of children from every category in educational process. They may be from SC/ST, minority group, slum children and children with special category. SSA provides a number of interventions like opening of new primary or upper primary schools and alternate schooling facilities, construction of school building, posting additional teachers, free uniforms for children, improving curriculum and text books, learning enhancement programme, teacher training, teaching learning equipment for new primary and upper primary schools, teacher grant, innovation fund for computer-aided learning, library, provision for children with special needs, enrolment of out of school children, training of School Management Committee (SMC)/Village Education Committee (VEC) members, additional class rooms, separate toilets for boys and girls, safe drinking water, furniture, repair of school building, maintenance grant for school (Yadav, Kumar, Mallick, 2009).

Children with special needs should be provided with aids and appliances through convergence with the Ministry of Social Justice & Empowerment, State Welfare Department, National Institutions or NGOs. There are different categories of CWSN who are being enrolled in schools in Jatni Block. They are Visual Impaired (VI), Hearing Impaired (HI), Speech Impaired (SI), Orthopedic Handicapped (OH), Mental Retardation (MR), Cerebral Palsy (CP), Multiple Disable (MD), Total Blind (TB), and Learning Disable (LD). Though a number of steps have been taken to enrol and retain disabled children through quality education in SSA schools, yet hundred percent disable children are not found in the school system. Who so ever are there in the system could not exhibit satisfactory learning achievement as compared to general category students. The SSA interventions play an important role in developing parental awareness on education of their wards, better functioning of the school, improved learning achievement of learners (Aswasthi & Patel, 2008). For better learning achievement class tests and home assignments special emphasis on supporting Teaching Learning Materials (TLMs) and teaching methods play a significant role (Soni, 2009). Friendly attitude of teachers, scope for joyful learning using practical learning experiences can reduce dropout in the school (Sudhir, 2008). Aids and appliances for education of different categories for disable children were not found in schools. No special teachers were appointed (Soni, 2004). But training on Integrated Education of the Disabled (IED) programmes conducted to enhance the ability of teachers and handle the situation. High degree of attendance and retention had found after organizing IED training programme. (Action Aid, 2002; Mishra, 2007). Headmasters and class

teachers faced various problems for different categories of disable children in teaching learning process. About 73 percent of children had been supplied with aids and appliances. Though majority support was given by Headmasters for retaining them but very little steps, were taken for medical checkup, (*Mishra*, 2007; *Rath*, 2007; *Rana*, 2007)

Inspite of these research findings in different localities it is found that in many places in general and in Jatni block in particular less emphasis is being given on education of CWSN in SSA schools. Hence, this study was undertaken to study the influence of SSA interventions in education of children with special needs in Jatni Block of Odisha.

Objectives of the study

The objectives formulated for the study are;

- To find out the status of enrolment, retention and learning achievement of the children with special needs in Jatni block.
- To study about the influence of the incentives provided to the children with special need through SSA.

Methodology

Sample

In this study the procedure of random sampling was adopted to select 20 Elementary Schools. The sample consists of 20 Headmasters, 27 children from the schools with special needs (three from each category – visual, auditory and physical), 5 nos. of Cluster Resource Coordinators (CRCCs), the Block Resource Centre Coordinator (BRCC), the Block Resource Teacher (BRT) and 5 nos. of Integrated Education Volunteers (IEVs). **Tools used**

For collecting data two different sets of tools (i) interview schedule for each category of sample and (ii) office records of children with special needs available at BRC office and sample schools were used.

Analysis and Findings

Different incentives were supposed to be provided for Children with Special Needs (CWSN) in Elementary Schools all over the country through SSA programmes. The Elementary Schools in Jatni block were under the purview of SSA. In this study it was attempted to assess the magnitudes of incentives available to CWSN in Jatni block of Odisha and the influence of the same on them. As revealed form official records of the category of children with special needs, percentage of students availed the facility of appliances and the appliances received as incentives from the schools have been presented in table 1.

Table 1 Availability of Interventions to Children with Special Needs through SSA Programme (N=27)

Sr.	Category of DA	No. (%)	Incentives got
1	Visually		
	Impaired (VI)	0	No incentives
2	Hearing	4	Hearing aid &
	Impaired (HI)	(10.8)	speech therapy,
			V-cord for
			stud. having
			severe problem
3	Speech	27	Speech therapy
	Impaired (SI)	(100)	
4	Orthopedically	27	Wheel chair,
	Handicapped	(100)	Physiotherapy
	(OH)		Ankle Foot
			Orthosis (AFO),
			Knee Foot
			Orthosis (KFO)
5	Cerebral	27	Physiotherapy,
	Palsy(CP)	(100)	do
6	Mentally	3	Learning kit
	Retarded(MR)	(8.1)	
7	Multiple	2	HB training
	Disabled(MD)	(5.4)	by (IEV)
8	Total Blind (TB)	0	Escort, Blind
			Stick
9	Learning	3	Extra class
	Disabled (LD)	(8.1)	

⁽Figures in the parentheses indicate percentage)

The perusal of the above table shows that a number of incentives i.e. hearing aid & speech therapy, V-cord for having severe problem with hearing impairment, speech therapy to children having speech impairment, wheel chair, physiotherapy, Ankle Foot Orthosis (AFO), Knee Foot Orthosis (KFO) to Orthopedic Impaired, learning kit to Mental Retarded children, physiotherapy, wheel chair, Ankle Foot Orthosis (AFO), Knee Foot Orthosis (KFO) to Cerebral Palsy children, home based training by Integrated Education Volunteers (IEV) to Multiple Disable children, escort, blind stick to Total Blind children, extra class for Learning Disabled children. But no incentives were given to children having Visual Impairment.

All these assistance were provided with a view to enhance the enrolment and retention of children of such category in the schools. Data in this regard were collected from the respective school records. The mean enrolment and percentage of retention and drop out during last 5 years have been shown in table 2 and figure 1.

A close look at the table 2 and figure 1 shows that the percentage of retention and dropout rate of CWSN children during last 5 years weresame. No drop out was detected. The mean enrolments of children till 2010 were increasing but during 2011 considerable decline was estimated.

	Table 2						
Mean enrolment and percentage of							
rete	ntion and o	drop out du	ıring last				
5 years							
Year	Mean	% of	% of				

ICai	mean	/0 01	/0 01
	Enrolment	Retention	Dropout
2007	30.8	100	0
2008	39.5	100	0
2009	49.4	100	0
2010	51.8	100	0
2011	41.6	100	0

Figure 1						
Mean	enrolment	during	last	5	vears	



An initiative was taken to analyse the learning achievement of CWSN. The mean percentage of achievement of disable children during last 5 years have been shown in table 3.

It appears from table 3 that a less percentage of students secured A grade

	P			·	
Year	Grade - A	Grade - B	Grade - C	Grade - D	Grade - E
	80%/above	65%-79%	50%-64%	35%-49%	34%/ below
2007	4	13	27	32	24
2008	3	15	31	30	21
2009	4	16	22	36	22
2010	3	14	24	35	24
2011	4	13	25	36	22
Mean	3.6	14.2	25.8	33.8	22.6

Table 3Mean percentage Achievement of disable children during last 5 years

or 80 percent and above marks. Large number of students about 33.8 mean percentage have got D grade. During last five consecutive years higher grade scorers were least and no definite picture could emerge out of the distribution of scorers in different grades. Only it could be said that the mean percent of 'E' grade scorers declined over the five years to a small extent even at the mean level. It reveals that though a number of incentives have been provided to CWSN still their learning achievements in different years could not be improved toa satisfactory level. Mostly the mean percentages centre around relatively lower grade i.e. Grade 'D' and no conspicuous change in case of high scores i.e. at Grade 'A'.

The analysis of findings received through interview have been discussed as under

The analysis of data reveals that a number of incentives have been provided to children having disability. There are provision of tricycle; wheel chair; ankle foot orthosis; knee foot orthosis ; Banishree Scholarship (Rs.100/- from class I to V and Rs.160 from Class VI to VIII); Madhubabu pension scheme (Rs.300/-per month to each category of child); escort charge of Rs.300/- having 75 percent disability to Physically handicapped, 65 percent and above in case of mental retarded and to the total blind, hearing aid to the hearing impaired children, blind stick, crutches, learning kit. Besides above, physiotherapy to Orthopedically Handicapped, speech therapy to Speech Impaired and Hearing Impaired students are provided by experts. Home based training has been provided by Integrated Education Volunteers (IEV) and Block Resource Teachers (BRT). Peers sensitization programme has been introduced for all categories. Peer learning has been emphasized in classroom teaching.

Theme based programme conducted for initiating them to participate in different competitions. Pre-vocational training to Mentally Retarded (MR) students has been organized. They get training in making candle, chalk, paper pocket. Case history of each child has been prepared. Training to parents of disabled children organized. Life skill training for disabled childrenare organized. Ramps have been developed for Orthopedically Handicapped (O.H.) students. Free medical treatment and health check camp are organized. Certificate of disability issued to the concerned students. It was found that the Breily have been procured and efforts were taken to distribute the same to the concerned for use. Process have been initiated to train the parents of its use. Besides above they also get free text books, mid-day meal, Children from below poverty line (BPL) and Girls get free uniform. Students enrolled in 2007 retained till 2011. No dropout was reported. But very few students showed high percentage of learning achievement. Findings

- 1. Children with SI, OH, CP got hundred percent assistance through SSA where as 8.1 percent of MR and LD got assistance. About 10.8 percent having hearing impairment and 5.4 percent having multiple disability availed incentives. No children with visual impairment got assistance.
- 2. No drop out was detected. Students enrolled in 2007 retained till 2011. The mean enrolments of children till 2010 were increasing but during 2011 considerable decline was estimated.
- 3. In the period 2077-11, about 4% of disabled scored A grade, B grade 14%, C grade 26%, D grade 34% and E Grade 22 %.

Conclusion

From the present study it may be concluded that interventions provided through SSA have a positive influence upon the enrolment and retention in case of CWSN. It could draw the disable children to the fold of the schools and made them comparatively less stressed from the social stigma. They could get opportunity to pursue studies and enjoy comfortable social atmosphere in the community. Their stay in the school could be considered a success for better personality development of each learner suffering from the problem. In general their learning achievement could not reach to a level of satisfaction when it is compared with normal children. Now, it becomes essential that expertise inputs need be provided to have more individualised care for enhancing learning achievement in general. Still 3.6 mean percent of learners could achieve Grade 'A' which needs appreciation. If the effort continues further then there is satisfactory reason to believe that those so called disabled learners will be able to progress well.

REFERENCES

- Action Aid (2003). Impact of assessment of Integrated Education of Differently able (IED) programme. DPEP, Orissa Research Abstract, OPEPA, 5, 21-23.
- Awasthi,K. and Patel, R.C. (2008). Perception of Community Members regarding SSA and its implementation. Indian Educational Review, 44 (2), 41-61
- Mishra; J.K.(2007).Use of aids and appliances supplied under inclusive education in Rayagada district. Research Abstract . OPEPA, 7, 12-14
- Monitoring Formats For Quality Dimensions under SSA (2006-07) Department of Elementary Education NCERT.
- National Curriculum Framework 2005; NCERT, New Delhi,83-85
- Sarva Shiksha Abhiyan (2005). A programme for Universal Elementary Education,
- Manual for Planning and Appraisal, Department of Elementary Education Literacy, Ministry of Human Resource Department, Government of India, January.
- Sarangi; P.M.; and Panda, S.C. (2010). Status of SSA Interventions in elementary schools of Jatni Block of Odisha: An analysis, Journal of Education Chronicle, 1(1), 29-36
- Soni, R.B.L. (2004). Intervention for Education of Children with Disabilities under SSA- A status study. NCERT, New Delhi, Indian Educational Abstracts, 8 (1), 54-55.
- The Time of India; Learning blood disorders to get disability status, page-1, Sunday, October 21, 2012, Bhubaneswar.
- Yadav, R.S.; Kumar, P; Mallik, V. (2012). Implementation of SSA in Haryana state in the context of RTE, 2009: Some Issues and Needed Considerations. 2(1), 41-44.

* Dr. Prabhat Manjari Sarangi : Research Scholar, Regional Institute of Education. Bhubaneshwar. Odisha. e-mail id: pmsarangi3@yahoo.com

EDUSEARCH					
ISSN: 0976 - 1160					
Vol 4. No. 1. April-2013					

Teachers' Belief on Mathematics Textbook of Equitable Education System

Sudarmathi, R. * & Dr. William Dharma Raja * *

Abstract

The present study investigates the Teachers' Belief on Standard X Mathematics Textbook of Equitable Education System (EES), recently introduced in Tamil Nadu. Sample of the study consisted of 200 Standard X math's teachers in Tirunelveli District taken through random sampling technique. The stratification has been done on the basis of sex, locality of the school, type of school, management of the school, educational qualification and working experience. Statistical techniques such as Mean, S.D, 't' test and 'F' tests were used to analyse the data. It is found that there is no significant difference in the Belief of the teachers on Standard X Mathematics Textbook of EES with regard to Sex, Age and Educational qualification, Type of School and Management of School. The teachers highlighted that the EES Mathematics textbook will help the students to face the competitive examinations and develop creativity of the students. In the views of teachers, worked problems are very difficult and students could not understand them.

Introduction

Curriculum is more than just a body of knowledge, a list of subjects to be studied, or a syllabus- it is all the planned experiences which learners may be exposed to in order to achieve the learning goals (Srivastava & Kumari, 2005). According to Benjamin Peirce, Mathematics is the science that draws necessary conclusions and to Brtrand Russell(1903), All Mathematics is Symbolic Logic (Fher & Phillips, 2004). Mathematics gives an easy and early opportunity to make independent discoveries. A broad and balanced curriculum will enable all students to develop the qualities and skills needed

for adult and working life. Students must become independent and lifelong learners if they are to function effectively on an environment of continuous change. Learning is more effective when students see the connections and relationships between ideas, people, events and processes as in real life situations. Learning involves developing values as well as knowledge and skills. Students need to understand and respect diversity, value equity and develop a sense of social responsibility, in order to play a meaningful role in society. The importance of learning mathematics is not only because of its utilitarian purposes but also because it helps to

develop the aesthetic and cultural values and positive attitudes necessary for the development of self-fulfillment (http:// www.ncert.nic.in).

The study of mathematics helps to train the minds of the learners and assist them in the development of logical thinking and spatial awareness; it provides them with a powerful means of communication-to represent, to explain and to predict-and foster qualities of perseverance, and flexibility, imagination self management and working skills as well as positive attitudes to life's challenges. Samacheer Kalvi or Tamil Nadu Uniform System of School Education (USSE) or Equitable Education System (EES) is a Government of Tamil Nadu -programme integrate the various school to educational systems within the state which has over 1.2 crore students in four streams of school education comprising about 45,000 state board schools, 11,000 matriculation schools, 25 oriental schools and 50 Anglo-Indian schools, with different syllabus, textbooks and schemes of examinations. EES has been implemented by Tamil Nadu Uniform System of School Education Act (2010) which paves way for quality education to all children without any discrimination based on their economic, social or cultural background. The new system of education was introduced for classes I and VI in the 2010-11 academic year and for other classes up to X, in 2011-12.

The Government of Tamilnadu came forward to introduce the uniform education with the recommendation of Muthukumaran committee. Muthukumaran Committee says uniform education's important content is creating of building nearby schools to children. The Government of Tamil Nadu includes the medium of instruction as Tamil, providing education in the mother tongue. EES provides new curriculum. The mathematics under EES textbook gives importance to develop soft skills. It travels in the path of improving the quality of education. The textbook plays a crucial role in generating educative interactions in classroom between the teacher and learners (www.indiato gether.org).

Objectives of the Study

- 1. To study the teachers' belief on Standard X Mathematics Text book of EES with regard to select background variables.
- 2. To get the suggestions of the teachers to improve the EES Mathematics Textbook.

The selected background variables are gender, age, educational qualification, type of school and management of the school.

Hypotheses

- 1. There will be no significant difference in the Teachers' Belief on Standard X -Mathematics Textbook of EES with regard to personal variables namely gender, age and educational qualification.
- 2. There will be no significant difference in the Teachers' Belief on Standard X -Mathematics Textbook of EES with regard to institutional variables namely *type of school and management of the school.*

Method Used in the Study

Survey type of research was used in the present study.

Sample

In Tirunelveli District, there are 2,647 schools which comprises of Government schools, Aided Schools and Unaided Schools. Two hundered Mathematics teachers from 60 schools were taken as the sample for the study. The random sampling technique was used to select the sample.

Tools used

The investigators developed a tool named as 'SuWi's Evaluation Scale for Mathematics Textbook" (SESMT) with four point scale which included both positive and negative statements under four dimensions namely problem solving, activities, subject matter and illustration. It consisted 44 items initially.

Based on the suggestions of two experts, the items were revised. After item analysis, the number of items had been shrunk into 34 items. The total score on the scale describes the teachers' belief on Standard X Mathematics Textbook of EES.

Analysis of Data

In the present study, mean, S.D, t- test and F- test were used as statistical techniques.

Table 1 shows that t- value is less than the tabulated value .05 at df. 198 and hence the null hypothesis is accepted. It shows that there is no significant difference in the teachers' belief on standard x mathematics textbook of EES with regard to personal variables namely gender, age and educational qualification. Table 2 shows that P value is greater than .05 and hence the null hypothesis is accepted. It shows that there is no significant difference in the teachers' belief on standard x mathematics textbook of EES with regard to institutional namely the type of school and management of school.

Findings:

- 1. There is no significant difference in the Teachers' Belief on Standard X Mathematics Textbook of EES with regard to Sex, Age, Educational qualification, Type of School, and Management of the School.
- 2. The three top most positive opinions about the EES Textbook by the teachers were:

Personal variable		No.	Mean	SD	df	t value	P value
Sex	Male	65	77.91	9.622	198	0.826	0.410(NS)
	Female	135	78.93	7.472			
Age	below 35	83	79.37	9.598	198	1.121	0.264(NS)
	Above 35	117	78.05	7.079			
Educational	UG	83	78.19	9.184	198	0.589	0.557(NS)
Qualification	PG	117	78.89	7.492			

Significance of difference in the Teachers' Belief on Standard X Mathematics Textbook of EES with regard to personal variables

Table 1

NS - Not Significant at 5% level

Table 2

Significance of difference in Teachers' Belief on Standard X Mathematics Textbook of EES with regard to the institutional variables

Institutional	Source of	SS	MSS	df	'F' value	P value
variable	variable					
Type of	Between	13.522	6.76	2	0.099	0.906(NS)
School	Within	13438.48	68.22	197		
	Total	13452.00		199		
Management	Between	151.52	75.76	2	1.122	0.328(NS)
of School	Within	13300.48	67.52	197	-	
	Total	13452.00		199	ł	

NS - Not Significant at 5% level

96

Teachers' Belief on Mathematics.....by Sudarmathi, R. & Dr. William Dharma Raja

- i. All the topics are explained with appropriate diagrams (by 34% of the teachers).
- ii. The *samacheer book has* scope for developing creativity of the students (by 27% of the teachers).
- iii. The worked examples are explained very clearly to the level of students (by 22% of the teachers).
- 3. The other positive aspects opined by the teachers were:
 - i. The historical background of the inventors are well explained in this book.
 - ii. Important topics are highlighted in this book.
 - iii. This content is correlated with dayto-day life and other subjects.
 - iv. The syllabus is updated.
 - v. Common notations are used in all the problems.
 - vi. Blue print given in the textbook is very useful for the students.
 - vii. It will help the students to face the competitive examinations.
 - viii. One mark Questions and Answers are given separately.
 - ix. The syllabus contributes for extracurricular activities.
 - x. The construction of the geometry is more useful for the students and it can be understood easily.
- 4. The three top most Negative aspects of the EES Textbook as opined by the teachers were:
 - i. Worked problems are very difficult to understand by the students (by 25% of the teachers).
 - ii. The exercise problems are not related to the worked problems (by 18% of the teachers).
 - iii.The syllabus is too heavy to finish (by 17% of the teachers).
- 5. The other Negative aspects opined by the teachers were:
 - i.The syllabus is not suitable for today's advanced trend.
 - ii. Parents cannot help their children

without others' help.

- iii. Size of the book is too big to carry.
- iv. More errors in the problems.
- v. It is not suited for rural children.
- vi. Difficult for State board students.
- vii.The book contains too many theorems and it is difficult for average students.
- viii. It derives more work load on the part of the teachers
- 6.The suggestions of the teachers to improve the Mathematics Textbook
 - i. As far as the students are concerned the blue print makes them to skip too many chapters.
 - ii. Plenty of worked out examples and exercises may make them feel bored.
 - iii. The book should be prepared to the level of Government School students and Tamil Medium students.
 - iv. The book should be printed without errors.
 - v. Worked out examples shall be related to Exercise problems; more worked out examples should be added; Examples must be elaborative.
 - vi.The committee set up for the preparation of the curriculum should have consisted of experienced and efficient teachers who are sound in psychology of the students and the need of the present day.
 - vii. Once textbook is prepared the same should be circulated among the experts concerned for their careful perusal and repeated analysis.

Recommendations

The textbook should be made error free because it is the only readily available access for the majority of the rural students who are mostly first generation learners. The Blue Print may also be revised once again. Various committees or commissions can be raised to renew the present textbook to add / delete / modify the concepts which are either heavily loaded or repeated and not be allowed to rote memorization. The textbook may be modified suitably to facilitate self-learning. Teachers ought to be imparted training in the preparation of such instructional aids such as charts, diagrams, postures, pictures etc. as they would be better than textual learning. The Government should give the in-service and pre-service training to teachers about the content of the textbook.

REFERENCES

- Fehr & Phillips (2004). *Teacing modern mathematics in the secondary school*. London: Addison –Wesley Publishing Company.
- http://www.ncert.nic.in/sites/publication/schoolcurriculum/NCFR%202005 (accessed on 26.2.2012).

James, Anice (2005). Teaching of mathematics. Hyderabad: Neelkamal Publications.

Srivastava & Kumari (2005). Curriculum and Instruction. Delhi: Isha Books. (www.indiatogether.org).

* Sudarmathi, R. : Lecturer, Sri Muppidathi Amman College of Education, Adaikalapattinam, Tirunelveli Distt. (TN) e-mail id: light_sudar@yahoo.in
** Dr. William Dharma Raja. : Asstt. Prof & Head, Dept. of Education, Manonmaniam Sundarnar Uni., Tirunelveli. (TN) e-mail id: widh07@yahoo.com

98

Awareness about Dyslexia among Teachersby Dr. Rachita Shrivastava Roy



Awareness about Dyslexia among Teachers and Parents with reference to Hindi Feature Film - 'Tare Jamin Par'

Dr. Rachita Shrivastava Roy *

Abstract

Present study tries to know the role of Hindi Feature Film Taare Zameen Par in spreading awareness about dyslexia on the subject. Dyslexia is a reading disability that occurs when the brain does not properly recognize and process certain symbols. 60 respondents (30 primary school teachers and 30 parents) were selected by purposive random sampling from Delhi (Urban and Rural). Data were collected by using self made questionnaire and interview. The results of the study revealed that significant difference in awareness level of dyslexia between urban and rural teachers and urban and rural parents. People who have seen the film have more awareness than those who have not seen and there is a positive change in attitude among the teachers and parents who have seen the Film.

Introduction

Dyslexia is an often-misunderstood, confusing term for reading problems. The word dyslexia is made up of two different parts: dys meaning not or difficult, and lexica meaning words, reading, or language. So quite literally, dyslexia means difficulty with words (Catts & Kamhi, 2005). Reading disability, or dyslexia, is the most common learning disability. Although it is considered to be a receptive language-based learning disability in the research literature, dyslexia also affects one's expressive language skills (Handler SM, Fierson WM, 2011). Researchers at MIT found that people with dyslexia exhibited impaired voice-recognition abilities (Tyler K. Perrachione, Stephanie N. Del Tufo, John *D.E.Gabrieli*, 2011). Dyslexia is a difficulty in learning to read despite traditional instruction, average intelligence, and an adequate opportunity to learn. It is caused by impairment in the brain's ability to translate images received from the eyes or ears into understandable language. It does not result from vision or hearing problems. It is not due to mental retardation, brain damage, or a lack of intelligence.

Film 'Tare Zameen Par' directed by Amir Khan attracts the attention of society on children living with dyslexia through Ishan Awasthi. Role of teacher is very important in child's development. Amir Khan knows this fact in his film. There is no any medicine to cure dyslexia but support and right attitude, emotional
attachment etc. are some variables which promote such children to live honorably in the society. Film affects the human mind effectively. Very few studies have been done in this direction. Hence why the researcher carried out this study.

Objectives

Specific objectives of the study are:

- 1. To study the awareness level about dyslexia among teachers and parents.
- 2. To compare awareness levels of urban and rural teachers.
- 3. To compare awareness levels of urban and rural parents.
- 4. To see the Effect of Hindi feature Film '*Tare Zameen Par*' on teachers and parents.

Sample

A sample of 60 (30 teaches and 30 parents) were selected randomly from various primary schools of urban and rural area of Delhi.

Sample							
Groups	Rural	Urban	Total				
Teachers	15	15	30				
Parents	15	15	30				
Total	30	30	60				

Sample

Tools

For collecting the data regarding dyslexia awareness and attitudinal change self made questionnaire and Interview were employed.

Data Analysis

The collected data was analyzed by using percentage and t-test, to find out the significance of mean differences. The results of the study are presented here under :

Table -1 shows that 56% of sample has shown average in awareness about dyslexia while 8% is highly aware and 35% placed in the low arareness group.

The table -2 shows that the t-value is 5.37 for testing the significance of mean difference in awareness of urban and rural teachers which is significant at 0.01 level.

Table – 1 Awareness Level of Dyslexia in Teachers and Parents (N=60)

Group	Locale	High		Ave.		Low	
		f	%	f	%	f	%
Teachres	Urban	4	26	11	73	0	0
	Rural	0	0	8	53	7	46
Parents	Urban	1	7	14	93	0	0
	Rural	0	0	1	7	14	93
	Total	5	8	34	56	21	35

Table – 2

Comparison of Awareness about Dyslexia of Urban and Rural Teachers

Teachers	Mean	$\Box D^2$	df	t-Value
Urban	10.93	56.02	29	5.37
Rural	7.13	51.64		p<.01

Table – 3 Comparison of Awareness about Dyslexia of Urban and Rural Parents

Parents	Mean	$\Box D^2$	df	t-Value
Urban	9.33	113.33	29	5.91
Rural	4.8	26.4		p<.01

Table-3 indicates that the mean score of awareness about dyslexia of urban parents is 9.53 while rural parents are 4.8. The calculated t-value is 5.91 which is significant at 0.01 level.

Interview Analysis

A study of Impact of film on teachers and parents was done through interview. It reveals that what changes in attitude about dyslexia comes out in those teachers and parents who have seen the film *Tare zameen Par.* those who have seen the film they clearly understands that dyslexia is a reading disability. It is can be improve through exercises. They have accepted that they treat such children as mentally retarded and abnormal child but it is not so. Misconceptions now passed away.

of Squares(MS

Awareness about Dyslexia among Teachersby Dr. Rachita Shrivastava Roy

Findings

- 1. Dyslexia awareness in rural area is much less than urban areas.
- 2. There is a significant difference in awareness level of Dyslexia between rural and urban teachers.
- 3. There is a significant difference in awareness level of Dyslexia between rural and urban parents.
- 4. In both the groups, who have seen the Film 'Tare Zameen Par' have more

awareness about Dyslexia than those who have not seen.

5. There is a positive change in attitude among the teachers and parents who have seen the Film.

Conclusion

Film has good impact on teachers and parents. The film '*Tare zameen Par*' gives message to all-'Each individual is unique, with unique talents, but it requires encouragement and nurturing from the environment for it to flourish'.

REFERENCES

- Catts, H.W., & Kamhi, A.G. (2005). Language and reading disabilities (2nd ed.). Boston: Pearson.
- Handler SM, Fierson WM, Section on Ophthalmology et al. (2011). "Learning disabilities, dyslexia, and vision". Learning disabilities, dyslexia, and vision. 127 (3): e818-56.
- Tyler K. Perrachione, Stephanie N. Del Tufo¹, John D. E. Gabrieli (2011) Human Voice Recognition Depends on Language Ability Science 29 July 2011: Vol. 333 no. 6042 p. 595.

* Dr. Rachita Shrivastava Roy : Asstt. Prof., Govt. VYT Autonomous PG College, Durg. (C.G.). E-mail : srachita@yahoo.com

EDUSEARCH					
ISSN: 0976 - 1160					
Vol 4. No. 1. April-2013					

Vygotskys' Social Interaction Theory for Cognitive Growth : A Descriptive Analysis

Dr. R. Subramani Mudaliar *

Abstract

Vygotsky's social interaction theory of cognitive growth became prominent in the recent years. for it emphasized the constructivism on the part of the child. The interaction of the child with the environment was emphasized by taking into consideration the social milieu. This theory holds that the cognitive abilities are socially transmitted, constrined, nurtured and encouraged for the proper development of the individual. In this paper an attempt is made to describe the Vygotsky's Social interaction theory for cognitive growth. Students develop cognitive abilities gradually through interaction with the environment and consultation with the facilitator (teacher). The zone of proximal distance in terms of learning and experience makes a big difference for the learner and quality of learning. The context presented is for the science and mathematics subjects. But, it is equally true that the other social subjects can be taught properly by this model. The social emphasis creates a continuous interaction, sensitization and meaning that generates as a group and social milieu.

Introduction:

Social interaction produces cognitive change the influence of social contexts on children's cognitive development is an area of research in Social Psychology. The contemporary view of the relationship is that cognitive growth results from social interaction. Cognitive abilities considered in this theory are: (i)cognitive abilities are socially transmitted, (ii)cognitive abilities are socially constrained, (iii)Cognitive abilities are socially nurtured and (iv) Cognitive abilities are socially encouraged. These ideas are the contributions of the Russian Psychologist Lev Vygotsky to the understanding of the conceptual c development of the children.

Vygotsky distinguishes between two types of concepts. They are :(i) spontaneous, and (ii) scientific. Spontaneous concepts are the conceptual products of the child's reflections on every day experiences. These experiences may be considered for reflection. On continuous reflection of the spontaneous concepts on a logical basis one could arrive at scientific concept. The spontaneous concept, experiences of the individual provides the individual the motivation, the involvement and spirit of enquiry in chemistry. The day to day experiences of the application of chemistry in life is an example. It applies at home in the kitchen,

in the school, in the laboratory and in the garden. The chemical processes are considered as gross reactions and one relates it to the properties for example, common salt is used for the food preparation in the required quantity. A child is able to tell the taste of the salt. Hershel is also able to explain the common salt in the lemon juice by tasting the juice.

(ii) Scientific concepts are the product of formal schooling. Spontaneous concepts, like spontaneous theories, are slow to change.Vygotsky's theory recognizes the importance of child adult dialogues in concept growth. In these dialogues, the child's spontaneous concepts come into contact with the adult's scientific ones and as a result, the spontaneous concepts are modified. In Vygotsky's view, scientific concepts develop as the result of dialogues between student and teacher. These dialogues between the chemistry teacher and students takes place in the classroom, laboratory and sometimes in the field experiments. In this process the scientific concepts develop in children. The active interaction of the child with the teacher is a crucial component in the development of the scientific concept. The teacher acts as a facilitator.

Reports of the effects of interactions in formal educational settings describe various conceptual changes, including, elaboration of concepts, becoming aware of one's own learning process, raising cognitive level, and improving problem solving capabilities. The work of Smith demonstrates that when students with different ideas are asked to reach agreement, achievement and retention are promoted. The positive effects of working co-operatively on achievement, retention, and critical reasoning skills have been reported. Social interactions are stimulated by various tasks. These include solving problems for example, defining a taxonomic system; separation

of a mixture, explain the nature of combustion in a given condition and identify whether it is incomplete combustion, complete combustion or reaching consensus on an explanation for a physical phenomenon.

Social interactions are conducted in different ways. In some instances, students are assigned specific roles, and in others, the classroom is structured around an activity as in the Teams-Games-Tournament strategy. The socialpsychological research reported supports the contention that a teaching strategy that promotes teacher-student and student-student interaction should be effective in promoting cognitive growth, but gives little insight into what the mechanisms are that promote growth. Seminar would be the ideal example, for the student's participation with each other and interacting with the teacher as a facilitator.

Students learn about higher order thinking skills through observations of the teacher who models in interactions with students and observations and interpretations of physical events, the skills that he or she expects the students to develop in them for example, in the laboratory the teacher demonstrates an experiment and students closely follows the experimental demonstration in order to learn the concept, and the skills associated with it. Students do the experiments independently or in the guidance of a teacher. Moderation of group interactions by the teacher also contributes to student's understanding of science concepts, principles, and the development of higher order thinking skills. The psychological mechanisms by which these affect learning are related to principles from cognitive, behavioral and social psychology. An example is student's use of scientific terminology. The posited effects of the teaching strategy on the development of the higher

order thinking skills-learning to learn, problem solving, and scientific inquiryare based on a principle from behavioral psychology. The principle is straight forward, creates an environment in which the student can exhibit the desired skills and where the skills can be refined by feedback from the teacher and peers.

According to the principles of behavioral psychology, student behaviors those approximate desirable behaviors that are rewarded. As the behavior becomes more frequent, the reward schedule is modified -the desired behavior is awarded only occasionally. This could be well experimented and observed in the laboratory. The student does experiment, reviews it individually, submits it for peer review, teacher examines it and the changes that ensue help the individual to grow better in terms of concept and skills.

Peer interaction is more effective than teacher lectures in conveying scientific knowledge because peers 'explanations are simpler than adults' and as a consequence are better understood by the learner. In other words, the distance between two students' understanding is far less than the distance between a students' understanding and a teachers', hence communication of ideas is facilitated. Often a peer is quicker to identify a point of confusion than a teacher. The interactive nature of the teaching strategy is based on an interpretation of a tenet of cognitive psychology proposed by David Ausubel and elaborated by Novak. The discussion of students in the laboratory about each other's experiments reveals a lot more on the conceptual understanding. Sometimes, a student in the next rack or table will help in the explaining a point of the experiment, or tell how to go about the rest of the experiment in terms of procedure. The comparison of results of the experiment also helps the students

to know each other in terms of the acquisition of skills and the development of the concept in chemistry.

Vygotsky's Social Interaction as a Teaching Strategy

Vygotsky considers learning as an active process that involves the learner in conceptualization of the task and performing the task in a more appropriate way. The teacher is a facilitator that gives the opportunity to students to select the task that is relevant to the ability of the student. The most relevant way to ensure more participation is to prepare a written proposal of the task to be accomplished or a project proposal to be drafted for the planning of the project. The teaching strategy has four phases that sequentially present in the process to involve learners actively and promote more peer interaction.

Phase 1:

Preparing a written proposal: The student prepares a written proposal on the task to be accomplished. While preparing proposal the student thinks of the others thinking on the task and the probable questions that may be posed on presentation of the task. On presentation of the task, student's gets feedback from peers and teacher for review, replan and change the methods to suit the environment. The student thinks of the strengthens and weaknesses of one's ideas to build the proper strategy. The attempt to get the consensus on the probable approach to the problem in the group is the most difficult and challenging task for the presenter, for example, preparation for seminar through preparing a proposal. The peer review, teacher's consultation, will bring new information that could bring new understanding to the student. The group interaction and the teacher's guidance would facilitate completion of the task in a more appropriate way. At the earlier stage the child is not able to write the

proposal in the written form. In this case, the child can draw a plan; student could ask a question or orally present the problem for discussion.

The written proposal of the postadolescent is the beginning of the thinking and it may need modification or revision. There may be scholars to think that this strategy is rather difficult to implement for all the students and teachers are not trained or oriented to this method of presentation.

Phase 2:

Elaboration Phase: The elaboration phase begins with the individual presentation to the group. After the presentation is completed, student group thinks to reconsider the presentation for modification to arrive at consensus. The discussion on presentation facilitates more clear understanding of the task and the method of inquiry that will result in successful accomplishment of the task. Consensus may mean agreement on a project plan, a strategy for the completion of the task, or an explanation for an observation. Consensus can also mean agreeing to disagree. In a given situation, the group may consider one or two plans and look for the validity of its probable implementation. The child-adult dialogue results in a more refined idea, better plan and more successful approach to implementation of the task. The ideal example may be seminar presentation, project proposal presentation; group discussion on significant problem in Education, Psychology, Science or technology.

The resolution passed by the group as a consensus is to be circulated among all the members of the group. Giving a personal copy will facilitate more discussion or memory of the group to sustain the thinking.

Phase 3:

Developing skills and assessment: Students while participating in the group

activities will have adequate opportunity to refine and practice many skills, including science learning and assessment skills. This facilitates applying learning to personal and social life. Here one may argue that would it be possible to apply all that one has learnt to personal and social life. The answer could be that the principles and practice could show more difference resulting in more anomalies in the situation. It may be that a few thinking fit the situation to result in a more productive thinking and meaningful appreciation. The student's presentation in written or oral form brings more structure and better organization. The student develops listening skills. He/ she tries to point out the ideas- its strengths and weaknesses in the group. The quality of one's ideas of peers could be assessed for the meaningful application to the strategy. The assessment skills that are integral to the situation and the nature of the t ask bring more a plane of judgment on qualities and values. This effort may result in controversies within the group over the quality of information and the reasonableness of assumptions and arguments. This leads the group to develop standards for evidence and logical argumentation.

The students find it difficult to establish standards. However, an attempt is made to develop logical argumentation to move towards a standard that is set by the group in discussion and implementation of ideas. The role of the teacher is to help the group to recognize the need for standards and facilitate developing standards in the group.

Phase 4:

Implementation of the Standard: The teacher takes the responsibilities to set the standard in the group. The group takes the responsibility of monitoring to attain the standard. Teacher also facilitates the students to develop abilities, skills and competencies to move towards the set standards. Thus, individual students learn about these criteria and their application. These criteria approximate to those used by the scientific community. The students try to relate the goals of instruction with the content and process for validation of the principles in practice. This facilitates the student to assess their own understanding of science content and development of science related skills.

Challenges in Implementation

- 1. The most significant challenge is knowing how to manage the intellectual flow of the group's inquiry. The teacher is constantly faced with the decisions about content and process. How much of discussion will result in proper consensus in the group? What is the right direction of the group's discussion? When the teacher has to direct the group to move from one to another? How to ensure that each individual in the group is equally involved in the discussion? These questions make the teacher to be more prepared, more goal oriented to follow a path of smooth success in achieving concepts and skills.
- 2. Selection of the problem as a task is another challenge for the teacher. The problem that is suitable as a task to the learner, for his/her ability, interest and aptitude and its selection is the most difficult task. The task that is prescribed by the Board (School or College) and the task that is envisioned bv implementation may not match in all respects to the situation. The student's knowledge, understanding and skills may not be adequate to meet the goals of the board. The teacher facilitates the student to learn new understanding and skills to fulfill the requirement of the board (school, state).Students work and their consensus on the implementation of the tasks will

generate new questions and expand the narrowly defined task presented by the teacher. The most important and difficult task for the teacher is to find and select the most appropriate and suitable tasks for the students to ensure goal attainment and acquire better skills.

Educational Implications of Vygotsky's theory of learning for teaching and learning:

Learning Capacity:

Vygotsky considers that cognitive growth as learning capacity that results from social interaction.Vygotsky describes cognitive abilities as (i) socially transmitted (ii) socially constrained (iii) socially nurtured, and (iv) socially encouraged to result in desirable social processes of education and product of learning.

Role of Practice in Learning:

The role of practice in learning is clearly appreciated for the spontaneous concepts that get generated in daily experiences group together to form the scientific concepts of the fundamental relation to the reality. The practice results in more gradual development and maintenance of the cognitive abilities. The ease with which the cognitive abilities are demonstrated depends on the extent of practice of the cognitive ability for example; writing of chemical equations and balancing the equation. More practice may lead to refinement of the cognitive ability to form finer cognitive structures of higher order. The learner may be able to develop a cognitive map of the set of related equations leading on to the relational understanding. The social encouragement, enduring nurturance will maintain the motivation to continue the activity as learning and further as reinforcement. Providing appropriate examples, activities and continuing the thinking of the student will result in more reinforcement.

Motivation:

Motivation in this theory is external to the individual and it is socially construed to become a precursor for change. The motivation is sustained due to the nurturing behavior of the teacher and the environment to continue the activity in the desired direction. The social interactions may be represented as the observation of the process, problem solving, developing skills, and cooperation with peers. These to a great extent need facilitative teacher and a continuously enriching environment with sustained growth for example, the student could learn organic chemistry of the natural products by closely interacting with the medicinal botany students and teachers. The close observation of the extraction and purification of the organic compounds will result in more closely understanding than merely attending a lecture or reading a book on these topics.

In order to teach the concept of Acids and Bases, the learner is familiarized with two types of acids(i)Strong acid for example, Sulphuric acid, Hydrochloric acid, Nitric acid,(ii)weak acid for example, Citric acid. Further, the student is introduced to different acids such as Hydrochloric acid HCl, Nitric acid, Pyruvic acid, Citric acid etc.The structure of acid as an electron deficient substance is cognized through reactions. Student is given opportunity to understand the properties of acid such as it is corrosive, it accepts electrons, and it gets neutralized by an equal proportion of appropriate base. The student could be placed in a laboratory with a scientist to observe the chemical reactions and use of acids and bases in different transformations. Student may be given opportunity to ask relevant questions, clarifications, doubts, and observations. Students could be provided certain exercises to distinguish acids as (i) in organic (ii) organic in its origin and

compare their properties and Student will transformation. get opportunities to identify such organic transformations in the living bodies and prepare a report on the role of acid base in the metabolism of organisms. Students may visit the website on acid base prepared by the Institute of Technology, Pittsburgh. Teachers could support investigations or observations by taking them to museum, showing pictures, and identify simple experiments to identify mechanisms, tell about the biography of scientists such as Linus Pauling.

Memory and Forgetting:

The provision for linking the spontaneous experiences through regular organization into the scientific concepts facilitates the acquisition and organization of memory in a more organized pattern. However, the utilization of the temporary memory and encouragement for developing linkages through nurturing environment enhances the memory of the individual learner. Developing learner's web for chemistry may create an environment for interaction that sustains the knowledge. The teacher could act as the model for the student to help in developing appropriate structures along with the pneumonic.

Students may be provided tutorial, additional supportive books, materials, teaching/learning aids. Students could be shown movies on the topics of difficulty to solve problems of the learner.Counselling sessions, focused group discussion; peer discussion will result in more memory and reduce forgetting. The simple problem solving exercises after every unit and its practice in small groups will result in better memory for the subject chemistry.

Transfer of Learning:

There is a view that the transfer of learning takes place in horizontal way than in the vertical form. In the recent studies, the vertical growth of the knowledge is considered more important. The involvement of student in activities facilitates transfer of learning. The organization of such experiences is challenge for teachers and students. The transfer of learning is facilitated when the teacher uses the more learner oriented strategies of learning such as:

- Use of multi-modal teaching –learning in chemistry.
- Use of laboratory activities, use of field kits.
- Use of projects sponsored by schools and scientific agencies.
- Showing movies on topics of chemistry.
- Training and Participation in Science Olympiads, Mathematics Olympiads etc,
- Encouraging students to participate in Eco clubs, science clubs, green chemistry etc,
- Demonstrating the use of new equipments, accessories in the laboratory.
- Safety in laboratory
- Showing movies in chemistry.
- Describing the biography of scientists.etc,

Comprehension and Insight: The comprehension is facilitated by more coordination in learning, discussion with definite goal, providing cognitive assistance when required, peer discussion, activities and opportunity for rehearsal in many forms. The topics of learning in chemistry could be enhanced with the organization of visit of students to milk dairy, chemical factories, chemistry laboratories, museum, field trips to places of high pollution and testing using field kits.

The children could be encouraged to ask questions, post their questions on the web, ask questions in the classroom, put up a wall paper, poster, raise discussion points, give or suggest solutions to problems in different areas for discussion. Arrange for meeting with the personnel to describe their experiences, demonstrate, explain and show problems of relevance and the possible solutions. Visits of scientists, technologists will facilitate thinking. The organization of the chemistry forum will facilitate discussion. The Sarabhai Community Science Centre, Ahmadabad has provided such opportunities to teachers and students, The Science centre (Astronomy), Pune, Nehru Science Centre, Worli, Mumbai also have tried to provide such environment. The opportunities for the children to do activities and learning in a non-threatening environment will bring more co-ordination of experiences resulting in development of insight in students.

This model is scientific and needs more preparation on the part of the teacher to implement in the classroom. This model could be used for teaching of science (Chemistry), mathematics, technology etc,.Students will be learning better in this model with more effort and more involvement of students in learning.

REFERENCES

Murthy, M.R. 2005 Psychology of Learning, Jaipur: Aavishkar publishers, Distributors, 89-91.

* Dr. R. Subramani Mudaliar: Associate Prof, CASE, Dept of Education, The MS University of Baroda, Vadodhara, (Gujarat) E-mail : subramani_mudaliar@yahoo.com

Emotional Quotient of Secondary Grade Students.....by Dr. Vikas Modi



Emotional Quotient of Secondary Grade Students with reference to their Gender

Dr. Vikas Modi *

Abstract

Emotional Quotient is one of the ways to measure a person's ability to be successful in life. Thus, personality trails, the self concept and emotional quotient strongly effect and are the strong indicators of our success in various aspects such as learning, friendship, family and participation in the community. The study was conducted to identify the emotional quotient of boys and girls of secondary classes. The sample consisted of 35 boys and 35 girls from jodhpur. The statistical techniques used were the mean, S.D. and 't' test. The result shows that there is no significant difference in the Emotional Quotient of boys and girls of Secondary class.

Introduction

Education is one of the basic activities of the people in all human societies. The root meaning of education is given as 'fringing upon', leading out or making manifest the inherit potentialities in pupils.

The main aim of education should be on the awakening of curiosity, the stimulation of creativity, the development of proper interests, attitudes and values & the building of essential skills and personality traits.

Education also helps in the independent study and capacity to think and judge for oneself, which proves helpful in developing & judging the self concept.

The most inevitable part of a person life is emotion. These emotions play quite a significant role in guiding and direction our behavior. Emotional Quotient is one of the ways to measure a person ability to be successful in life.

Thus, personality trails, the self concept and emotional Quotient strongly affect what we are disposed to do how we are disposed to do it, and how other's might react to that . So these are the strong indicator of our success in anything our world prospects our learning, our friendship, our family lives and our participation in the community.

Objective of the Study

The main objectives of the present study are as follows:-

1. To compare the Emotional Quotient of boys and girls of secondary classes.

Hypothesis

Keeping in view the objectives of the present study, the following Null

Hypothesis is framed-

1. There is no significant difference in the Emotional Quotient of boys and girls of Secondary class.

Sample

The sample of 70 students (35 boys and 35 girls) from a senior secondary school of Jodhpur, Rajsthan was taken for the present study.

Tools Used

Mangal Emotional Intelligence Inventory. By- Dr. S .K. Mangal & Mrs. Shubhra Mangal was used in the study.

Data Analysis

The researcher has classified and tabulated the data to compute Mean Score, Standard Deviation.

To compare the data of both the categories of students , the researcher calculated 't' value by 't' test The investigator felt need to see whether these Boys and Girls have an statistical significance difference so far as the self concept is concerned. The 't' test was applied to find out the significant difference between the two groups.

Table 1
t- test for the comparison of Mean
Scores of EQ with respect to Gender

Group	Ν	Mean	SD	df	t	Sig.
Boys	35	57.29	8.3	68	0.77	NS
Girls	35	58.86	8.7			

A close observation of the table 1 shows that the mean EQ of Boys is 57.29 and mean EQ of girls is 58.86.

As far as mean scores are concerned, both these groups have shown almost Emotional Quotient and the 't' value calculated by us is 0.77, which is less than the tabled value of 1.96 at 0.05 level of significance. Therefore, difference between the Means of both the groups is not significant.

Findings

1. There is no significant difference in the Emotional Quotient of boys and girls of Secondary class.

REFERENCES

Best, John.W., and Kahn, James V., "Research in Education", New Delhi:1986. Bowley,A.L., *Elements of statistics*,P.S. King and Staples Ltd., 1937. Chaturvedi, J.C., *Mathematical Statistics*, Agra, 1953 S.S.Mathur-*Educational Psychology*-1996.

* Dr. Vikas Modi : Asstt. Prof. Dept. of Education, Govt. College. Gopalgarh, Distt. Jodhpur. (Rajsthan) E-mail :vikasjodhpur1@gmail.com

Job-Stress among Secondary School Teachersby Kamaljeet Kaur & Dr.Mubarak Singh 111

EDUSEARCH				
ISSN: 0976 - 1160				
Vol 4. No. 1. April-2013				

Job-Stress among Secondary School Teachers of Jammu

Kamaljeet Kaur * & Dr. Mubarak Singh **

Abstract

In the present study an attempt is made to investigate the Job Stress of teachers working in various schools. The sample comprised of 200 teachers working in secondary schools. The data were collected by administering Job Stress Index by 'Srivastava and Singh'. The F-ratio was calculated to find out the difference in Job Stress of teachers on the basis of their locality and gender. No difference was found in the job stress of teachers working in rural and urban schools. Though there was significant difference in job stress of male and female teachers working in various secondary schools.

Introduction

We are living in an era of growing complexities and pressures where human constitution and capacities are being taxed severely. Stress is caused by any threat to organism. Stress is not just what happens to us but how one reacts to what happens to us and this reaction is controlled by our mind and emotions.

Stress is a total body reaction to any situation or agent which tends to destroy the homeostatic balance. Stress is a series of complex responses of the central nervous system (brain and spinal cord), internal nervous system and internal glands of man's body to any unusual stimulation or situation, it is the reaction to physical and emotional wear and tear on the body.

A stress is the manifestation of one's disturbed state of mind, so its cure lies

in providing equilibrium or relaxation to the mind. A certain amount of stress is, in fact, essential to push ahead in life.

The stresses relating to job have become predominant feature of modern life, exerting far reaching effects on total employees' behaviour and adjustments on as well as off-the job.

This is the reason that systematic studies of stress in organizational setting have increased dramatically over the past twothree decades. Stress related to job is generally defined in terms of relationship between person and environment.

Positive stress keeps us on our toes and enhances our performance. It is a dynamic force that distinguishes between the active business of living and passive existence. Stress becomes negative force when it hampers our ability to work efficiently. Stress is not just a mental or emotional state. It is an important risk factor in causation and progression of heart diseases.

In today's society, more stress comes from organizations which pressurize teachers to become winners. Teachers and trainees increase their own stress level by setting high goals and making unrealistic demands on themselves.

The teacher educators are responsible for the training of pupil teachers. Their adequate supervision is mandatory. Teacher educators must also work hard to develop the trainee to their fullest academic and professional potential so that they are able to discharge their duties effectively. Even after training when teachers work in the educational institutions they confront with many problems due to complexities posed by modern age. Teachers have become the scapegoat for parents, community members, and administrators.

It is true that the professional efficiency, zest and zeal for working of teachers depend to a great extent on the stress free environment in the institution. In this research study, the researcher has tried to find out the job stress of teachers working in different types of schools of Jammu.

Review of Related Literature

Fielding (1982) studied the characteristics of teachers which affect their perceived level of stress. In this study the highest level of stress was reported in interpersonal situations and second highest level was reported in new situations.

Dean (1989) investigated that a large number of stressors and stress themes across the entire school environment were significantly related to burn out. Low burn out teachers judged direct confrontation, social support, rationalization, repression and intellectualization as effective means of dealing with stress.

Richardson (1989) investigated the relationship of occupational stress and certain demographic variables to job satisfaction among professional counsellors. He found a negative relationship between overall occupational stress and job satisfaction.

Larchick (1996) studied the effect of personal life stressors on the teachers' performance. He found that the teachers who didn't had any source of support were less effective in and outside the class room situations.

In his study, *Pal* (2001) found that teachers working in public schools were facing more stress than their counterparts working in government schools.

Jamal (2006) studied organizational commitments in relation to occupational stress, job satisfaction, employees morale and socio-emotional school climate. He found that occupational stress and employees' morale as a whole and its components like work load, student misbehavior, classroom resources, poor colleague relations, etc. are predictors of organizational commitments and affective commitment.

Bindhu (2007) studied relationship between job satisfaction and stress coping skills of primary school teachers and it was found that job satisfaction differentiates male and female primary school teachers and there was positive correlation between job satisfaction and stress coping skills among primary school teachers. Park et al (2009) attempted to study job stress and depressive symptoms among Korean employees and the effects of culture on work. The results of the study indicate that job stress may play a significant role in increasing the risk of depressive symptoms, and that further preventive efforts and research are needed to reduce job stress and address health problems caused by job stress among Korean employees.

Job-Stress among Secondary School Teachersby Kamaljeet Kaur & Dr.Mubarak Singh 113

Karin et al (2010) conducted a cohort study of the relationship between coping job stress and burnout after a counselling intervention for help-seeking physicians. The three year follow-up study aimed to investigate the role of coping strategies, job stress and personality traits in burnouts reduction after counselling intervention for distressed physicians. The results of the study indicated that there was reduction in the levels of emotional exhaustion and job stress after counselling intervention of the employees and prevented burnouts.

Rehman et al (2012) studied impact of job stress on employee and found positive relationship between workload and employees' satisfaction, physical environment and employees' satisfaction. **Objectives of the Study**

Following Objectives have been setforth for the study;

- To study the difference in job stress among teachers working in Rural & Urban schools.
- To study the difference among male & female teachers in job stress.
- To find out the interactional effect of gender and locality on job stress as a criterion.

Hypotheses

Following were the hypotheses of the present study:

• There will be no significant difference in job stress among the teachers working in rural and urban schools.

- There will be no significant difference among the male teachers working in secondary schools.
- There will be no significant interactional effect of gender and locality on the variable of job-stress.

Design of the Study

Descriptive method was used in the present study by the investigators.

Population

All secondary school teachers working in Jammu tehsil comprised the population in the study.

Sample:

A cluster random sampling technique was used to select the sample for the present study. The sample comprised 200 teachers working in different schools of rural & urban areas.

Tool Used:

Occupational Stress Index constructed by Srivastava and Singh was used.

Statistical Technique Used

F-ratio technique was used to study the Job Stress of teachers working in secondary schools.

Results And Discussion

As per the results shown in Table-1 significant difference is observed between the mean scores of male and female teachers on the variable of job-stress, as F ratio has been found to be significant at 0.01 level. F ratio for the main effect sex has come out to be **12.29** which is more than the table value of at 0.01 level

Table - 1

Source of variance	SS	Df	MS	F	t-value	L/Sig.
Sex (A)	386.42	1	386.42	12.29	3.51	Significant
Locality (B)	19.22	1	19.22	0.611		NS
AxB	98.0	1	98.0	3.12	1.77	Significant
Within	6164.68	196	31.45			
Total	6668.32					

Summary of ANOVA for 2x2 Factorial Design

against 1 and 196 df. Even after computing t-value differences were significant as evidenced by table-1.

Table 2

Showing mean values of male and female teachers in the dependent variable job stress.

S.No	Category	Mean Value
1.	Male	108.17
2.	Female	105.39

Therefore, hypothesis I that there will be no significant difference between the male and female teachers working in secondary schools on the variable of job-stress is rejected.

Further it can be interpreted from the table-2 that male teacher had higher job stress as compared to female teachers as evidenced by their mean scores of 108.17 and 105.39 for male and female teachers respectively.

Table -1 further indicates that there is no significant difference between the mean scores of rural and urban teachers on the variable of job-stress as the F ratio has not been found significant at 0.05 level. F ratio for the main effect locality has come out to be 0.611 which is less than the table value of at 0.05 level against 1 and 196 df.

Therefore, hypothesis 2 that there will be no significant difference between the rural and urban teachers working in secondary schools on the variable of jobstress stands accepted in the present study. From the table- 1 it is also evident that there is significant interactional effect of gender and locality taken together on the dependent variable job stress as F ratio has been found to be significant at 0.05 level. F ratio for the interaction effect of sex and lacality has come out to be 3.12 which is more than the table value of at 0.05 level against 1 and196 df. Therefore, hypothesis 3 that there will be no significant interactional effect of sex and locality on the variable of job-stress stands rejected.

Major Findings Of The Study

- 1. No significant difference was found in job stress among the teachers working in rural and urban schools.
- 2. Significant difference was found among the male teachers working in secondary schools.
- 3. Significant interactional effect of gender and locality was found on the variable of job-stress.

Conclusion

From the above analysis and interpretation of the data, it can be concluded that the male and female teachers differ significantly in their job stress. The male teachers have higher job stress as compared to female teachers. It can be due to more pressures on male teachers as a result of modern material demands. To make the teaching effective, teachers' stress level needs to be kept minimal so that they may transact the curriculum in an effective way in the class.

Teachers economic status is gradually improving and teachers have to work earnestly to produce the citizens to compete in the global economy in 21st century. The teachers teaching in rural and urban schools should be provided equal facilities as was suggested by former President of India in terms of PURA (Provision of Urban Facilities in Rural Areas). Problem of stress among employees needs to be addressed to bring transformation in the society and to create a cutting edge of India in Knowledge Society.

REFERENCES

Aggarwal, M (1985) A study of life stresses among university students. Ph. D Thesis, Allahabad University. Job-Stress among Secondary School Teachersby Kamaljeet Kaur & Dr.Mubarak Singh 115

- Bindhu, C. M. (2007). A study of relationship between job satisfaction and stress coping skills of primary school teachers. *EduTracks*, Vol. 6 (5). In *Indian Educational Abstracts*. Vol. 7 (1&2). NCERT.
- Dean, C.J., Stressors, coping behavior and burn out in secondary school teachers. Diss. Abstracts. Vol 50 (3), 199 P.647-A.
- Fielding, M. A. (1982). Personality and situational correlation of teachers stress and bum out. *Dissertation Abstracts*. Vol. 43(02), P.400 A.
- Jamal, S. (2006). A study of organisational commitment in relation to occupational stress, job satisfaction, employees' morale and socio-emotional school climate. Ph.D.,Education, VBS Purvanchal University, Jaunpur. In *Indian Educational Abstracts*. Vol. 7 (1&2). NCERTKarin, E. Isaksson Ro, et al (2010). A three year cohort study of the relationships between coping, job stress and burnout after a counselling intervention for help seeking physicians. *BMC Public Health*. Online DOI 10.1186/1471.
- Larchick, R.F. (1996) Study of the effect of personal life stressors on teacher performance. *Dissertation Abstracts.* Vol 56 (7) P-261.
- Park Shin Goo, et al (2009). Job stress and depressive symptoms among Korean employees: the effects of culture on work. *International Archives of Occupational* and Environmental Health. Vol.82 (3), p 405.
- Rehman, M., Irum, R., Tahir, N., Ijaz, Z., Noor, U. & Salma, U.(2012). Impact of job stress on employee job satisfaction: A study on private colleges of Pakistan. *Journal of Business Studies Quarterly*. Vol. 3(3) pp 50-56.
- Richardson C., Deli (1989) The relationship of occupational stress and certain other variables of Job satisfaction of lincesed professional counsellors in Virginia. *Diss. Abst.* Vol. 50(2), P360A.
- Thakur S., (1993). Job satisfaction and job stress of secondary school physical education teachers working in different management schools in Madhya Pradesh Ph.D. Thesis, Jivaji University, Gwalior.

* Kamaljeet Kaur: Research Scholar, Dept. of Education, University of Jammu. Jammu. (Jammu & Kashmir)

** Dr. Mubarak Singh: Professor & Head, Dept. of Education, University of Jammu. Jammu. e-mail : bandralmubarak@yahoo.in

EDU	SEARCH
ISSN:	0976 - 1160
Vol 4. No	. 1. April-2013

Multimedia and ICT Skills of Contemporary Teachers

Pinkal R. Chaudhary * & Dr. Anjali Khirwadkar **

Abstract

This is an era of technology and Innovation. Lots of Practices are going on in the form of Innovation in schools and different educational organizations. Information and Communication has opened a new door to stay connected outside classroom. With the help of ICT, virtual classroom, Video Conference, E-learning, Internet etc. became possible. This has extended learning beyond imagination. Teachers can use ICT to deliver their lessons more effectively by using different media like Audio, Video, Animation, Picture etc. Students at adolescent age are influenced by network television, computer games, and Internet. Now it became necessary that teachers should also be equipped with ICT skills.

Introduction:

Education is a socially oriented activity and it develops all kind of skills among person.In order to meet the growing demand for higher education, Information and Communication Technology (ICT) be explored in the form of technology enhanced programmes. With the world moving rapidly into digital media and information, the role of ICT has become important and this importance will continue to grow in the knowledge and technology based society. Many Governing bodies like National Knowledge Commission (2009), National Curriculum Framework (2005), UNESCO (2002) has highlighted Importance of ICT in Education and given emphasis on the mechanism for feedback and subsequent interaction between teachers and the

student, especially for pedagogical techniques that are new or require more continuous innovation from the teacher. This indicates the shift in emphasis on ICT in teaching learning and imparting instructions in education, and organizing various learning experiences. For this, it is essential to have motivated and well trained teachers. Thus, well trained and skilled teachers will be able to give quality education to the learner by exploiting ICTs and existing constraints within education system may be overcome.

ICT in Teacher Education

With the spread of ICT, there is a growing demand for it in teacher education. The National Policy on Education 1986, as modified in 1992, stressed upon employing educational technology to

improve the quality of education. Government has taken few steps by introducing schemes like Educational Technology (ET), Computer Literacy and Studies in Schools (CLASS) and Information and Communication Technology in Schools (MHRD, 2012). Thus, teacher education needs to orient and sensitize teachers toward effective use of ICT. In a way, ICT can be creatively drawn upon for professional development of ICT Skills among pre-service and inservice teachers (NCF, 2005). Studentteachers at pre-service level as well as inservice level should not only learn about various technologies and their application software but also to integrate this technological application in teaching learning.

The National Policy on Education (1986), National Policy on Information and Communication Technology (ICT) in School Education (2011), National Curriculum Framework for Teacher Education (2006), The UNESCO ICT Competency Framework for Teachers (2011), UNESCO (2009), National Knowledge Commission (2009), Federation of Indian Chambers of Commerce and Industry (2009) has put on lots of emphasis on development of ICT enabled teaching at all level of learning from primary to higher Education.

Different recommendations suggested integrating Technology into curriculum at Pre-service level to produce Techno savvy Teacher to teach Students of 21st century and it also highlighted to adopt ICT to generate knowledge among Students. Different Government and Private sectors, NGOs, and other working Bodies have contribution significant in the development of ICT Proficiency among Inservice and Pre-service teachers. These initiatives have encouraged Teacher Education Institutes to develop a large manpower with ICT skills.

ICT Skills:

ICT skill is the ability to use computers and its applications and then transmit the stored information through communication networks (*Quadri*, 2012). According to *Swamy* (2012), teacher training should encompass ICT skills along with a full understanding and complete mastery of ICTs as pedagogical tools. It is also necessary to extend a stronger understanding of future learning needs and future environments for ICT skills.

Figure 1: ICT Skill Pyramid in context of Contemporary Learning



(Sources: March (2009)

This Generation uses technology as a means to promote Sharing and Collaboration of Learning. Teacher should have following Contemporary Technology enabled ICT Skills:

i.Pedagogical Strategies:

Pedagogical strategies have provided a working definition of skills of integrating technology into their pedagogy and to prepare pre-service teachers to make them able to teach with technology. According to *Beaudin and Hadden* (2005), it is hybrid approach of meta-teaching, technology exposure, and critical reflection can be used to enhance instruction.

ii. Online Resources:

These skills enable Teachers to engage students with the help of email, web Portal, Web 2.0 Tools, and Social Networking in more authentic learning tasks. This is achieved by creating a public forum for student expressions; building critical thinking into the culture of classroom routines; and using rich resources to augment core course content.

iii. Student Learning:

This skill is essential for teachers to develop ownership of learning in Student through progressive and developing integration of course goals with students' understanding. Teacher can develop Educational Site of Classroom and invite students to share their ideas and belief to express themselves. Learning as per students' own time and Pace, effective use of Multimedia representation of the subject content may lead to lifelong learning.

iv. Digital Citizenship:

Such Skill is important to develop critical thinking, reflection and, when required, informed action among Students rather than Teaching. Teachers can develop ICT integrated Lesson Plan for the enhancement of the effectiveness of the teaching. Online collaboration with the help of Internet may lead to Digital Citizenship.

v. Professional Learning:

This skill encompasses:

- Communication and collaboration
- Motivation and learner expectations
- Interactivity
- Knowledge creation and management
- Critical, creative and reflective thinking
- Local and global networks
- Problem solving
- Negotiation and risk-taking
- Assessment.

ICT skills that could be enhanced among teachers for technology driven education for the present study are: 1) Skill of Accessing: Take advantage of Internet and Intranet and locating useful information for the development of lesson plans.

2) Skills of Integration of Technology: Integrating application of technology/ software in the teaching learning process.
3) Skills of Technology Choice: Evaluating and selecting appropriate software for a particular subject and as per student needs.

4) Skills of Creativity enrichment: Generating printed documents like student assignments, newsletters, communication, etc. utilizing a variety of applications Educational software.

5) Skills of Information Management: Managing student data; using data management tools for efficiently managing learning. Using technology to gather, organizes, and report information about student performance like Excel and Access for database management.

6) Skills of Media Design: Developing tools to evaluate technology-based student projects including multi-media, word processing, database, spreadsheet, PowerPoint, and Internet/telecommunications.

7) Skills of Communication and Collaboration: Using the Internet to support professional development including locating professional organizations, communicating with other teachers electronically, and participating in on-line Collaboration.

8) Skills of Creative and Critical Thinking: Developing assignments and project work for students; giving them broader and deeper knowledge in a field of study; developing critical thinking and infusing creativity among students.

9) Skills of Techno-Pedagogy: Integration of technology into real time teaching. Practicability of the technology is enhanced.

10) Skills of Creating Web enhanced Learning Environment: Learning

environment for teaching with the help of technology developed. Online collaboration, Virtual learning, Blended learning is possible. Web 2.0 tools are integrated into teaching learning. For the collaboration, Professional Development, Discussion, Sharing Web 2.0 Tools can be used.

As these are 21st century skills that the teacher must possess in the technologically driven world to meet the requirement of teaching-learning. Multimedia as a Self learning can be effectively used for the enhancement of ICT skills.

Multimedia and Educational Context

Multimedia are the set of information technologies that satisfy the growing demand of end users for richer interactive experiences (Hong et al., 2003), which is a judicious mix of five basic types of media into the learning environment: text, video, sound, graphics and animation or it may mean the development of computer-based hardware and Software packages produced on a mass scale and yet allow individualized use, all of which are organized into some coherent program" (Phillips1998, Fenrich 2005 Asthana 2012). Multimedia provides a range of resources for education, including encyclopedias, instructional aids, interactive tutorials, reference books, reference works and teaching material. Gayeski (1993) defined multimedia as "Classroom of Computer driven interactive Computer system which create, store, transmit, retrieved textual information." Tannenbaun (2000) suggest that for a presentation to be truly considered as multimedia; it must enable the user to interact with the material and influence the course of presentation. According to Padhiyar (2010), multimedia can be delivered in three ways:

1. Website on Internet: In which representation of new concepts and Developed Multimedia material upload on Educational Website. Learner views the learning multimedia material and between all five components, which is

Interaction taking place on the website only. For such type of delivery mechanism Institute or learner should have Compatible Computer system with internet connection.

2. CD ROM Based: In which multimedia package is provided in the form of CD-ROM, Floppy, External Drive etc. CD is provided to the learner and they view and study material as per their time and pace. It does not require internet but require Compatible Computer with CD ROM.

3. Blended delivery Strategy: In which Multimedia can be delivered in Blended form, means modules in the form of Printed material is given to the learners along with CD of developed learning material. Interaction takes place face to face or through Website on internet.







Engida (2011) identified five areas of knowledge in Integration of ICT in teaching learning namely: content, pedagogy, Context, Learner and technology. Good teaching is not simply adding technology to the existing teaching and content domain. Rather, the introduction of technology causes the representation of new concepts and requires developing sensitivity to the dynamic, transactional relationship between all five components, which is diagrammatically presented in the following figure 2. Teachers should be trained to handle various learning situations using /exploring ICT.

Conclusion:

Multimedia can provide experiences to the teachers that help to effectively infuse

technology into their future classrooms. It would teachers to plan and implement ICT integrated learning experiences or creating learning environment for lifelong learning. Developing ICT skills among Teacher is very essential to cope up with 21st Century challenges.

REFERENCES

Asthana, A. (2012). Multimedia in Education - Introduction, The Elements of Educational Requirements, Classroom Architecture and Resources, Concerns. Retrieved on June 15, 2012, fromhttp://encyclopedia.jrank.org/articles/pages/6821/ Multimedia-in-Education.html

Engida, T. (2011). ICT-enhanced Teacher Development Model. UNESCO-IICBA.

- Federation of Indian Chambers of Commerce and Industry. (2009). *Making the Indian Higher Education Future ready.* Kolkata: Ernst & Young Pvt. Ltd.
- Fenrich, P. (2005). Creating Instructional Multimedia Solutions: Practical Guidelines for the Real World. California: Informing Science Press.
- Gayeski, D. M. (1993).*Multimedia for learning: Development, application, evaluation*. Englewood, N.J.: Educational Technology Publications.
- Hong, M., Wu, M., & Hsieh, C. (2003). The application of multimedia in e-learning: Taiwan's experience. In Takashi Tajima (Ed.).*Multimedia and e-Learning: A New Direction for Productivity Promotion and Enhancement.* (pp. 42-51). China: Asian Productivity Organization.
- March, T. (2009). *Digital Teaching Skill*. Retrieved from tommarch.com/strategies/ skills-checklist/
- Ministry of Human Resource Development.(2011). National Policy on Information and Communication Technology (ICT) In School Education. New Delhi: Govt. of India.
- Ministry of Human Resource Development.(1986). National Policy on Education. New Delhi: Govt. of India.
- National Curriculum Framework for Teacher Education. (2009). National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher. Delhi: NCTE.
- National Curriculum Framework.(2005). *National Curriculum Framework 2005*. New Delhi: National Council of Educational Research and Training.
- National Knowledge Commission. (2009). National Knowledge Commission Report to the Nation 2006 2009. New Delhi: New Concept Information Systems Pvt. Ltd.
- Padhiyar, A. (2010). *Multimedia Introduction and Types*. Retrieved from http://bcahub.com/ty-bca/multimedia/multimedia-introduction-and-types/.
- Phillips, R. (1998). Models of Learning appropriate to education applications of information technology. In Black, B. and Stanley, N. (Eds.), *Teaching and learning in changing Times*. (pp. 264-268).

* Pinkal R. Chaudhary : Research Scholar, CASE, Dept. of Education, The M S University of Baroda, Vadodhara, (Gujarat). E-mail : raj_pinks@yahoo.com

** Dr. Anjali Khirwadkar : Asstt. Prof., CASE, Dept. of Education, The M S University of Baroda, Vadodhara, (Gujarat).

EDUSEARCH ISSN: 0976 - 1160 Vol 4. No. 1. April -2013

Hindi Section

कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पनाओं की प्राप्ति का अध्ययन

गणेश प्रसाद साव * एवं नीरज जोशी **

सारांश

भौतिक विज्ञान विषय समाज के लिए अत्यंत उपयोगी है। परन्तु उसके संकल्पनाओं की उचित जानकारी न होने पर इसके ज्ञान का ग्रहण करना एक बोझ के समान होता है। फलतः विद्यार्थीगण इसे एक जटिल एवं आलस भरा विषय समझ कर इससे दूर भागते हैं और समाज के उत्थान में अपना योगदान नहीं दे पाते हैं। प्रस्तुत शोध अध्ययन में कक्षा नवीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर यह अध्ययन किया गया है। इसके लिए सरल यादृच्दिक विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर यह अध्ययन किया गया है। इसके लिए सरल यादृच्दिक विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर यह अध्ययन किया गया है। इसके लिए सरल यादृच्दिक विद्यार्थियों की भौतिक विज्ञान विषय के संकल्पना प्राप्ति पर यह अध्ययन किया गया है। इसके लिए सरल यादृच्दिक विद्यार्थि से बिलासपुर जिले के बिल्हा विकासखण्ड के कक्षा नवीं के 174 विद्यार्थियों का चयन करके उन पर स्व निर्मित भौतिक विज्ञान संकल्पना परीक्षण को प्रशासित किया गया। टी परीक्षण एवं एकमार्गीय एनोवा सांख्यकीय का प्रयोग कर परिणाम स्वरूप पाया गया कि विद्यार्थियों के भौतिक –विज्ञान विषय की संकल्पना प्राप्ति पर लिंग, पिता की शैक्षिक योग्यता, माता की शैक्षिक योग्यता एवं जाति का प्रभाव नहीं है।

प्रस्तावना

आधुनिक युग में शिक्षा के महत्व से सभी परिचित हैं एवं शिक्षा के माध्यम से ही जीवन को सुगम बनाने में सक्षम हो सकते हैं। प्रकृति में भौतिक इकाइयों, उनके व्यवहार एवं नियमों का ज्ञान प्रत्येक विद्यार्थी के लिए आवश्यक है। इस हेतु पाठ्यक्रम में भौतिक शास्त्र जैसे तकनीकी विषयों को सम्मिलित किया गया है। परन्तु जिस प्रकार श्वास के बिना मानव शरीर मृत है ठीक उसी प्रकार संकल्पना के बिना भौतिक विषय का अध्ययन मृत है। भौतिक विज्ञान विषय के संकल्पना से सम्बंधित कुछ महत्वपूर्ण पूर्व शोध निम्नलिखित हैं।

गड़करी (1982), सिंघाल (1983) एवं देशमुख और देशमुख (2009) ने विज्ञान विषय की संकल्पना पर शोध किये और परिणाम स्वरूप पाये की विद्यार्थियों की विज्ञान विषय में संकल्पना स्पष्ट नहीं है, वे अनेक गलत संकल्पनाओं को विकसित कर चुके हैं। अहुजा (2006), शैल्जा (2009) एवं मीना (2009) ने अपने शोध निष्कर्षों में पाया कि विज्ञान विषयों के शिक्षण के लिए संकल्पना मानचित्र विधि उपर्युक्त है। इसके माध्यम से शिक्षण होने पर विद्यार्थियों में तर्क (विश्लेषण संश्लेषण) की शक्ति विकसित होती है और जिससे उनके उपलब्धि में भी वृद्धि होती है। विज्ञान विषय के उपलब्धि पर *शर्मा* (1975) *घोष* (1985)

एवं *वझलवार, कौशल किशोर एवं पाढी* (2009) के शोध निष्कर्षों में समानता पायी गयी कि लड़कियाँ, लड़कों से बेहतर हैं। *मुखोपाध्याय* (1983) एवं *गफूर* (2010) के शोध निष्कर्षों में समानता पाई गयी। उनके शोध निष्कर्ष में लड़के एवं लड़कियों में कोई सार्थक अंतर नहीं है एवं *अंसारी* (1984) के शोध निष्कर्ष में पाया गया कि लड़के, लड़कियों से बेहतर हैं अतः विज्ञान विषय के उपलब्धि पर लिंग के प्रभाव को लेकर उपर्युक्त शोधकर्ताओं में मतभेद पाया गया।

बंधोपाध्याय (1984) ने अपने शोध में पाया कि वैज्ञानिक अभिवृति पर विद्यार्थियों के पिता की शिक्षा अनुकूल प्रभाव डालती है।

नागराजु (2006) एवं गुप्ता, संगी और संध्या (2008) के शोध निष्कर्षों में क्रमशः समानता पायी गयी। पिछड़ी एवं अनुसूचित जाति के विद्यार्थियों को अच्छे वातावरण एवं सुविधा न मिलने के कारण उनकी शैक्षिक उपलब्धियाँ निम्न होती हैं।

इस दिशा में हुए उपरोक्त अध्ययनों एवं शोध कार्यों के अतिरिक्त अन्य शोध कार्यों में भी भौतिक–विज्ञान विषय में संकल्पना प्राप्ति पर अध्ययन का अभाव था। फलतः शोधार्थी कक्षा नवमीं के विद्यार्थियों की भौतिक–विज्ञान विषय में संकल्पनाओं की प्राप्ति का अध्ययन करने पर करने का निश्चय किया।

अध्ययन उद्देश्य :–

- कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर लिंग के प्रभाव का अध्ययन करना।
- कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर उनके पिता की शिक्षा के प्रभाव का अध्ययन करना।
- कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर उनके माता की शिक्षा के प्रभाव का अध्ययन करना।
- 4. कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर उनके जाति के प्रभाव का अध्ययन करना।

अध्ययन की परिकल्पनाः—

- Ho1 कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर लिंग का सार्थक प्रभाव नहीं है।
- Ho2 कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर पिता की शिक्षा का सार्थक प्रभाव नहीं है।
- Ho3 कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर माता की शिक्षा का सार्थक प्रभाव नहीं है।
- Ho4 कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर जाति का सार्थक प्रभाव नहीं है।

अध्ययन की प्रविधि

प्रस्तुत शोध कार्य में सर्वेक्षण विधि का प्रयोग करके प्रदत्तों का संकलन किया गया। शोध कार्य की जनसंख्या छत्तीसगढ़ राज्य के बिलासपुर जिले के बिल्हा विकासखंड में स्थित शासकीय माध्यमिक एवं उच्च माध्यमिक विद्यालयों में अध्ययनरत कक्षा नवमीं के विद्यार्थीगण हैं इसमें से 174 विद्यार्थियों को न्यादर्श के रूप में सरल यादृच्छिक न्यादर्शन विधि द्वारा चयनित किया गया है।

मापन के उपकरण

प्रस्तुत शोध में आंकड़ों के संग्रहण के लिए शोधकर्ता द्वारा निर्मत भौतिक विज्ञान संकल्पना परीक्षण का प्रयोग किया गया। इस उपकरण में छत्तीसगढ राज्य शैक्षिक एवं अनुसंधान प्रशिक्षण परिषद, रायपुर द्वारा मान्यता प्राप्त विज्ञान पुस्तक में भौतिक विज्ञान से सम्बंधित अध्याय ब्रम्हाण्ड, मापन, गति, गति, बल, कार्य एवं ऊर्जा, तरंग, ताप एवं ध्वनि में दिये गये मूलभूत संकल्पनाओं को आधार करके 60 प्रश्नों को लिया गया। ये सभी प्रश्न बोध एवं अनुप्रयोग स्तर के थे।

संख्यिकीय विश्लेषण

कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर लिंग के प्रभाव की अध्ययन करने के लिए सांख्यिकीय विश्लेषण में, मध्यमान, मानक, विचलन, दो मध्यमानों के अंतर की मानक त्रुटि एवं टी अनुपात को तालिका संख्या 1 में दर्शाया गया है।

तालिका क्र. 1

भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर लिंग के प्रभाव की अध्ययन

लिंग	N	Mean	SD	SEd	t-	Sig
ডার	97	16.81	2.90	0.048	0.56	NS
ডারা	81	16.54	3.49			

तालिका – 1 से स्पष्ट है कि कक्षा नवमीं के छात्र एवं छात्राओं की भौतिक विज्ञान विषय में संकल्पना प्राप्ति के मध्यमानों के बीच टी–अनुपात का परिगणित मान (0.56) है जो कि 0.05 सार्थकता स्तर पर 172 स्वतंत्रता स्तर के लिए सांख्यिकी रूप में सार्थक नहीं है। अतः शून्य परिकल्पना Ho1 को स्वीकार की जाती है और निष्कर्षतः यह कहा जाता है कि कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर लिंग का सार्थक प्रभाव नहीं है। कक्षा कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर पिता के शैक्षिक योग्यता के प्रभाव का अध्ययन करने के लिए एकमार्गीय एनोवा सांख्यिकीय विश्लेषण किया गया जो तालिका क्रमांक:— 02 में दर्शाया गया है।

तालिका क्र. 2

भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर पिता की शैक्षिक योग्यता के प्रभाव का अध्ययन

स्त्रोत	df	SS	Ms	F
समूह के मध्य	2	21.14	10.57	1.12
समूह के अंदर	171	1629.91	9.46	
कुल	173	1651.05	9.54	

F .05 (2, 171) = 3.06

तालिका 02 से स्पष्ट है कि एफ अनुपात का मान 1.12 है जो df (2,171) एवं सार्थकता के 0.05 स्तर पर सार्थक नहीं है अतः शून्य परिकल्पना Ho2 को स्वीकृत की जाती है और निष्कर्षतः यह कहा जाता है कि कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर उनके पिता की शैक्षणिक योग्यता का सार्थक प्रभाव नहीं है।

कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर उनके माता की शैक्षिक योग्यता के प्रभाव का अध्ययन एकमार्गीय एनोवा सांख्यिकीय विश्लेषण किया गया है जो तालिका क्रमांक 3 में दर्शाया गया है।

तालिका क्र. 3

भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर माता की शैक्षिक योग्यता के प्रभाव का अध्ययन

स्त्रोत	df	SS	Ms	F
समूह के मध्य	2	21.31	10.65	1.049
समूह के अंदर	171	1736.05	10.15	
कुल	173	1757.05	10.16	

 $F.\overline{05(2,171)} = 3.06$

तालिका 3 से स्पष्ट है की एफ अनुपात का मान 1.049 है जो .05 स्तर पर सार्थक नहीं है अतः शून्य परिकल्पना Ho3 को स्वीकृत की जाती है और निष्कर्षतः यह कहा जा सकता है कि कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय की संकल्पना प्राप्ति पर माता की शैक्षिक योग्यता का सार्थक प्रभाव नहीं है।

कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर जाति के प्रभाव का अध्ययन करने के लिए सांख्यिकीय विश्लेषण हेतु की गयी गणना का मध्यमान व मानक विचलन, दो मध्यमानों के अंतर की मानक त्रुटि एवं टी अनुपात को तालिका क्रमांक 4 में दर्शाया गया है।

तालिका क्र. 4

भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर विद्यार्थियों के जाति के प्रभाव का अध्ययन

लिंग	Ν	Mean	SD	SEd	t-	Sig
अ.पि.व.	74	16.14	3.04	0.51	1.725	NS
अनु.जाति	70	17.12	3.39	ſ		

तालिका 4 से स्पष्ट है कि कक्षा नवमीं के पिछडे जाति के विद्यार्थियों एवं अनुसूचित जाति के विद्यार्थियों की भौतिक—विषय में संकल्पना प्राप्ति के मध्यमानों के बीच टी अनुपात का परिगणित मान 1.725 है जो कि 0.05 स्तर पर 142 स्वतंत्रता पर सांख्यिकी रूप में सार्थक नहीं है अतः शून्य परिकल्पना Ho4 की स्वीकृत की जाती है और निष्कर्षत कहा जाता है कि कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना की प्राप्ति पर जाति का सार्थक प्रभाव नहीं है।

निष्कर्ष

- कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर लिंग का सार्थक प्रभाव नहीं है।
- 2 कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर पिता की शिक्षा का सार्थक प्रभाव नहीं है।
- कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर माता की शिक्षा का सार्थक प्रभाव नहीं है।
- कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पना प्राप्ति पर जाति का सार्थक प्रभाव नही है।

विवेचना

उपर्युक्त तालिकाओं से यह ज्ञात होता है कि कक्षा नवमीं के विद्यार्थियों की भौतिक विज्ञान विषय में संकल्पनाओं की प्राप्ति पर लिंग, पिता की शैक्षिक योग्यता, माता की शैक्षिक योग्यता एवं जाति का प्रभाव नहीं है इसका कारण आजकल पुरूष एवं स्त्री की प्रति एवं विभिन्न जातियों में समाज की बदलती दृष्टिकोण है। आजकल लोग अपने पुत्र एवं पुत्री के बीच मतभेद कम करके उन्हें समान शैक्षिक सुविधाएँ प्रदान कराते हैं।

संदर्भ ग्रंथ सूची

- अन्सारी, ए. एम. (1984) ग्रेटर मुम्बई के हिन्दी माध्यम के कक्षा 6 तथा 7 के विद्यार्थियों के लिए सामन्य विज्ञान विषय पर उपलब्धियों का परीक्षण मानकीकृत तथा निर्माण करना, शिक्षा में चतूर्थ सर्वेक्षण 1988–92 भाग –1।
- अहुजा, अमित (2006), विज्ञान के अधिगम में सम्प्रत्यय मानचित्र का प्रभाव पर अध्ययन इण्यिन इजुकेशनल एब्स्ट्रेक्ट, जनवरी 2008 भाग–8 संख्या–1।
- गडकरी ए. ए. (1982), कल्याण के मराठी माध्य. विद्यालय में अध्ययनरत कक्षा पांचवीं के विद्यार्थियों के लिए सामान्य विज्ञान विषय में एक निदानात्मक परीक्षण का निर्माण, शिक्षा में चतुर्थ सर्वेक्षण 1988–92 भाग–1।
- गुप्ता. के. एम., संगी एवं संध्या (2008), उच्च प्राथमिक स्तर के एस. सी. (अनुसूचित जाति) के निम्न उपलब्धि स्थितियों से सम्बंधित कारकों पर शोध, इण्डियन एजूकेशन एब्ट्रेक्ट भाग–8 संख्या, जनवरी 2008।
- गफुर, ए. के, (2010), केरल राज्य के उच्च माध्यमिक विद्यालय विद्यार्थियों के भौतिकी उपलब्धि एवं चिंतन शैली में सम्बन्ध पर अध्ययन, इण्डियन एजूकशन रिव्यू भाग– 46, संख्या–1 जनवरी 2010।
- घोष, जी, पी (1985), विद्यार्थियों के रसायन विज्ञान के उपलब्धि तथा इसका कुछ निर्धारकों के साथ सम्बंध पर अध्ययन शिक्षा में चतुर्थ सर्वेक्षण 1988–92 भाग 1।
- देशमुख, एन, डी और देशमुख, बी. एम. (2009), माध्यमिक स्कूल स्तर पर शिक्षक एवं विद्यार्थियों के जीव विज्ञान में त्रुटिपूर्ण संकल्पनाओं पर अध्ययन बैट्री पब्लिकेशन तिमाही पत्रिका भाग.4,नम्बर 1, जनवरी मार्च 2009।
- नागराजू, एम. टी. भी. (2006), आवासीय एवं गैर आवासीय विद्यालय के दसवीं कक्षा के विद्यार्थियों का गणित समस्या समाधान निश्चित चर में सम्बन्धित अध्ययन, इण्डियन एजुकेशन एब्सट्रेक्ट भाग —8 संख्या—1 जनवरी।
- बंधोपाध्याय, जे. (1984) विज्ञान विषय के प्रति नवयुवकों के अभिवृप्ति को निर्धारण करने में पर्यावरणीय कारक, एकाडमिक, उपलब्धि तथा वैज्ञानिक अभिवृप्ति की भूमिका पर अध्ययन, शिक्षा में चतुर्थ सर्वेक्षण,;1988–92द्ध भाग –1।
- मीना, खराटमल (2009), छात्रों की विज्ञान विषय के प्रति समझ के लिए मानचित्र पर शोध इण्यिन एजूकेशन रिव्यू भाग 45 संख्या. 2 जुलाई 2009।
- मुखोपाध्याय, बी. (1983), राजस्थान राज्य में प्राथमिक स्तर के अधिगम उद्देश्य के आधार पर विज्ञान पुस्तक में प्रयोग किये गये भाषा की बोधग्मयता और विज्ञान उपलब्धि में सम्बंध पर अध्ययन। शिक्षा में चतुर्थ सर्वेक्षण (1988– 92) भाग–1।
- वझलवार, सी. एस., कौशल किशोर एवं पाढी, एस. के. (2009), रसायन शास्त्र के वैज्ञानिक अभिवृति तथा उपलब्धि पर अध्ययन रिसर्च डायजेस्ट, भाग–4 संख्या 2, अप्रेल– जून 2009।
- शर्मा, बी. एस. (1975) राजस्थान के डेल्डा वर्ग में गणित एवं सामान्य विज्ञान विषय के उपलब्धि पर लड़के एवं लडकियों के मध्य तुलनात्मक अध्ययन शिक्षा में चतूर्थ सर्वेक्षण 1988–92, भाग–1।
- शैल्जा, एच. एम. (2009) छात्रों के भौतिक विज्ञान के उपलब्धि एवं अभिवृत्ति पर संकल्पना मानचित्र व्यूह के प्रभाव पर अध्ययन इण्डियन इज्केशन रिव्यू भाग 45, संख्या. 2, जुलाई 2009, भाग–1।
- सिंघाल, के. एन. (1983), भौतिक शिक्षा में अपौचारिक विधि के प्रयोग पर शोध। शिक्षा में चतुर्थ सर्वेक्षण, 1988–92 भाग–1।

 * गणेश प्रसाद साव : सहा. प्राध्यापक, डी.एम.टी.टी.आई, पहाडीगोडा, संतालडीह, पुरूलिया, पश्चिम बंगाल / ganeshprasadsaw@rediffmail.com
 ** नीरज जोशी: सहा. प्राध्यापक (संविदा), शिक्षा विभाग, क्षेत्रीय शिक्षा संस्थान, (एनसीईआरटी), भोपाल (म.प्र.) किशोर विद्यार्थियों के विद्यालयी वातावरण का ----- द्वारा, डॉ. पुष्पेन्द्र कुमार लूनियॉ

EDUSEARCH ISSN : 0976 - 1160 Vol 4. No. 1. April -2013

Hindi Section

किशोर विद्यार्थिया– के विद्यालयी वातावरण का उनके शैक्षिक उपलब्धि स्तर एवं मूल्या– पर पड़ने वाले प्रभाव का अध्ययन

डॉ. पुष्पेन्द्र कुमार लूनियॉ *

सारांश

प्रस्तुत शोध का उद्देश्य किशोर विद्यार्थियों के विद्यालयी वातावरण का उनकी शैक्षिक उपलब्धि एवं मूल्यों पर प्रभाव जानना है। शोध कार्य में राजस्थान के 6 जिलों के 15–18 आयु वर्ग के कुल 1200 विद्यार्थिया– का चयन किया गया है। शोध कार्य के लिये वर्णनात्मक सर्वेक्षण विधि म– विपर्यास (विरोधी) निदर्शन अभिकल्प को आधार बनाया गया है। प्रदत्तों का संकलन कर सांख्यिकी के रूप में मध्यमान, मानक विचलन, टी परीक्षण तथा प्रसरण विश्लेषण का प्रयोग किया गया है। विश्लेषण से ज्ञात होता है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थियों की शैक्षिक उपलब्धि को सकारात्मक रूप से प्रभावित करता है साथ ही विद्यालय वातावरण का स्तर किशोर विद्यार्थियों के धार्मिक मूल्यों एवं अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण मूल्यों को प्रभावित नहीं करता है जबकि राजनैतिक मूल्यों, भौतिक बनाम अभौतिक उत्प्रेरक मूल्यों, वर्तमान बनाम भविष्य जन्मुख मूल्यों, धन लोलुपता बनाम प्रतिष्ठित मूल्यों को सार्थकता स्तर तक प्रभावित करते हैं।

प्रस्तावना—

स्वतन्त्रता के पश्चात से भारत एक सर्वसत्ता सम्पन्न लोकतंत्रात्मक गणराज्य बना। गणतंत्र की आत्मा शिक्षा होती है और गणतंत्र में शिक्षा सबके लिये होती है। अतः हमारी जनतांत्रिक सरकार, शिक्षाशास्त्रियों, दार्शनिकों तथा समाज सुधारकों ने शिक्षा को भारतीय संस्कृति पर आधारित करने तथा नये जनतांत्रिक समाज को सफल बनाने के लिये प्रजातांत्रिक तत्त्वों पर जोर दिया और इसके लिये हमारे संविधान निर्माताओं ने भी राज्य के नीति–निर्देशक तत्त्वों में संविधान के अनुच्छेद 45 में राज्य को निर्देश दिये कि वह 14 वर्ष तक की आयु के बच्चों को निःशुल्क अनिवार्य प्राथमिक शिक्षा देने की व्यवस्था करे। शिक्षा के उन्नयन हेतु केन्द्र एवं राज्य सरकारें मिलकर अधिक सार्थक प्रयास करें, इसलिये शिक्षा विषय को 1976 में 42वें संविधान संशोधन द्वारा राज्य सूची से हटाकर समवर्ती सूची में शामिल किया गया।

भारत सरकार ने शिक्षा के उन्नयन के लिये विश्वविद्यालय

शिक्षा आयोग (1949), मुदालियर माध्यमिक शिक्षा आयोग (1952), कोठारी शिक्षा आयोग (1964) आदि की नियुक्ति की। कोठारी शिक्षा आयोग ने ही व्यावसायिक, प्राविधिक व अभियांत्रिकी शिक्षा के साथ—साथ स्त्री शिक्षा पर जोर दिया। कोठारी शिक्षा आयोग की सिफारिश पर 1968 में 'राष्ट्रीय शिक्षा नीति' तैयारी की गई जो धनाभाव और इच्छा शक्ति के अभाव के कारण मई, 1986 में 'नई शिक्षा नीति' के नाम से लागू की गई।

इसी क्रम में संसद द्वारा दिसम्बर, 2002 में 14 वर्ष तक की आयु के बच्चों हेतु निःशुल्क अनिवार्य शिक्षा के अधिकार को 'मूल अधिकार' बनाने एवं बच्चों को शिक्षा के अवसर उपलब्ध कराने के लिये माता–पिता व अभिभावकगण का मूल कर्त्तव्य बनाने हेतु 86वाँ संविधान संशोधन अधिनियम, 2002 पारित किया गया जो 1 अप्रेल, 2010 से लागू हो गया।

शिक्षा हमारे सर्वांगीण विकास का सेतु है। शिक्षा हमें

परिपूर्णता की तरफ ले जाने में मदद करती है। हमारी रूचि के क्षेत्र को वह गहराई से समझती है। इसीलिये शिक्षा के लिये शिक्षा–प्रविधि का नवाचारी बने रहना अति आवश्यक है। शिक्षा में नवदृष्टि बोध उसे प्रासंगिक व औचित्यपूर्ण बनाता है।

किसी भी राष्ट्र का भविष्य उसके किशोरों पर निर्भर करता है। किशोरावस्था व्यक्ति के विकास की विभिन्न अवस्थाओं में से अत्यन्त महत्त्वपूर्ण अवस्था है। इस अवस्था में निरीक्षण, स्वतन्त्र चिन्तन, बुद्धि का अधिकतम विकास, मानसिक द्वन्द्व अधिकतम होने के कारण उनके सोचने, विचारने, व्यवहार एवं मूल्यों में परिवर्तन आने लगता है, फलस्वरूप उनमें जीवन मूल्यों का निर्माण होने लगता है। आधुनिक युग में परिवार के पश्चात् मूल्यों के विकास में जिस संस्था का सर्वाधिक योगदान होता है, वह है– विद्यालय। इसीलिए विद्यालयी शिक्षा के विभिन्न स्तरों पर विभिन्न मूल्यों का पोषण होना चाहिए जिससे वे उच्च शैक्षिक उपलब्धि प्राप्त कर सके एवं अपने जीवन मूल्यों का निर्माण कर सके।

अध्ययन के उद्देश्य –

- किशोर विद्यार्थिया के विद्यालयी वातावरण म सामाजिक, मनोवैज्ञानिक एवं भावनात्मक संबल का तथा उनके विभिन्न प्रकार के व्यवहारगत आयामा – (सृजनात्मक उद्दीपन, संज्ञानात्मक विकास के लिये प्रोत्साहन, स्वीकृति, अनुज्ञेयता, अस्वीकृति एवं नियंत्रण) के स्तर का उनके शैक्षिक उपलब्धि स्तर पर पड़ने वाले प्रभाव का अध्ययन करना।
- किशोर विद्यार्थिया के विद्यालयी वातावरण स्तर का उनके मूल्या – (धार्मिक, राजनैतिक, भौतिक बनाम अभौतिक उत्प्रेरक, अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण, वर्तमान बनाम भविष्य उन्मुख, धनलोलुपता बनाम प्रतिष्ठित) पर पड़ने वाले प्रभाव का अध्ययन करना।

सम्प्रत्ययात्मक परिकल्पना —

 किशोर विद्यार्थिया – के विद्यालयी वातावरण का स्तर उनके शैक्षिक उपलब्धि स्तर को सकारात्मक रूप से प्रभावित करता है।

संक्रियात्मक परिकल्पनाएँ –

1.1 उच्च एवं मध्य विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया – के समूह के शैक्षिक उपलब्धि स्तर के मध्यमाना – म– सार्थक अन्तर नह° है।

- 1.2 मध्य एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया – के समूह के शैक्षिक उपलब्धि स्तर के मध्यमाना – म – सार्थक अन्तर नह° है।
- 1.3 उच्च एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया– के समूह के शैक्षिक उपलब्धि स्तर के मध्यमाना– म– सार्थक अन्तर नह° है।

अनुसंधान विधि –

शोधकर्ता ने वर्णनात्मक सर्वेक्षण विधि म– विपर्यास (विरोधी) निदर्शन अभिकल्प' को आधार बनाया है। न्यादर्श –

राजस्थान म– सोद्देश्य विधि से चयनित जयपुर, सीकर, बीकानेर, अलवर, कोटा एवं उदयपुर जिला– म– से प्रत्येक जिले से 2–2 विद्यालया– का यादृच्छिक विधि से चयन कर कक्षा ग्यारह के 15 से 18 वर्ष की आयु के कुल न्यादर्श 1200 विद्यार्थिया– का लिया गया, जिसम– 600 छात्र एवं 600 छात्राएँ है। इस प्रकार प्रत्येक जिले से 100 छात्र व 100 छात्राएँ न्यादर्श म– लिये गये है।

प्रयुक्त उपकरण –

- विद्यालय परिवेश (वातावरण) परिसूची डॉ. करूणा शंकर मिश्र
- शैक्षिक उपलब्धि स्तर –विद्यार्थिया– के कक्षा 10 के प्राप्तांक।
- ऊपान्तरित (एडाप्टेड) विभेदक मूल्य प्रश्नावली डॉ. श्रीमती रेखा रानी अग्रवाल एवं डॉ. आर. के. ओझा धार्मिक एवं राजनैतिक मूल्य अध्ययन हेतु।

सांख्यिकी –

प्रस्तुत शोध अध्ययन में, टी परीक्षण ¹41¹2] काई वर्ग ij**k**[kk¹4x²¹2] संभावना गुणांक ¹4c¹2] निर्धारण गुणाक ¹4C.D.¹2] तथा प्रसरण विश्लेषण ¹4ANOVA¹2 का प्रयोग किया गया है।

अध्ययन म– प्रयुक्त परिकल्पनाएँ एवं उनकी व्याख्या और विश्लेषण

सम्प्रत्ययात्मक परिकल्पना संख्या 1 के मापन के लिये बनायी गई तीना– संक्रियात्मक परिकल्पनाआ– का एनोवा विश्लेषण इस प्रकार है –

सारणी संख्या 1 म– प्रसरण विश्लेषण का सारांश दिया गया है। 'एफ' का प्राप्त मान 2129.61 है जो डी.एफ.¹ = 2 एवं डी.एफ.² =781 के 0.01 स्तर पर 'एफ' के अपेक्षित मान 4.63 से अधिक है। इसका तात्पर्य यह है कि इसम– तीना– समूह के मध्यमाना– म– सार्थक अन्तर है। अतः

	सार	रणी	संख्य	T 1	
आंकड़ों	का	विश	लेषण	एवं	व्याख्या

Source of Variance	df	SS	MSS	F	SD
परिस्थितिया– के मध्य	$df_1 = 2$	SS _B =57158.91	$MS_{B} = 28579.45$	2129.61**	3.66
रवयं परिस्थितिया– के मध	य df ₂ =781	SS _w =10487.09	$MS_{W} = 13.42$		

**0.01 स्तर पर सार्थक डी.एफ.² = 781

सारणी संख्या 2

उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर समूह के विद्यार्थियों की शैक्षिक उपलब्धों का

तुलनात्मक अध्ययन

समूह	उच्च शैक्षिक	मध्य शैक्षिक	निम्न शैक्षिक	उच्च–मध्य	मध्य–निम्न	उच्च–निम्न
	उपलब्धि	उपलब्धि	उपलब्धि	समूह	समूह	समूह
	अभिप्रेरणा स्तर	अभिप्रेरणा स्तर	अभिप्रेरणा स्तर	टी—मूल्य	टी—मूल्य	टी—मूल्य
N	$N_1 = 178$	$N_2 = 306$	$N_3 = 300$			
Mean	$M_1 = 76.22$	$M_2 = 61.82$	$M_3 = 52.60$	3.93**	2.24*	6.18**
SD	$SD_1 = 3.66$	$SD_2 = 3.66$	$SD_3 = 3.66$	T		

*0-05 स्तर पर सार्थक, **.01 स्तर पर सार्थक

इनकी सार्थकता जाँचने के लिये 'टी' परीक्षण का प्रयोग किया गया है। जिसका विवरण सारणी क्र. 2 में है। उपर्युक्त तीनों समूह के लिए टी का प्राप्त मान सारणी मूल्य से अधिक है अतः तीनों संक्रियात्मक परिकल्नाएँ अस्वीकृत की जाती है। इससे यह निष्कर्ष निकलता है कि विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया– के शैक्षिक उपलब्धि स्तर म– सार्थक अन्तर है सम्प्रत्ययात्मक परिकल्पना –

2. किशोर विद्यार्थिया– के विद्यालयी वातावरण का स्तर उनके धार्मिक मूल्या– को सकारात्मक रूप से प्रभावित करता है।

संक्रियात्मक परिकल्पना –

2.1 उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया– के धार्मिक मूल्या– म– कोई संबंध नह° है।

सारणी संख्या 3

विद्यालयी वातावरण स्तरा - का धार्मिक मूल्या - से संबंध की सारणी

ਬਟਕ	काई वर्ग	संभावना	निर्धारण
	मूल्य	गुणांक	गुणांक
विभिन्न विद्यालयी वातावरण स्तर	4.42	0.07*	0.49
*0.05			

*0.05 स्तर पर सार्थक

विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया– के धार्मिक मूल्य के लिये 'काई वर्ग' का प्राप्त मान 4.42 है जो किसी भी स्तर पर सार्थक नह° है अतः परिकल्पना रवीकृत की जाती है। दोना- चरा- के मध्य संबंध मात्र 0.07 है जो नगण्य है। दोना- चरा- के मध्य सहचरता 0.49 है, अतः स्पष्ट है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया- के धार्मिक मूल्या- के स्तर को मात्र 0.49 प्रतिशत तक ही प्रभावित करता है।

सम्प्रत्ययात्मक परिकल्पना –

3. किशोर विद्यार्थिया- के विद्यालयी वातावरण का स्तर उनके राजनैतिक मूल्या- को सकारात्मक रूप से प्रभावित करता है।

संक्रियात्मक परिकल्पना –

3.1 उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर के किषोर विद्यार्थिया- के राजनैतिक मूल्या- म- कोई संबंध नह° है।

सारणी संख्या 4 विद्यालयी वातावरण स्तरा – का राजनैतिक मूल्या – से संबंध की सारणी

	काई वर्ग	संभावना	निर्धारण
घटक	मूल्य	गुणांक	गुणांक
विभिन्न विद्यालयी वातावरण स्तर	10.47*	0.10*	1.19

*0.05 स्तर पर सार्थक **0.01 स्तर पर सार्थक

निष्कर्ष –विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया- के राजनैतिक मूल्य के लिये 'काई वर्ग' का प्राप्त मान 10.47 है जो 0.05 स्तर पर सार्थक है, अतः परिकल्पना अस्वीकृत की जाती है, दोना- चरा- के मध्य

औसत सहसंबंध 0.109 है तथा दोना– चरा– के मध्य सहचरता 1.19 है। अतः स्पष्ट है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया– के राजनैतिक मूल्या– के स्तर को 1.19 प्रतिशत तक प्रभावित करता है।

सम्प्रत्ययात्मक परिकल्पना –

4. किशोर विद्यार्थिया – के विद्यालयी वातावरण का स्तर उनके भौतिक बनाम अभौतिक उत्प्रेरक मूल्या – को सकारात्मक रूप से प्रभावित करता है।

संक्रियात्मक परिकल्पना –

4.1 उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया – के भौतिक बनाम अभौतिक उत्प्रेरक मूल्या – म – कोई संबंध नह° है।

सारणी संख्या 5

विद्यालयी वातावरण स्तरा – का भौतिक बनाम अभौतिक उत्प्रेरक मुल्या – से संबंध की सारणी

	काई वर्ग	संभावना	निर्धारण
घटक	मूल्य	गुणांक	गुणांक
विभिन्नविद्यालयी वातावरण स्तर	13.07*	0.13*	1.69
-			

*0.05 स्तर पर सार्थक **0.01 स्तर पर सार्थक

निष्कर्ष —विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया – के भौतिक बनाम अभौतिक उत्प्रेरक मूल्य के लिये 'काई वर्ग' का प्राप्त मान 13.07 है जो 0.05 स्तर पर सार्थक है, अतः परिकल्पना अस्वीकृत की जाती है, दोना – चरा – के मध्य औसत सहसंबंध 0.13 है तथा दोना – चरा – के मध्य सहचरता 1.69 है । अतः स्पष्ट है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया – के भौतिक बनाम अभौतिक उत्प्रेरक मूल्या – के स्तर को 1.69 प्रतिशत तक प्रभावित करता है ।

सम्प्रत्ययात्मक परिकल्पना –

5. किशोर विद्यार्थिया – के विद्यालयी वातावरण का स्तर उनके अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण मूल्या – को सकारात्मक रूप से प्रभावित करता है।

संक्रियात्मक परिकल्पना –

5.1 उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया– के अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण मूल्या– म– कोई संबंध नह° है।

निष्कर्ष —विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया – के अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण मूल्य के लिये 'काई वर्ग' का प्राप्त मान 5.36 है जो किसी भी स्तर पर सार्थक नह° है, अतः परिकल्पना स्वीकृत की जाती है दोना – चरा – के मध्य

सारणी संख्या 6

विद्यालयी वातावरण स्तरा – का अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण मूल्या – से संबंध की सारणी

 काई वर्ग
 संभावना
 निर्धारण

 घटक
 मूल्य
 गुणांक
 गुणांक

 विभिन्न विद्यालयी वातावरण स्तर
 5.36
 0.089*
 0.79

*0.05 स्तर पर सार्थक **0.01 स्तर पर सार्थक

औसत सह संबंध 0.089 है जो नगण्य है तथा दोना– चरा– के मध्य सहचरता 0.79 है। अतः स्पष्ट है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया– के अविलम्ब बनाम विलम्ब आवश्यकता का तुष्टिकरण मूल्या– के स्तर को 0.79 प्रतिशत तक ही प्रभावित करता है, जो नगण्य है। सम्प्रत्ययात्मक परिकल्पना –

6. किशोर विद्यार्थिया – के विद्यालयी वातावरण का स्तर उनके वर्तमान बनाम भविष्य उन्मुख मूल्या – को सकारात्मक रूप से प्रभावित करता है।

संक्रियात्मक परिकल्पना –

6.1 उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया– के वर्तमान बनाम भविष्य उन्मुख मुल्या– म– कोई संबंध नह° है।

सारणी संख्या ७

विद्यालयी वातावरण स्तरा – का वर्तमान बनाम भविष्य उन्मुख मुल्या– से संबंध की सारणी

 काई वर्ग संभावना
 निर्धारण

 घटक
 मूल्य
 गुणांक

 विभिन्न विद्यालयी वातावरण स्तर
 9.53*
 0.11**
 1.21

*0.05 स्तर पर सार्थक **0.01 स्तर पर सार्थक

निष्कर्ष –विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया– के वर्तमान बनाम भविष्य उन्मुख मूल्य के लिये 'काई वर्ग' का प्राप्त मान 9.53 है जो 0.05 स्तर पर सार्थक है, अतः परिकल्पना अस्वीकृत की जाती है, दोना– चरा– के मध्य औसत सहसंबंध 0.11 है तथा दोना– चरा– के मध्य सहचरता 1.21 है। अतः स्पष्ट है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया– के वर्तमान बनाम भविष्य उन्मुख मूल्या– के स्तर को 1.21 प्रतिशत तक प्रभावित करता है।

सम्प्रत्ययात्मक परिकल्पना –

7. किशोर विद्यार्थिया – के विद्यालयी वातावरण का स्तर उनके धन लोलुपता बनाम प्रतिष्ठित मूल्या – को सकारात्मक रूप से प्रभावित करता है।

किशोर विद्यार्थियों के विद्यालयी वातावरण का ----- द्वारा, डॉ. पुष्पेन्द्र कुमार लूनियाँ

संक्रियात्मक परिकल्पना –

7.1 उच्च, मध्य एवं निम्न विद्यालयी वातावरण स्तर के किशोर विद्यार्थिया– के धन लोलुपता बनाम प्रतिष्ठित मूल्या– म– कोई संबंध नह° है।

सारणी संख्या 8 विद्यालयी वातावरण स्तरा – का धन लोलुपता बनाम प्रतिष्ठित मल्या – से संबंध की सारणी

	काई वर्ग	संभावना	निर्धारण			
ਬਟक	मूल्य	गुणांक	गुणांक			
विभिन्न विद्यालयी वातावरण स्तर	35.51**	19**	3.61			
*0.05 स्तर पर सार्थक **0.01 स्तर पर सार्थक						

निष्कर्ष – विभिन्न विद्यालयी वातावरण स्तर वाले किशोर विद्यार्थिया – के धन लोलुपता बनाम प्रतिष्ठित मूल्य के लिये 'काई वर्ग' का प्राप्त मान 31.51 है जो 0.01 स्तर पर सार्थक है, अतः परिकल्पना अस्वीकृत की जाती है, दोना – चरा – के मध्य औसत सहसंबंध 0.19 है तथा दोना – चरा – के मध्य सहचरता 3.61 है | अतः स्पष्ट है कि विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया – के धन लोलुपता बनाम प्रतिष्ठित मूल्या – के स्तर को 3.61 प्रतिशत तक प्रभावित करता है |

परिणाम एवं उनकी व्याख्या

प्रस्तुत अध्ययन द्वारा निम्न परिणाम प्राप्त हुए–

 शिक्षक–शिक्षार्थी संबंध, विद्यार्थिया– के विचारा– को प्रकट करने के अवसर, विद्यालय म– श्यामपट्ट, कक्षा–कक्ष व्यवस्था, पानी, शौचालय की उपयुक्त व्यवस्था, विद्यार्थिया– को, अभिप्रेरणा देना, विद्यार्थिया– की समस्या के प्रति शिक्षक का हमेशा तत्पर रहना, वाद–विवाद, नाटक, प्रदर्शनी म– भाग लेने के लिये प्रेरित करना आदि कारक विद्यार्थिया– की शैक्षिक उपलब्धि को प्रभावित करते हैं। स्पष्टतः विद्यालय वातावरण के सामाजिक, मनोवैज्ञानिक, भावात्मक सम्बल एवं विभिन्न घटक शैक्षिक उपलब्धि को सकारात्मक रूप से प्रभावित करते हैं।

- विद्यालयी वातावरण का स्तर किशोर विद्यार्थिया के धार्मिक मूल्या – को प्रभावित नह° करता है क्या – कि धार्मिक मूल्या – पर परिवार, समाज व हमारी संस्कृति का ज्यादा प्रभाव पड़ता है।
- विद्यालय वातावरण का स्तर किशोर विद्यार्थिया के राजनैतिक मूल्या – को प्रभावित करता है विद्यालया – म– विभिन्न गतिविधिया – का आयोजन होता है जिससे विद्यार्थिया – म राजनैतिक मूल्य विकसित होते हैं, इस कारण से विद्यालय वातावरण किशोरा – के राजनैतिक मूल्या – को प्रभावित करता है।
- 4. विद्यालयी वातावरण पारितोषिक के स्वरूप यथा मुद्रा, पुस्तक, दैनिक जीवन की उपयोगी वस्तुआ–, पदक, प्रमाण–पत्र, सम्मान की भूमिका, निःशुल्क यात्रा आदि को प्रभावित करता है।
- 5. विभिन्न विद्यालयी वातावरण स्तर के विद्यार्थिया म– भविष्य के बारे म– सोचने एवं योजना बनाने, वर्तमान का अधिकतम उपयोग करने म–] नये संबंध बनाने एवं व्यवसाय चयन में सार्थक अन्तर रखते हैं। ये मूल्य स्वयं अभिभावकों एवं विद्यार्थियों के आकांक्षा स्तर व उनके गृह वातावरण से प्रभावित होते हैं।

संदर्भ ग्रंथ सूची

अल्टेयर, ए.एस. (1948): एज्यूकेशन इन एन्सिएण्ट इण्डिया, नन्द किशोर ब्रदर्स, वाराणसी

बेस्ट, जे.डब्ल्यू. (1963): रिसर्च इन एज्यूकेशन, प्रेटिंस हॉल, न्यू देहली

- भटनागर, आर.पी. (1963) :ए डिफरेन्शियल स्टडी ऑफ वेल्यूज ऑफ मेल ग्रेजुएट्स—जर्नल ऑफ एज्यूकेशनल साइकोलोजी 21(2)
- फिशर, आर.ए. (1950): स्टेटीस्टिकल मैथड्स फॉर रिसर्च वर्क्स, हाफनेर पब्लिशिंग कं न्यूयार्क इंटरनेशनल जर्नल ऑफ एकेडमिक रिसर्चेज, वॉ.2 नं.1, जनवरी, 2010

एम.बी. बुच सर्वेज ऑफ रिसर्च इन एज्यूकेशन, एन.सी.ई.आर.टी., नई दिल्ली

श्रीवास्तव, राम एवं आनन्द बानी (2009) — मनोविज्ञान, शिक्षा तथा अन्य सामाजिक विज्ञाना– म– अनुसंधान विधियां मोतीलाल बनारसी दास, दिल्ली, पृ.सं. 161

* डॉ. पुष्पेन्द्र कुमार लूनिया : प्रवक्ता, एस.एस.जी. पारीक स्नातकोत्तर शिक्षा महाविद्यालय जयपुर, राजस्थान। e-mail : pklooniya@gmail.com **Hindi Section**

EDUSEARCH
ISSN: 0976 - 1160
Vol 4. No. 1. April -2013

माध्यमिक स्तर पर विद्यार्थियों में आलोचनात्मक चिन्तन के विकास में संकल्पना प्राप्ति प्रतिमान की प्रभाविता का अध्ययन

डॉ. अर्चना दुबे * एवं दिव्या विजयवर्गीय * *

सारांश

परम्परागत शिक्षण में विद्यार्थियों के केवल ज्ञानात्मक पक्ष के विकास पर बल दिया जाता है, जबकि विद्यार्थियों के सर्वांगीण विकास हेतु अवबोध एवं चिन्तन स्तर का विकास भी होना चाहिए। इस हेतु शिक्षण प्रतिमानों की अहम् भूमिका होती है। संकल्पना प्राप्ति प्रतिमान एक ऐसा प्रतिमान है जिससे विद्यार्थियों में संश्लेषण, विश्लेषण, आगमन तर्क का विकास होता है जिससे उनकी नई संकल्पनाएँ बनती हैं। परिणामस्वरूप विद्यार्थियों में आलोचनात्मक चिन्तन का विकास होता है। प्रस्तुत अध्ययन के माध्यम से संकल्पना प्राप्ति प्रतिमान द्वारा आलोचनात्मक चिन्तन के विकास का अध्ययन करने का प्रयास किया गया है।

प्रस्तावना

शिक्षा किसी न किसी रूप में आदिकाल से ही दी जा रही है। अरस्तू के अनुसार 'स्वस्थ शरीर में स्वस्थ मस्तिष्क का निर्माण ही शिक्षा है।' शिक्षा एक ऐसा माध्यम है जिसकी सहायता से विद्यार्थियों में ज्ञानात्मक, भावात्मक एवं क्रियात्मक पक्ष का विकास सम्भव है। वर्तमान समय में शिक्षण में व्याख्यान विधि का अधिक उपयोग किया जा रहा है. जिसमें अध्यापक अधिक सक्रिय रहते हैं एवं विद्यार्थी निष्क्रिय रूप से सुनते रहते हैं। वे न तो किसी संकल्पना को समझ पाते हैं न ही स्वतन्त्र रूप से चिन्तन कर पाते हैं तथा विषयवस्तू को रटने के लिए बाध्य हो जाते हैं। अतः वर्तमान में प्रचलित शिक्षण पद्धति में विद्यार्थियों का सर्वांगीण विकास नहीं हो पा रहा है। आज आगामी चुनौतियों को देखते हुए विद्यार्थियों में रूचि, जिज्ञासा, चिन्तन, वैज्ञानिक दृष्टिकोण, विश्लेषण, स्वअध्ययन की आदतों का विकास करने की आवश्यकता है जिससे विद्यार्थियों का सर्वांगीण विकास हो सके। अतः वर्तमान में परम्परागत शिक्षण पद्धति में शिक्षण प्रतिमानों का उपयोग करने की आवश्यकता है। विभिन्न शिक्षण प्रतिमानों में से संकल्पना प्राप्ति प्रतिमान एक ऐसा प्रतिमान है जिससे विद्यार्थियों में संश्लेषण, विश्लेषण, सहनशीलता, संकल्पना की प्रकृति, आगमन तर्क का विकास, संवेदनशीलता, विशिष्ट संकल्पना का अभिज्ञान आदि शिक्षण प्रभाव उत्पन्न होते हैं। जब छात्र संकल्पना का अभिज्ञान करते हैं तब संश्लेषण, विश्लेषण, एवं मूल्यांकन करते हैं जिससे वे विभिन्न दिशाओं में स्वतन्त्र चिन्तन करते हैं। विद्यार्थी सूचनाओं के संश्लेषण, विश्लेषण द्वारा समस्या का समाधान करते हैं, परिणामस्वरुप उनकी पुरानी संकल्पनाएँ टूटती हैं एवं नई संकल्पनाएँ बनती हैं। इस प्रकार विद्यार्थियों में आलोचनात्मक चिन्तन का विकास होता है।

आलोचनात्मक चिन्तन का अर्थ :

आलोचनात्मक चिन्तन अवलोकन, अनुभव, तार्किक विचार द्वारा शुद्ध रुप से तर्कों को एकत्रित करने, संश्लेषण, विश्लेषण एवं मूल्यांकन करने की प्रक्रिया है। यह स्वाभाविक मूल्यों के बजाय तर्क व विचार करने के आधार पर निर्णय लेने व मूल्यांकन करने की योग्यता है। यह किसी व्यक्ति की अपनी स्वयं की सोच को परिष्कृत करने की प्रक्रिया है।

आलोचनात्मक चिन्तन की परिभाषाः

Scriven & Paul (1992) के अनुसार—आलोचनात्मक चिन्तन विश्लेषणात्मक तर्क, संश्लेषण, समस्या समाधान या उच्च मानसिक प्रक्रिया है।

Beyer (1985) के अनुसार—आलोचनात्मक चिन्तन अपना अधिकार माँगने की जानकारी या उचित सूचना,शुद्धता, प्रमाणिकता को निर्धारित करने की प्रक्रिया है।

Hudgins & Edelman (1986) के अनुसार–व्यक्ति की वह प्रक्रिया जिसमें वह स्वयं के निष्कर्षों के समर्थन में साक्ष्य प्रस्तुत करता है तथा अन्य लोगों के निष्कर्षों को स्वीकार करने से पूर्व उनसे साक्ष्य प्रस्तुत करने का आग्रह करता है वह आलोचनात्मक चिन्तन है।

वर्तमान जगत में विद्यार्थियों के सर्वांगीण विकास हेतु आलोचनात्मक चिन्तन का विकास होना आवश्यक है। प्रस्तुत अध्ययन द्वारा शोधार्थी ने संकल्पना प्राप्ति प्रतिमान की प्रभाविता का अध्ययन आलोचनात्मक चिन्तन के विकास के सन्दर्भ में करने का प्रयास किया है।

पूर्व शोध अध्ययन :

बवेजा (1989)ने जीव विज्ञान की संकल्पना को समझने में संकल्पना प्राप्ति प्रतिमान एवं सूचना प्रक्रम प्रतिमान की प्रभाविता तथा छात्रों द्वारा उपयोग में लाई गई चिन्तन व्यह रचना का विश्लेषण किया एवं अवधान पर संकल्पना प्राप्ति प्रतिमान के प्रभाव का अध्ययन किया। न्यादर्श के रुप में कक्षा नवीं के 22 विद्यार्थी अंग्रेजी माध्यम विद्यालय से लिए गए। पूर्व परीक्षण पश्च परीक्षण तथा अवधान परीक्षण का उपयोग किया एवं पाया कि जिन विद्यार्थियों को प्रतिमान द्वारा पढाया गया उन्हें संकल्पना समझ में आई एवं संकल्पना प्राप्ति प्रतिमान से उनके अवधान में सहायता प्राप्त हुई। जैमिनी (1991) ने अग्रवर्ती संगठक प्रतिमान, संकल्पना प्राप्ति प्रतिमान तथा परम्परागत विधि द्वारा शिक्षण की प्रभाविता, संकल्पना को धारण करने की क्षमता, संकल्पीकरण, प्रभावी शिक्षण तथा संकल्पना अधिगम में छात्रों की क्रिया, तथा संकल्पना धारण करने में बहउद्देश्यीय चिन्तन के संबन्ध का अध्ययन किया। न्यादर्श के रुप में कक्षा नवमीं के तीन विभागों को लिया गया एवं पाया कि अग्रवर्ती संगठक प्रतिमान, एवं संकल्पना प्राप्ति प्रतिमान परम्परागत

विधि द्वारा शिक्षण से अधिक प्रभावी थे। संकल्पना के अधिगम में अग्रवर्ती संगठक तथा संकल्पना प्राप्ति प्रतिमान समान रूप से प्रभावी थे तथा संकल्पना अधिगम में बहुउद्देश्यीय चिन्तन अधिक प्रभावी था।

साल्वी (1991) ने अंग्रेजी में विद्यार्थियों की संकल्पना को प्राप्त करने अंग्रेजी में विद्यार्थियों की उपलब्धि आगमनात्मक तर्क योग्यता के सन्दर्भ में संकल्पना प्राप्ति प्रतिमान की प्रभाविता एवं परम्परागत विधि से संकल्पना को समझने का तूलनात्मक अध्ययन किया। न्यादर्श के रुप में कक्षा नवमीं के दो विद्यालयों से 207 विद्यार्थियों का चयन किया गया एवं पाया कि अंग्रेजी की संकल्पना को समझने, अंग्रेजी में विद्यार्थियों की उपलब्धि, आगमनात्मक चिन्तन में संकल्पना प्राप्ति प्रतिमान परम्परागत विधि से सार्थक रुप से उच्च था। गृप्ता (1991) ने संकल्पना प्राप्ति प्रतिमान आगमनात्मक चिन्तन प्रतिमान द्वारा विज्ञान में छात्रों की उपलब्धि, आत्मसंकल्पना, तथा अभिवृत्ति के प्रभाव का अध्ययन किया। न्यादर्श के रुप में कक्षा नवमीं के 64 विद्यार्थियों का चयन किया एवं पाया कि विज्ञान में विद्यार्थियों की सही अभिवृत्ति को बढाने में आगमनात्मक चिन्तन प्रतिमान, संकल्पना प्राप्ति प्रतिमान से अधिक प्रभावी था। छात्रों की उपलब्धि भी आगमनात्मक चिन्तन प्रतिमान द्वारा संकल्पना प्राप्ति प्रतिमान की तूलना में अधिक पाई गई। दास (1994) ने सूचना प्रक्रम प्रतिमान, संकल्पना प्राप्ति प्रतिमान तथा परम्परागत विधि का उपलब्धि के सन्दर्भ में प्रभाविता का अध्ययन किया। न्यादर्श के रुप में इन्दौर के यूनिवर्सिटी इनोवेटिव विद्यालय के कक्षा सातवीं एवं आठवीं के 20-20 विद्यार्थियों को यादच्छिक रुप से चूना गया एवं पाया कि परम्परागत विधि की तुलना में सूचना प्रक्रम प्रतिमान से पढाने पर विद्यार्थियों की उपलब्धि उच्च थी। कौर एवं सिंह (2005) ने अग्रवर्ती संगठक प्रतिमान. संकल्पना प्राप्ति प्रतिमान तथा परम्परागत विधि द्वारा भौतिक विज्ञान पढाने में उपलब्धि तथा बुद्धि के सन्दर्भ में तुलनात्मक अध्ययन किया। न्यादर्श के रुप में सरकारी विद्यालय के कक्षा नवीं के 240 विद्यार्थियों का चयन किया एवं पाया कि संकल्पना प्राप्ति प्रतिमान तथा अग्रवर्ती संगठक प्रतिमान लगभग समान रूप से प्रभावी थे तथा

दोनों ही परम्परागत विधि की तुलना में श्रेष्ठ थे। इसके अतिरिक्त आलोचनात्मक चिन्तन से सम्बन्धित शोध कार्य निम्न थे– *बंसल* (1979) ने–परम्परागत व आधुनिक गणित के विद्यार्थियों की योग्यताओं का तुलनात्मक अध्ययन किया एवं पाया कि परम्परागत गणित के विद्यार्थियों के बजाय आधुनिक गणित के विद्यार्थियों में आलोचनात्मक चिन्तन की प्रवृत्ति अधिक पाई गई। एलेक्जेंडर (1990) ने–विज्ञान उपलब्धि पर सामाजिक–आर्थिक स्तर, विज्ञान अभिवृत्ति, तथा आलोचनात्मक चिन्तन के प्रभाव का अध्ययन किया एवं पाया कि तीनों चर विज्ञान की उपलब्धि में सहायता करते है। श्लेश्वर (1990) ने साक्षर वार्तालाप समूह से विद्यार्थियों के आलोचनात्मक चिन्तन की योग्यता तथा पढ़ने में अभिवृत्ति के प्रभाव का अध्ययन किया एवं पाया कि साक्षर वार्तालाप समूह में भाग लेने से विद्यार्थियों के आलोचनात्मक चिन्तन प्रकट करने, एवं पढ़ने में अभिवृत्ति सार्थक रुप से प्रभावी नहीं थी।

शोध अध्ययन का उद्देश्य :

 कक्षा नवमीं के विद्यार्थियों को विज्ञान विषय संकल्पना प्राप्ति प्रतिमान द्वारा पढ़ाने पर आलोचनात्मक चिन्तन के पूर्व एवं पश्च परीक्षण के माध्य फलांको की तुलना करना।

शोध अध्ययन की परिकल्पना :

 कक्षा नवमीं के विद्यार्थियों को विज्ञान विषय संकल्पना प्राप्ति प्रतिमान द्वारा पढ़ाने पर आलोचनात्मक चिन्तन के पूर्व एवं पश्च परीक्षण के माध्य फलांकों में सार्थक अन्तर नहीं होगा।

शोध अध्ययन की प्रविधि :

शोधार्थी द्वारा प्राकल्प 'पूर्व एवं पश्च परीक्षण एकल समूह' का प्रयोग किया गया। न्यादर्श के रुप में गैर सरकारी विद्यालय एन. एम. मेमोरियल के कक्षा नवीं के 34 विद्यार्थियों का चयन उद्देश्यपरक विधि से किया गया। न्यादर्श के रुप में चयनित विद्यार्थियों में छात्र एवं छात्राएँ जिनकी उम्र 14—16 वर्ष, मध्यम सामाजिक—आर्थिक स्तर के, एम. पी. बोर्ड के हिन्दी माध्यम के नियमित विद्यार्थी को लिया गया। शोधार्थी द्वारा आलोचनात्मक चिन्तन का पूर्व परीक्षण लिया गया तत्पश्चात संकल्पना प्राप्ति प्रतिमान द्वारा 30 दिन तक विद्यार्थियों को उपचारित किया गया। उपचार के उपरान्त आलोचनात्मक चिन्तन का पश्च परीक्षण लिया गया।

शोध अध्ययन का प्रायोगिक प्राकल्प :

शोघ अध्ययन का प्रायोगिक प्राकल्प 'पूर्व एवं पश्च परीक्षण एकल समूह' था।

शोध विधि (तकनीक) :

प्रस्तुत शोध के अध्ययन हेतु अनुसंधान की असम्भाव्य न्यादर्शन तकनीक (Non Probability Sampling Technique) की सोद्देश्य न्यादर्शन तकनीक (Purposive Sampling Technique) का प्रयोग किया गया।

शोध उपकरण ः

शोध के अध्ययन हेतु आलोचनात्मक चिन्तन का मापन करने हेतु स्वनिर्मित आलोचनात्मक चिन्तन मापनी का प्रयोग किया गया। यह उपकरण कक्षा नवमीं के विद्यार्थियों के लिए बनाया गया था। इस उपकरण में 20 प्रश्न थे। कुछ प्रश्नों को हल करने के लिए विद्यार्थियों को विकल्प दिए गए थे जबकि कुछ प्रश्नों को हल करने के लिए विद्यार्थियों को विकल्प नहीं दिए गए थे। प्रश्नों को हल करने के लिए विद्यार्थियों को 45 मिनिट का समय दिया गया। प्रत्येक सही उत्तर के लिए 5 अंक निर्धारित किए गए।

प्रदत्तों का संकलन :

शोध अध्ययन को पूर्ण करने हेतू सर्वप्रथम एन. एम. मेमोरियल के कक्षा नवमीं के विद्यार्थियों को एक माह तक पढ़ाने की अनुमति ली गई। शोध कार्य करने हेत् कक्षा नवीं के 34 विद्यार्थियों का चयन उद्देश्यपरक विधि ा से किया गया। विद्यार्थियों से तादात्मय स्थापित करने के पश्चात उन्हें शोध के उद्देश्य से परिचित कराया गया। इसके पश्चात् विद्यार्थियों के आलोचनात्मक चिन्तन का मापन करने हेतु पूर्व परीक्षण लिया गया। पूर्व परीक्षण लेने के पश्चात् विद्यार्थियों को संकल्पना प्राप्ति प्रतिमान एवं उसके विभिन्न सोपानों की विस्तृत जानकारी दी गई। शोधार्थी द्वारा विद्यार्थियों के समक्ष 30 दिन तक संकल्पना प्राप्ति प्रतिमान पर आधारित पाठ–योजना प्रस्तुत की गई। अंत में स्वनिर्मित आलोचनात्मक चिन्तन मापनी द्वारा आलोचनात्मक चिन्तन का पश्च परीक्षण लिया गया। तत्पश्चात आलोचनात्मक चिन्तन मापनी का फलांकन किया गया।

प्रदत्तों का विश्लेषण :

शोध अध्ययन का उद्देश्य था 'कक्षा नवमीं के विद्यार्थियों को विज्ञान विषय संकल्पना प्राप्ति प्रतिमान द्वारा पढ़ाने पर आलोचनात्मक चिन्तन के पूर्व एवं पश्च परीक्षण के माध्य फलांको की तुलना करना'। उपरोक्त उद्देश्य से सम्बन्धित प्राप्त प्रदत्तों का विश्लेषण सहसंबंधित टी– परीक्षण की सहायता से किया गया।

सारणी –1 आलोचनात्मक चिन्तन के माध्य (M) ,मानक विचलन (SD), एवं (t) का मान

		().	• (,		
परीक्षण	Ν	М	SD	df	t	Sig
पूर्व	34	37.56	9.07	66	13.14	p<.01
पश्च	34	56.24	9.77			

सारणी क्रमांक –1 से विदित है कि t का मान 13.14 है जो कि df = 66 पर 001 सार्थकता के स्तर पर सार्थक है। यह दर्शाता है कि संकल्पना प्राप्ति प्रतिमान से उपचारित विद्यार्थियों के आलोचनात्मक चिन्तन के पूर्व एवं पश्च परीक्षण के माध्य फलांकों में सार्थक अंतर है। 1. संकल्पना प्राप्ति प्रतिमान विद्यार्थियों के आलोचनात्मक इसके परिप्रेक्ष्य में शून्य परिकल्पना कि 'कक्षा नवमीं के

133

विद्यार्थियों को विज्ञान विषय संकल्पना प्राप्ति प्रतिमान द्वारा पढ़ाने पर आलोचनात्मक चिन्तन के पूर्व एवं पश्च परीक्षण के माध्य फलाकों में कोई सार्थक अन्तर नहीं होगा' निरस्त की जाती है। सारणी से यह भी विदित है कि विद्यार्थियों के आलोचनात्मक चिन्तन के पश्च परीक्षण के माध्य फलांक 56.24 है जो पूर्व परीक्षण के माध्य फलांक 37.56 से सार्थक रुप से उच्च है। इससे यह निष्कर्ष निकाला जा सकता है कि संकल्पना प्राप्ति प्रतिमान विद्यार्थियों में आलोचनात्मक चिन्तन के विकास में सार्थक रुप से प्रभावी रहा।

परिणाम ः

चिन्तन के विकास में सार्थक रुप से प्रभावी पाया गया।

संदर्भ ग्रंथ सूची

- Buch, M.B.(Ed.) (1997): "Fifth Survey Of Research In Education" Vol. Ist (1988-1992), N.C.E.R.T. New Delhi.
- Buch, M.B.(Ed.) (2000): "Fifth Survey Of Research In Education" Vol.IInd (1988-1992), N.C.E.R.T. New Delhi
- Das, M. (2004): "Effectiveness Of Concept Attainment model And Inquiry Training Model In Terms Of Pupil Achievement And Reaction "Unpublished M.Ed. (Ed.) Dissertation ,D.A.V.V.Indore.
- Epstein, L.R. (1947): "Critical Thinking IInd Ilulstrated By Alex Raffi Belmont" Wodsworth Publishing Company.
- Joyce, B.S. Weil, M. (1985) : "Model Of Teaching" Prentice Hall Of India New Delhi.
- Kaur, R.And Singh, P. (2005): "Comparitive Study Of Concept Attainment Model, Advance Organizer Model And Conventional Method In Teaching Of Physics In Relation To Inteligence And Achievement" Journal of Indian Association For Education Research, 17(1&2).
- Manocha, B. (1990) : "Development Of Textual Material Of Biology For Class 9th Using Bruner's Concept Attainment Model Of Teaching. Ph.D.(Ed.). Thesis, D. A. V.V. Indore.
- Sansanwal, D. N.& Singh, P. (1991): "Model Of Teaching" Baroda Society For Education Indore Research And Development.
- Sinsh, B. (1990) : "Effectiveness Of Concept Attainment Model By Positive And Negative Example In Terms Of Attitude And Achievement", Unpublished M.Ed. (Ed.) Dissertation D.A.V.V.Indore.
- Singh, S. (1994) : "Comparision Of Inductive Thinking Model With Traditional Method Of Teaching Economics To Class 12th In Terms Of Selected Cognitive Variables" Unpublished Ph.D (Ed.) Thesis, D.A.V.V.Indore.

* डॉ. अर्चना दूबे ः *प्रवक्ता, शिक्षा अध्ययन शाला, देवी अहिल्या विश्वविद्यालय इन्दौर, म. я e-mail : dubeyarchana27@yahoo.co.in*

** दिव्या विजयवर्गीय : सहा. प्राध्यापक, अरिहंत कालेज, 453, खंडवा रोड, इन्दौर म.प्र e-mail : divya.amitvij@rediffmail.com

EDUSEARCH)
ISSN: 0976 - 1160	
Vol 4. No. 1. April -2013]

Hindi Section

प्रारम्भिक स्तर के विद्यालयों में ग्रंथालयों की स्थिति का समीक्षात्मक अध्ययन

डॉ. अरूण प्रकाश पाण्डेय * एवं श्रीमती पुष्पा जोशी * *

सारांश

शिक्षा मानव विकास का मूलमन्त्र है तथा सामाजिक परिवर्तन का एक शक्तिशाली साधन है। मध्यप्रदेश शासन ने भी ग्रामीण क्षेत्रों में साक्षरता दर को बढ़ाने के उद्देश्य से एवं प्रारम्भिक विद्यालयों के लिये पुस्तकालयों की आवश्यकता को समझते हुए विद्यालयीन ग्रन्थालयों की शुरूआत की। शालेय शिक्षा में पुस्तकालयों की आवश्यकता को ध्यान में रखते हुए इस प्रकरण को शोधार्थी द्वारा अध्ययन के लिये चुना गया है। शोध निष्कर्ष में अधिकांश शिक्षकों का मानना है कि पुस्तकालय भवन न तो अन्दर से सुसज्जित है न ही व्यवस्थित है। इससे विद्यार्थियों के मन में पुस्तकालय के प्रति सकारात्मक दृष्टिकोण जागृत नहीं होता है।

प्रस्तावना –

''किसी भी राष्ट्र की प्रगति का आधार उसकी भौतिक सम्पदा ही नहीं, वरन् प्रबुद्ध जनशक्ति है, जिसका निर्माण सुव्यवस्थित व व्यापक शिक्षा प्रणाली के माध्यम से होता है।''

शिक्षा एक महत्वपूर्ण और सर्वव्यापी विषय है। यह मानव की एक विशेष उपलब्धि रही है। शिक्षा एक सामाजिक आवश्यकता है। उसने विकास के हर युग में समाज को दिशा एवं स्वरूप दिया है।

शिक्षा मानव विकास का मूलमन्त्र है तथा सामाजिक परिवर्तन का एक शक्तिशाली साधन है। भारत के सन्दर्भ में देखा जाय तो हमारा समाज दो भागों में बंटा हुआ है, एक शहरी समाज तथा दूसरा ग्रामीण समाज।

भारत जैसे विशाल देश में जहाँ कुल आबादी की 70 प्रतिशत जनता आज भी गाँवों में निवास करती है, जिसकी विशालता, सांस्कृतिक विरासत, जनसंख्या का असमान वितरण, रूढ़िवादिता, समुदाय की आवश्यकता जैसे महत्वपूर्ण तथ्यों को दृष्टिगत रखते हुए ग्रामीण समाज में शिक्षा के प्रचार—प्रसार को बढ़ावा देने के लिये शासन द्वारा समय—समय पर विभिन्न योजनाओं का क्रियान्वयन किया गया। इसी के दौरान खुली शिक्षा, प्रौढ़ शिक्षा, सतत् शिक्षा, आजीवन शिक्षा जैसी अवधारणाओं को विकसित किया गया। मध्यप्रदेश शासन द्वारा भी प्रौढ़ शिक्षा एवं सतत् शिक्षा को बढ़ावा देने के उद्देश्य से ग्रामीण क्षेत्रों में सांस्कृतिक केन्द्र के रूप में ग्रामीण पुस्तकालय एवं वाचनालय खोले गये।

अध्ययन की आवश्यकता –

किसी भी राष्ट्र के विकास की डोर उस राष्ट्र के नागरिकों के हाथों में होती है। नागरिक ही निरक्षर होंगे तो वह विकास की बात को क्या समझेंगे और जब भारत के सम्बन्ध में यह बात की जाये तो बात और भी महत्वपूर्ण हो जाती है। भारत विकसित देशों की श्रेणी में है और स्वतन्त्रता के 65 वर्षों बाद भी हम पूर्ण साक्षर नहीं हो सके, जिसका प्रमुख कारण यहाँ शिक्षा के प्रचार—प्रसार को लेकर कहीं न कहीं कमी है। अनुसंधान की आवश्यकता एवं उपयोगिता तब और बढ़ जाती है, जब समाज में एक वर्ग का सामाजिक, आर्थिक, राजनैतिक एवं शैक्षिक विकास तेजी से हो रहा है और दुसरा वर्ग पीछे रह जाय।

भारत चूंकि ग्राम प्रधान देश है और गाँवों के विकास के बिना भारत के विकास की कल्पना सार्थक नहीं होगी। अतः हमें ग्रामीण क्षेत्रों में साक्षरता को बढ़ाना होगा और वहाँ फैली सामाजिक कुरीतियों, रूढ़ियों व अंधविश्वासों को दूर करना होगा। आमतौर पर यह माना जाता है कि कोई भी शिक्षण संस्था जीवन पर्यन्त शिक्षा नहीं दे सकती, जबकि शिक्षा एक सतत् और जीवन पर्यन्त चलने वाली प्रक्रिया है। ऐसी स्थिति में ग्रंथालय ही एक मात्र सशक्त माध्यम बनते हैं जो जन—जन तक शिक्षा का प्रचार—प्रसार कर राष्ट्र के सर्वांगीण विकास में सहायक बनेंगे।

किसी भी कार्यक्रम की शरुवात एवं संचालन एक पहलू है, जबकि निर्धारित उद्देश्यों को प्राप्त करना सर्वथा दूसरा पहलू है। मध्यप्रदेश शासन ने ग्रामीण क्षेत्रों में साक्षरता दर को बढ़ाने के उद्देश्य से एवं प्रारम्भिक विद्यालयों के लिये पुस्तकालयों की आवश्यकता को समझते हुए विद्यालयीन ग्रन्थालयों की शुरूआत की। शोधार्थी द्वारा शिक्षा में पुस्तकालयों की आवश्यकता को जानते हुए इसे अध्ययन के लिये चूना है।

Right to Child to Free and Compulsory Education Act, 2009 में ग्रंथालय के बारे में स्पष्ट रूप से इंगित किया गया है कि — There shall be a library in each school providing newspaper, magazines and books on all subjects, including story-books.

अध्ययन का महत्व –

लोकतन्त्र की रक्षा वहाँ के नागरिकों के शिक्षित होने पर निर्भर करती है। शिक्षा व्यक्ति के जीवन का अनिवार्य अंग है, जिसकी आवश्यकता प्रत्येक अवस्था और क्षेत्र में पड़ती है। शिक्षा प्राप्त करना व्यक्ति का मौलिक अधिकार है, जो उसे प्राप्त होना ही चाहिए। मानवाधिकार के संवैधानिक अधिकार की घोषणा की धारा 26 में कहा गया है कि जो भी व्यक्ति शिक्षा पाने से वंचित रह गया हो उसे शिक्षा दी जानी चाहिये, भले ही उसकी आयु कितनी भी क्यों न हो। मध्यप्रदेश शासन ने भी साक्षरता समितियों के माध्यम से पढ़ना–बढ़ना व महिला पढ़ना–बढ़ना आंदोलन चलाकर ऐसे ही आयु वर्ग के लाखों लोगों को साक्षर किया है। मध्यप्रदेश शासन ने ग्रामीण क्षेत्रों में शिक्षा के प्रचार–प्रसार की आवश्यकता को देखते हुए एवं उसके महत्व को

समझते हुए ग्रामीण विद्यालयों की स्थापना की है। यद्यपि 1984 में जिला पुस्तकालय के अन्तर्गत शिक्षा विभाग द्वारा ''ग्रामीण पुस्तक केन्द्र'' का परिचय कराया गया था, जिसका संचालन शासकीय माध्यमिक विद्यालयों में पुस्तकालयों की स्थापना के साथ किया गया था, परन्तु ये पुस्तक केन्द्र ग्रामीण क्षेत्रों में शालाओं से जुड़ने के कारण अत्यधिक सफल नहीं हुए। पुस्तकालय सतत् शिक्षा के योगदान में अपनी सशक्त भूमिका से निःसंदेह ही जातिगत भेदभाव एवं उम्र के बंधन से ऊपर बौद्धिक वातावरण के निर्माण में कर रहे है। प्राथमिक शिक्षा के लोकव्यापीकरण के साथ–साथ प्रौढ़ शिक्षा, महिला शिक्षा एवं शाला त्यागी बालक / बालिकाओं के लिये नियमित व स्वाध्ययन करने हेतु ग्रामीण पुस्तकालय भी निश्चित रूप से अपने महत्व को आगामी वर्षों में सिद्ध करेंगे। अध्ययन का उद्देश्य –

शोधार्थी द्वारा उद्देश्यों को रेखांकित किया गया है :

- 1. पुस्तकालय के प्रति शिक्षकों का दृष्टिकोण समझना।
- ग्रन्थालयों के सम्बन्ध में बच्चों के विचारों का आकलन करना।
- 3. ग्रन्थालयों के सम्बन्ध में समाज का विचार जानना।
- शिक्षा के प्रचार प्रसार में विद्यालयीन पुस्तकालय के योगदान को ज्ञात करना।
- विद्यालयीन पुस्तकालय के विकास में आने वाली समस्याओं को जानना।

शोध प्रश्न –

"KksK-Fkb2]kjk fuEukfadr "Kksk i žu fod flr fd, x, gSi

- क्या संस्था में पुस्तकालय होने पर छात्रों की रूचि पर कोई प्रभाव नहीं पड़ता है?
- क्या पुस्तकालय से उनकी उपलब्धि में कोई सार्थक परिवर्तन परिलक्षित नहीं होता है।
- क्या पुस्तकालय के प्रति शिक्षकों में कोई रूचि पाई जाती है?
- क्या पुस्तकालय को शिक्षक व समाज द्वारा महत्व नहीं दिया जाता है?
- क्या शिक्षा के प्रचार–प्रसार में ग्रंथालयों का कोई सार्थक योगदान परिलक्षित नहीं होता है।

अध्ययन की प्रकृति –

इस अध्ययन की प्रकृति सर्वेक्षणात्मक है।
न्यादर्श –

इस अध्ययन हेतु खाचरौद विकासखण्ड उज्जैन, के 25 प्रारम्भिक विद्यालयों के ग्रंथालयों का अध्ययन किया गया है।

क्र.	शाला का नाम	क्र.	शाला का नाम
1	शा.प्रा.वि. सिमरोल	14	शा.पू.मा.वि. पालना
2	शा.पू.मा.वि. सिमरोल	15	शा.पू.मा.वि.गुराडिया
3	शा.पू.मा.वि. नावरिया	16	शा.पू.मा.वि. नवादा
4	शा.प्रा.वि. भैंसोला	17	शा.प्रा.वि. पासलोद
5	शा.पू.मा.वि. भैंसोला	18	शा.पू.मा.वि. खामरिया
6	शा.पू.मा.वि. कडियाली	19	शा.पू.मा.वि. रोहलखुर्द
7	शा.पू.मा.वि. सूरजाखेड़ी	20.	शा.पू.मा.वि. उन्हैल
8	शा.पू.मा.वि. मडावदी	21	शा.पू.मा.वि. मगरा
9	शा.पू.मा.वि.	22	शा.पू.मा.वि.
	पिपलौदापंथ		चिरोलाछोटा
10	शा.पू.मा.वि.	23	शा.पू.मा.वि.
	बरखेड़ा		पिपलौदा बागला
11	शा.पू.मा.वि.	24	शा.प्रा.वि.
	आक्यानजीक		आक्यानजीक
12	शा.प्रा.वि. रजला	25	शा.पू.मा.वि.
13	शा.पू.मा.वि. घुड़ावन		चम्बल पाडल्या

उपकरण –

विद्यालयीन पुस्तकालय के सन्दर्भ में विद्यार्थी व शिक्षक से साक्षात्कार लिए। प्रश्नावलियों द्वारा प्रदत्त उत्तरों का संकलन कर विश्लेषण एवं निष्कर्ष निकाले गये तथा सुझाव दिये गये।

सांख्यिकी –

प्रस्तुत शोध में प्राप्त प्रदत्तों का सारणीयन किया जावेगा। इसमें निर्दिष्ट आकलन प्रश्नावली के निर्देशानुसार किया गया है।

प्रदत्तों का सारणीयन एवं विश्लेषण –

प्रारम्भिक ग्रन्थालयों के चयनित शिक्षकों की प्रश्नावली से प्राप्त प्रदत्तों का प्रतिशत ज्ञात कर उनका विश्लेषण किया गया है। तत्पश्चात उन ग्रंथालयों के विद्यार्थियों की प्रश्नावली से प्राप्त प्रदत्तों का प्रतिशत ज्ञात कर विश्लेषण किया गया है।

निष्कर्ष

 अधिकांश शिक्षकों का मानना है कि पुस्तकालय भवन न तो अन्दर से सुसज्जित है न ही व्यवस्थित है। इससे विद्यार्थियों के मन में पुस्तकालय के प्रति सकारात्मक दृष्टिकोण जागृत नहीं होता है।

- अधिकांश पाठकों को यह भी मानना है कि पुस्तकालय में प्राकृतिक प्रकाश व वायु की व्यवस्था है जो कई बार पर्याप्त नहीं होता है परन्तु कृत्रिम प्रकाश की व्यवस्था नहीं है।
- अध्ययन में लिए गए विद्यालयों के पुस्तकालयों में से ज्यादातर में पुस्तकें रखने के लिए अलमारियों की व्यवस्था है।
- 4. आधे से कम पुस्तकालयों में मासिक पत्रिकाएं आती है एक तिहाई से अधिक पुस्तकालयों में पत्रिकाएँ नहीं आती है। यह पाठकों के लिये अच्छे संकेत नहीं हैं।
- लगभग 59 प्रतिशत विद्यालयों में एक समाचार पत्र आता है। इस प्रकार की स्थितियाँ विद्यालय व समाज दोनों के लिए हितकर नहीं है।
- एक तिहाई से अधिक विद्यालयों में विद्यार्थियों को पढ़ने के लिये अखबार नहीं दिए जाते हैं।
- रसभी विद्यार्थियों का यह मानना है कि पुस्तकालय शिक्षा में सहायक हैं।
- 66 प्रतिशत शिक्षकों ने शासन से पुस्तकालय को व्यवस्थित करने की अपेक्षाएं बताई है।
- ग्रंथालय में बैठने के लिए दरी के अलावा अन्य फर्नीचर नहीं के बराबर है जबकि फर्नीचर ग्रंथालय की मूलभूत आवश्यकता हैं।
- 10. अधिकांश शिक्षकों का मानना है कि सभी विद्यालयों में ग्रंथालय तो हैं परन्तु वह कक्षा–कक्ष में लगता है जिससे पढ़ाई में व्यवधान की स्थिति निर्मित होती है।
- 11. अधिकांश शिक्षकों के द्वारा विद्यार्थियों को और विद्यार्थियों के द्वारा अपने साथियों को पुस्तकें पढ़ने के लिए प्रेरित किया जाता है।
- 12. अधिकांश शिक्षकों के मतानुसार शिक्षकों के पास अन्य बहुत से कार्य होते है जो उसके ग्रंथालय खुलने
- व ग्रंथालय सम्बन्धित कार्यों पर प्रभाव डालते हैं। 13. पुस्तकों के कटने फटने अथवा देर से लौटाने पर विद्यार्थियों से दण्डस्वरूप राशि लेने का प्रावधान है परन्तु इससे पुस्तकें पढ़ने में विद्यार्थियों की रूचि कम हो जाने के भय से अधिकांश शिक्षकों द्वारा किसी भी प्रकार का अर्थदण्ड नहीं लिया जाता है।
- 14. अधिकांश शिक्षकों का मानना है कि विद्यार्थियों को कहानी व मनोरंजन की पुस्तकें रूचिकर लगती है परन्तु इन पुस्तकों का पुस्तकालय में अभाव है।

	उत्तर अ		उत्तर	ब	उत्तर स		उत्त	र द
शिक्षकों हेतु प्रश्न (न्यादर्श 25)	स.	%	. स	%	स.	%	स.	%
प्र. 1. पुस्तकालय किस भवन में लगता है ?	0	0	0	0	25	100	0	0
अ. किराये के ब. पंचायत के								
स. शाला के द. स्थानीय समुदाय द्वारा उपलब्ध								
प्र. 2. आपके द्वारा ग्रंथालय से पुस्तक लेने बाबत विद्यार्थियों को	25	100	0	0	—	-	-	_
प्रेरित किया जाता है?								
अ. हाँ ब. नहीं								
प्र. 3. आपके द्वारा विद्यार्थियों को वाचन सुविधा उपलब्ध कराई								
जाती है? —	11	44	6	24	6	24	2	8
अ. पुस्तकालय समय में ब. वाचन सुविधानुसार								
स. आपकी सुविधानुसार द. कोई सुविधा नहीं								
प्र. 4. आपके द्वारा विद्यालय में प्रवेश हेतु कितने बच्चों को	17	68	3	12	3	12	2	8
प्रोत्साहित किया गया –								
अ. 5 से 10 ब. 10 से 15								
स. 15 से 20 द. एक भी नहीं								
प्र. 5. आपके विद्यालय में कितने प्रतिशत विद्यार्थी पुस्तकालय	10	40	6	24	8	32	1	4
नियमों का पालन करते हैं–								
अ. 50 प्रतिशत ब. 25 प्रतिशत								
स. १०० प्रतिशत द. ० प्रतिशत								
विद्यार्थी एवं पाठकों हेतु प्रश्न (न्यादर्श 250)								
प्र. 6. आपके विद्यालय में पुस्तकालय कहाँ स्थित है?	62	25	1	.5	183	73	4	1.5
अ. मध्य में ब. कक्षा कक्ष में								
स. शाला के बाहर द. बारामदे में								
प्र. ७. पुस्तकालय प्रकाश एवं वायु की पर्याप्त व्यवस्था है ?	238	95	12	5		_	_	_
अ. हाँ ब. नहीं								
प्र. ८. पुस्तकालय में आपके बैठने के लिए है –	26	10	210	84	7	3	7	3
अ. कुर्सी ब. बेंच								
स. दरी द. कुछ भी नहीं								
प्र. 9. पुस्तकों को व्यवस्थित करने के लिए अलमारी या शेल्फहै–	237	95	13	5	_	_	_	_
अ. हाँ ब. नहीं								
प्र. 10. आप को समाचार पत्र पढने दिया जाता है ?	196	78	54	22	_	_	_	_
अ. हाँ ब. नहीं								
प्र. 11. आप पुस्तकालय में किस प्रकार की पुस्तकें पढते हैं?	3	1	13	5	79	32	154	62
अ. व्यवसाय सम्बंधी ब. विषय सम्बंधी								
स. कहानी व मनोरंजन द. सभी प्रकार की								
प्र. 12. आपके पुस्तकालय खुलने का समय क्या है ?	110	44	37	15	4	2	99	40
अ. सुबह ब. शाम								
स. हर समय द. शिक्षक इच्छानुसार								

तालिका क्र. १. शिक्षकों एवं पाठक / विद्यार्थियों हेतु प्रश्न

15. अधिकांश शिक्षकों का माननता है कि, सभी पुस्तकालय में दृश्य–श्रव्य उपकरण के नाम पर शासन द्वारा उपलब्ध टेलीविजन, कम्प्यूटर, रेडियो आदि उपलब्ध है परन्तु विद्युत के अभाव में इनका उपयोग नहीं कर पाते है। जहाँ विद्युत व्यवस्था है वहाँ शिक्षकों के द्वारा इनका उपयोग किया जा रहा है।

सुझाव –

- पुस्तकालय के लिए अलग से कमरें की व्यवस्था की जाए जिससे विद्यार्थी एकाग्रता से पुस्तकें पढ़ने का लाभ ले सके।
- पुस्तकालय में विद्यार्थियों की रुचि के अनुसार कहानी व मनोरंजन व अन्य पठनीय सामग्री की व्यवस्था हो।
- पुस्तकालय के लिये अलग से एक शिक्षक या ग्रंथपाल मनोनीत हो जिससे विद्यार्थियों की पढ़ाई पर असर न पड़े।

- विद्यालय की विद्युत की व्यवस्था की जाए ताकि विद्यार्थियों को दष्थ्य–श्रव्य उपकरणों का लाभ मिल सकें।
- विद्यार्थियों को ग्रंथालय के लाभ व नियमों को बताकर और अधिक विद्यार्थियों को पुस्तकें पढ़ने के लिए प्रेरित किया जाए।
- 6. पुस्तकें कटने फटने व देर से लौटाने पर पाठकों से दण्ड राशि लेने के प्रावधान में विद्यार्थियों से कम से कम राशि ली जाए जिसको वे आसानी से अदा कर सके और उस राशि को ग्रंथालय के उपयोग में लगाया जाए।
- 7. समय–समय पर पुस्तकालय में कीटनाशकों का छिड़काव किया जाए जिससे पुस्तकों व फर्नीचर को दीमक अथवा अन्य कीड़ों से बचाया जा सके।

संदर्भ ग्रंथ सूची

अग्रवाल, श्यामसुंदर, ग्रन्थ व समाज, राज पब्लिशिंग हाउस, जयपुर। अग्रवाल, श्यामसुंदर ग्रंथालय प्रबंध के मूल तत्व, राज पब्लिशिंग हाउस, जयपुर। अग्रवाल, श्याम सुंदर, ग्रंथालय संचालन व प्रकाशन, श्रीराम मेहरा एण्ड कंपनी, आगरा। अग्रवाल, एम.एल., शर्मा प्रमो, सार्वजनिक पुस्तकालय, आरबीएसए पब्लिशर्स, जयपुर। बागरी, एन.डी., पुस्तकालय पद्धति, नीलम प्रकाशन, इलाहाबाद कालभोर गोपीनाथ, पुस्तकालय शिक्षा और समाज, म.प्र. हिन्दी ग्रंथ अकादमी। लाल रमन बिहारी, शिक्षा के समाज शास्त्रीय और दार्शनिक सिद्धान्त, रस्तोगी पब्लिशर्स, मेरठ। डॉ. कष्पाल प्रेम, स्वतन्त्रता के बाद शिक्षा की प्रगति, नई दिल्ली। माथुर एस.एस., शिक्षा के सिद्धान्त, विनोद प्रकाशन आगरा। ओडत्र एल.के., शिक्षा के समाज शास्त्रीय और दार्शनिक पीटिका़। पाठक एवं त्यागी, शिक्षा के दार्शनिक सिद्धान्त, विनोद पुस्तक मंदिर, आगरा चतुर्थ संस्करण। डॉ. रंगनाथन, ग्रंथालय विज्ञान की भूमिका, एशिया पब्लिशिंग हाउस,मुम्बई डॉ. सक्सेना एल एस, पुस्तकालय एवं समाज, म.प्र. हिन्दी ग्रंथ अकादमी। डॉ. शर्मा आर.ए. शिक्षा अनुसंधान, लॉयल बुक डिपो, मेरठ। व्यास, एस.डी. पुस्तकालय एवं समाज, पंचशील प्रकाशन, जयपुर। मध्यप्रदेश हिन्दी ग्रंथ अकादमी, पुस्तकालय संगठन एवं व्यवस्थापन, तष्तीय संस्करण।

* डॉ. अरूण प्रकाश पाण्डेय : प्राध्यापक, शासकीय शिक्षा महाविद्यालय, उज्जैन, म. प्र e-mail : amanilion@gmail.com ** श्रीमती पुष्पा जोशी : शोध छात्रा, शासकीय शिक्षा महाविद्यालय, उज्जैन, म. प्र

शिक्षकों में शैक्षिक प्रशासन के प्रति अभिवृत्ति ------ द्वारा, श्रीमती अंजना शरद

EDUSEARCH
ISSN: 0976 - 1160
Vol 4. No. 1. April -2013

Hindi Section

शिक्षकों में शैक्षिक प्रशासन के प्रति अभिवृत्ति : एक अध्ययन

श्रीमती अंजना शरद *

सारांश

शिक्षा के क्षेत्र में लगातार कई परिवर्तन हो रहे हैं। समय– समय पर पाठ्यक्रम, परीक्षा प्रणाली और छात्रों की व्यावसायिक आकॉक्षाएँ आदि में निरंतर बदलाव आ रहा है। ऐसे बदलते हुए परीवेश में शैक्षिक प्रबन्ध (प्रशासन) का बहुत महत्वूपर्ण स्थान है। शिक्षक, विद्यालय से जुड़ी हर एक महत्वपूर्ण कार्य को करने हेतु बाध्य है। जैसे शैक्षिक नियम, पाठ्यपुस्तकों का निर्माण और चयन, पाठ्य चर्या, पालक–शिक्षक समिति का गठन, परीक्षा करवाना, पाठ्य–सहगामी कार्य आदि के साथ वह न्याय कर पा रहा है या नहीं। शिक्षक की निष्ठा ही, धैर्य और कार्य के प्रति लगन शैक्षिक ढाँचा को मजबूती प्रदान करता है। 'शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृति अध्ययन हेतु, भिलाई शहर के विद्यालयों के 180 शिक्षकों का चयन कर उन

पर प्रो. शर्मा द्वारा विकसत'ए.टी.ई.ए.एस.' मापनी का प्रयोग किया गया। निष्कर्ष से ज्ञात होता है कि प्राथमिक शिक्षकों में प्रशासन के प्रति अभिवृत्ति माध्यमिक स्तर के शिक्षकों से सार्थक रूप से अधिक होती है।

प्रस्तावना

शिक्षा एक सामजिक प्रक्रिया है, जो व्यक्ति को दिशा दिखाती है। शिक्षा का मुख्य कार्य व्यक्ति में ऐसे परिवर्तन लाना होता है जो उसके स्वयं के विकास का मार्ग प्रशस्त करे एवं उसके द्वारा समाज के विभिन्न क्षेत्रों में विकास की जागरूकता उत्पन्न हो।

शिक्षा के निर्धारित उद्देश्यों की प्राप्ति का मुख्य आधार शिक्षक है। शिक्षक राष्ट्र का निर्माता और सामाजिक अभियंता होता है और इस रूप में उसका कार्य ज्ञान एवं संस्कृति के संरक्षण तथा हस्तांतरण तक ही सीमित नहीं है, बल्कि परिस्थितियों के अनुरूप आवश्यक सामाजिक परिवर्तन भी लाना है।

शिक्षक की भूमिका में न सिर्फ विद्यार्थियों को अध्यापन कराना होता है जबकि उनका कर्तव्य विद्यार्थियों को सही–सही दिशा प्रदान करना तथा शैक्षिक कार्यक्रमों के प्रति रूचि जागृत करना भी है। शिक्षा, बालकों के व्यवहार में वांछनीय परिवर्तन लाने का एक शस्त्र है। परन्तु व्यवहार परिवर्तन तभी संभव है, जब शैक्षिक कार्यक्रमों को चलाने के लिये सही योजना बनाई जाये तथा शैक्षिक ढाँचा का निर्माण योजनाबद्ध तरीके से हो।

प्रशासन हर क्षेत्र का एक मुख्य हिस्सा होता है। आज के इस भौतिकवादी युग में हर वस्तु का मोल में तय होता है और यही वजह है कि हमारी संस्कृति एवं सभ्यता का अस्तित्व कम होता दिखाई दे रहा है। शिक्षा के माध्यम से हम अपनी संस्कृति, अपने देश, अपने मूल्यों, आदर्शों को सुरक्षित एवं संरक्षित रख सकते हैं। परन्तु हम पाते हैं कि शिक्षा एक भौतिक वस्तु बनकर रह गई है। विद्यार्थी हमारे देश के धरोहर हैं। इनके भविष्य को उज्वल बनाने के लिए शैक्षिक प्रशासन की आवश्यकता हर स्तर पर दिखाई दे रही है, चाहे वह प्राथमिक स्तर हो या माध्यमिक स्तर।

शैक्षिक प्रशासन

मोहमन ने 'विद्यालय प्रशासन' में प्रशासन के व्यवहारिक पक्ष पर बल देते हुए कहा है कि प्रशासन उन क्रियाओं को कहते हैं जिनमें –

—ऐसी शिक्षण क्रिया का नियोजन किया जाता है जो भौतिक साधन, आर्थिक व्यवस्था तथा शैक्षिक परिस्थिति के सम्बन्ध में नीति का निश्चय की है।

–इस योजना के लिए व्यक्तियों का चुनाव, उन्हें कार्य में लगाने तथा समन्वय की व्यवस्था होती है।

–विद्यालय और प्रशासकीय कार्यालय के बीच सूचना के आदान–प्रदान की व्यवस्था होती है।

–आवश्यक नेतृत्व प्रदान किया जाता है।

सीयर ने प्रशासकीय प्रक्रिया का विश्लेषण करते हुए कहा है कि शैक्षिक प्रशासन के अंतर्गत क्रियाओं के नियोजन, संगठन, निर्देशन, समायोजन तथा नियंत्रण की व्यवस्था रहती है।

पिंटेंजर के अनुसार शैक्षिक प्रशासन के तीन महत्वपूर्ण अंग हैं।

–नीति निर्धारण, क्रियान्वयन और उसमें सुधार

—शिक्षा मे लगे हुए व्यक्तियों का चुनाव, तैयारी समन्वय और उनका नेतृत्व तथा

–शैक्षिक उद्देश्य के प्राप्ति के प्रयास।

विद्यालय के कार्यों का संचालन : किसी भी विद्यालय का प्रशासक उसका प्रधानाध्यापक विद्यालय का प्रशासन पूर्ण रूप से प्रधान अध्यापक द्वारा नियन्त्रित नहीं होता बल्कि उसे शासन के निर्देशों के अनुसार कार्यों का संचालन एवं नियंत्रण करना होता है। अतः विद्यालय के कार्यों का संचालन दो प्रकार के प्रशासनों द्वारा नियंत्रित है –

बाह्य प्रशासन— बाह्य प्रशासन का अभिप्राय उस शैक्षिक प्रशासन से है, जिसके अंतर्गत सरकार द्वारा निर्मित वे नीतियाँ एवं योजनाएँ आती हैं जो राष्ट्रीय या राज्य स्तर पर होती हैं। जैसे—पाठ्यक्रम, पाठयपुस्तक, सत्रावधि, भौतिक, मानवीय संसाधन तथा तात्कालिक नवीन नीतियाँ। आन्तरिक प्रशासन : आन्तरिक प्रशासन का अभिप्राय विद्यालय प्रशासन से है। उसके अंतर्गत विद्यालय की दिन—प्रतिदिन वे सब गतिविधियाँ आती हैं जिनका निर्धारण प्रधान अध्यापक द्वारा होता है। जैसे समय—तालिका, विद्यालय के नियम एवं नियमावली, तालिका एवं वार्षिक परीक्षाएँ आदि।

संबंधित शोध अध्ययन

गुप्ता (1976) में शोध करके यह पाया कि शैक्षिक प्रशासन के प्रति शिक्षकों की अभिवृत्ति सकारात्मक पाई जाती है क्योंकि इन शिक्षकों में कार्य करने की भावना प्रबल होती है तथा ये शिक्षक अपने कार्य को निष्ठा से करते हैं। नंदा, ए. आर. (1982) ने प्राथमिक विद्यालय के प्रमुख व्यक्तियों में पाया कि उनके अंदर नेतृत्व क्षमता बहुत ही कम पाई गई और वे प्रभावी ढंग से शाला प्रबंधन करने में असमर्थ पाये गये।

शर्मा, एस. (1982) ने अपने शोधकार्य में पाया कि जिन हेडमास्टरों में नेतृत्व क्षमता पाई गई उन्होंने अपनी विद्यालय के वातावरण को सौहार्द्रपूर्ण बनाया।

दास एवं शुक्ला ने क्रमशः (1980) और (1983) में एक शोध कार्य किया जिसमें उन्होंने प्रधान अध्यापकों में व्यवहार और शिक्षकों की कार्य के प्रति अभिवृत्ति सकारात्मक पाया।

हसदिल (1985) द्वारा एक शोध शिक्षकों और विद्यालय प्रमुख के मध्य किया गया तथा उन्होने यह निष्कर्ष निकाला कि शैक्षिक प्रशासन एक ऐसा कार्य है जिसमें सिर्फ प्रधान अध्यापकों की ही भूमिका का महत्वपूर्ण स्थान है बल्कि वहाँ कार्यरत हर एक शिक्षक की भूमिका महत्वपूर्ण है। शिक्षकों का अनुभव एवं योग्यता शैक्षिक कार्य में महत्वपूर्ण स्थान करता है।

मंडलिया, गुप्ता, (1990) ने शैक्षिक संस्थानों एवं कार्यक्रमों पर एक शोध कार्य किया तथा पाया कि शैक्षिक स्तरों को और उन्नत बनाने की कोशिश की जानी चाहिए। महासहाब्दे, आर.एस. (1990) ने अपने शोधकार्य में यह पाया कि बालकों के शैक्षिक उपलब्धि पर शिक्षकों के नेतृत्व क्षमता, कार्य संतुष्टि तथा शैक्षिक वातावरण का कोई प्रभाव नहीं पाया जाता है।

पंकजम, जी. (1991) ने तमिलाडु में में DIETs के तहत चलने वाले कार्यक्रमों को और सुधारने की बात कही, क्यों कि उन्होंने अपने शोधकार्य में यह पाया कि प्राथमिक शालाओं के शिक्षक अपने कार्य के प्रति उदासीन थे। पाती, एस. (1992) ने उच्चर माध्यमिक विद्यालयों के प्रमुख तथा प्राचार्य के मध्य एक शोधकार्य किया तथा पाया कि प्राचार्य एंव शिक्षक विद्यालय के विभिन्न शैक्षिक समस्याओं का समाधान करने में अपने कार्य को सुचारू रूप से करने की कोशिश करते हैं।

सोलंकी, के. एन. (1992) ने शैक्षिक प्रबंधन एवं विद्यालय

वातावरण के बीच एक अध्ययन किया और पाया कि विद्यालय, उसमें अध्ययनरत् विद्यार्थी एवं विद्यालय वातावरण के बीच अच्छा तालमेल, एक सौहार्द्रपूर्ण वातावरण बनाता है।

विलजेक्सी (1992) ने बांगलादेश में 30 विद्यालयों का शोध हेतु चयन किया और यह जानना चाहा की विभिन्न आयामों के आधार पर विद्यालय में शैक्षिक उपलब्धि पर क्या प्रभाव पड़ता है। उच्चतर माध्यमिक स्तर के शिक्षकों की अभिवृति सकारात्मक होने से अध्यापन कार्य सुचारू रूप से चलता है।

चौहान, के. आर. (2005) ने माध्यमिक एवं उच्चतर माध्यमिक शालाओं के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति पर शोध किया तथा यह पाया कि –

महिला एवं पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृति में कोई सार्थक अंतर नहीं है।

एेनी अइडला और माजा वादी (युनिवर्सिटी ऑफ टोरंटो 2008) में विद्यालय प्रशासन की विद्यालय की उपलब्धि और राष्ट्रीय परीक्षा प्रणाली पर उनकी अभिवृति पर एक अध्ययन किया। यह पाया कि विद्यार्थियों की शैक्षिक उपलब्धि पर नये परीक्षा प्रणाली का प्रभाव पाया गया। विद्यालय वातावरण और प्रभारी का प्रभाव बालकों पर पडता है।

उद्देश्य

शोध अध्ययन हेतु निम्नलिखित उद्देश्यों का निर्धारण किया गया है :–

- शिक्षकों के स्तर, लिंग, अनुभव के संदर्भ में शैक्षिक प्रशासन के प्रति अभिवृत्ति का मापन करना।
- प्राथमिक एवं माध्यमिक स्तर के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य के अंतर को ज्ञात करना।
- प्राथमिक एवं माध्यमिक स्तर के शिक्षिकाओं की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य के अंतर को ज्ञात करना।
- प्राथमिक एवं माध्यमिक स्तर के पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य के अंतर को ज्ञात करना।
- प्राथमिक स्तर के उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य के अंतर को ज्ञात करना।

 माध्यमिक स्तर के उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य के अंतर को ज्ञात करना।

शोध प्रश्न

- इस अध्ययन हेतु निम्नलिखित शोध प्रश्नों का निर्माण किया गया है :--
- 1— क्या प्राथमिक एवं माध्यमिक स्तर के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर है?
- 2—क्या प्राथमिक एवं माध्यमिक स्तर के शिक्षिकाओं की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अन्तर है ?
- 3-क्या प्राथमिक एवं माध्यमिक स्तर के पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अन्तर है ?
- 4—क्या प्राथमिक स्तर के उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर है ?
- 5—क्या माध्यमिक स्तर के उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर है ?

न्यादर्श

स्तर, लिंग एवं अनुभव के आधार को ध्यान में रखते हुए भिलाई शहर के प्राथमिक एवं माध्यमिक विद्यालयों में कार्यरत 180 शिक्षकों का चयन किया गया है। प्राथमिक एवं माध्यमिक स्तरों के कम और अधिक अनुभवी महिला एवं पुरूष शिक्षकों का चयन किया गया है।

विधि

अध्ययन हेतु अनुसंधान में विवरणात्मक विधि को अपनाया गया है। तुलनात्मक अध्ययन के लिए मध्यमान के अंतर की सार्थकता 't' मूल्य द्वारा ज्ञात किया गया।

उपकरण

शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मापन हेतु *डॉ. शर्मा* (रिटायर्ड प्रोफेसर, पंजाब यूनिवर्सिटी) द्वारा निर्मित। Attitude Towards Educational Administration (ATEAS) का प्रयोग किया गया है।

विश्लेषण एवं निष्कर्ष

प्रश्न 1—क्या प्राथमिक एवं माध्यमिक शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर है ? उपरोक्त अनुसंधान प्रश्न की पुष्टि हेतु शर्मा द्वारा निर्मित शैक्षिक प्रशासन के प्रति अभिवृत्ति मापनी का प्रयोग किया गया तथा उचित सूत्र लगाकर 'टी' मूल्य ज्ञात किया गया।

तालिका नं. – 1 प्राथमिक एवं माध्यमिक शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का सांख्यिकी विवरण

समूह	Ν	Mean	SD	df	t
प्राथ. शि	80	55.33	10.88	178	4.23
माध्य.शि	100	48.97	09.66		p<.01

प्राथमिक एवं माध्यमिक विद्यालयों के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का मध्यमान क्रमशः 55.53 तथा 48.97 पायी गई। मध्यमानों में अंतर की सार्थकता की जांच हेतु 't'परीक्षण किया गया, जिसका मान 4.23 प्राप्त हुआ। यह मान 178 df, 0.01 स्तर पर सार्थक पायी गई। निष्कर्ष यह निकलता है कि प्राथमिक एवं माध्यमिक शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य अंतर पाया गया ।

तालिका नं. – 2

प्राथमिक एवं माध्यमिक स्तर के शिक्षिकाओं की शैक्षिक प्रशासन के प्रति अभिवृत्ति का अध्ययन

समूह	Ν	Mean	SD	df	t
प्रा.शिक्षिका	60	55.23	10.96	108	5.67
मा.शिक्षिका	50	45.36	07.21		p<.01

उपरोक्त तालिका से यह ज्ञात किया जात सकता है कि प्राथमिक एवं माध्यमिक स्तर के शिक्षिकाओं की शैक्षिक प्रशासन के प्रति अभिवृत्ति का मध्यमान क्रमशः 55.23 तथा 45.36 पाई गई। प्राथमिक स्तर की शिक्षिकाओं का मध्यमान अधिक पाया गया तथा मध्यमानों में अंतर की सार्थकता की जांच हेतु 'टी' परीक्षण किया गया जिसका मान 5.67 प्राप्त हुआ। यह मान 0.01 स्तर पर सार्थक पाया गया।

अतः प्राप्त आंकड़ों से यह निष्कर्ष निकलता है कि प्राथमिक एवं माध्यमिक स्तर के शिक्षिकाओं की शैक्षणिक प्रशासन के प्रति अभिवृत्ति के मध्य अंतर पाया गया। प्रशन 3 – क्या प्राथमिक एवं माध्यमिक स्तर के पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर है ? तालिका नं. – 3

प्राथमिक एवं माध्यमिक स्तर के पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का अध्ययन

समूह	N	Mean	SD	df	t
प्रा.शिक्षिक	20	56.45	10.64	68	1.37
मा.शिक्षिक	50	52.58	10.62		NS

उपरोक्त तालिका से यह ज्ञात किया जा सकता है कि प्राथमिक एवं माध्यमिक स्तर के पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का मध्यमान क्रमशः 56.45 तथा 52.58 पाया गया। मध्यमानों में अंतर की सार्थकता की जांच हेतु टी परीक्षण किया गया जिसका मान 1.37 प्राप्त हुआ। यह मान 0.01 के मान से न्यूनतम है।

अतः प्राप्त आंकड़ों से यह निष्कर्ष निकलता है कि प्राथमिक एवं माध्यमिक स्तर के पुरूष शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर नहीं पाया गया।

प्रश्न 4: — क्या प्राथमिक उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अन्तर है?

तालिका नं. – 4

प्राथमिक स्तर के निम्न एवं उच्च अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का अध्ययन

समूह	Ν	Mean	SD	df	t
उच्च अनु.	49	55.95	10.62	78	0.42
निम्न अनु.	31	54.87	11.25		NS

उपरोक्त तालिका से यह ज्ञात किया जा सकता है कि उच्च एवं निम्न अनुभव वाले शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का मध्यमान क्रमशः 55.95 तथा 54.87 पाया गया। मध्यमानों में अंतर की सार्थकता की जांच हेतु टी—परीक्षण किया गया जिसका मान 0.42 का प्राप्त हुआ जो कि 0.05 सार्थकता स्तर के मान से कम है। अतः प्राप्त आंकड़ों से यह निष्कर्ष निकलता है कि प्राथमिक स्तर के उच्च अनुभवी तथा निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर नहीं है।

प्रश्न 5: — क्या माध्यमिक स्तर पर उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अन्तर है?

तालिका नं. – 5

माध्यमिक स्तर के निम्न एवं उच्च अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का अध्ययन

समूह	Ν	Mean	SD	df	t
उच्च अनु.	60	49.16	10.49	98	0.24
निम्न अनु.	40	48.67	09.11		NS

उपरोक्त तालिका से यह ज्ञात किया जा सकता है कि माध्यमिक उच्च अनुभवी एवं निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति का मध्यमान क्रमशः 49.16 तथा 48.67 पाया गया। मध्यमानों में अंतर की सार्थकता की जांच हेतु टी-परीक्षण किया गया जिसका मान 0.24 प्राप्त हुआ जो कि 0.05 स्तर के मान से न्यूनतम है। अतः प्राप्त आंकड़ों से यह निष्कर्ष निकलता है कि प्राथमिक स्तर के उच्च अनुभवी तथा निम्न अनुभवी शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति के मध्य सार्थक अंतर नहीं है।

शोध निष्कर्ष

- प्राथमिक शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति माध्यमिक शिक्षकों की तुलना में सार्थक रूप से अधिक है।
- प्राथमिक शिक्षिकाओं की शैक्षिक प्रशासन के प्रति अभिवृत्ति माध्यमिक शिक्षिकाओं की तुलना में सार्थक रूप से अधिक है।
- प्राथमिक एवं माध्यमिक स्तर के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति सार्थक अंतर नहीं होता है।
- उच्च एवं निम्न अनुभव वाले प्राथमिक स्तर के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति सार्थक अंतर नहीं होता है।
- उच्च एवं निम्न अनुभव वाले माध्यमिक स्तर के शिक्षकों की शैक्षिक प्रशासन के प्रति अभिवृत्ति सार्थक अंतर नहीं होता है।

संदर्भ ग्रंथ सूची

बेस्ट, डब्ल्यू.जॉन तथा खान, वी.जेम्स;(2006), ''शिक्षा में अनुसंधान'', नई दिल्लीः पी.एच.आई. लर्निंग प्राइवेट लिमिटेड, पृ — 253

चौहान, के. आर. ;(2005), ''प्राथमिक एवं माध्यमिक शालाओं में कार्यरत पुरूष एवं महिला शिक्षकों की प्रशासनिक अभिवृति पर तुलनात्मक अध्ययन'', इंडियन एजूकेशन एब्सट्रेक्स, वॉल्यूम–5, नं. 1 एंड 2, पृ – 40

ईश्वरी, पी.; (2009), ''सहायक एलीमेंट्री शैक्षिक अधिकारी के मध्य व्यक्तित्व एवं प्रशासनिक और शैक्षिक जिम्मेदारी पर अध्ययन'', जरनल ऑफ क्म्यूनिटी गाइडेंस एंड रिसर्च, वॉल्यूम — 26, नं. 1, पृ. 18—22

जायसवाल, सीताराम;(2007) ''शैक्षिक प्रशासन'', आगराः साहित्य प्रकाशन, पृ. (1–165)

जोशी, रजनी, (2001), ''विद्यालय प्रशासन एव संगठन'', इलाहाबादः शारद पुस्तक भवन, पृ. (20–35)

- महेश्वरी, ए. ; (2007), '' शैक्षिक प्रबन्धः प्रकार्यात्मक पहलू'', एडूट्रेक्स, वॉल्यूम—6, नं. —12, पृ (12—14)
- माथुर, एच.एम.; (1971), ''आधुनिक शैक्षिक प्रबन्धन'', नेशनल डिफेन्स कॉलेज, नई दिल्ली, एन.आई.ई. जरनल, एन. सी.ई आर.टी.

ओड़, एल. के. ;(1991), ''शैक्षिक प्रशासन'', जयपुर ः राजस्थान हिन्दी ग्रंथ अकादमी, पृ. (24–30)

राव, श्रीधर;(1988—92), ''शिक्षा का संगठन, प्रशासन एवं प्रबंधन'', शैक्षिक अनुसंधान की पांचवी सर्वेक्षण, वॉल्यूम —ए प्र. 711

शर्मा,आर.ए.; (2007), ''विद्यालय प्रबन्ध'', मेरठः आर.लाल बुक डिपो, पृ. 25

शर्मा, आर.ए. ;(2009), ''शिक्षा प्रशासन एवं प्रबंधन'', मेरठ; आर लाल बुक डिपो पृ. 66

शर्मा, टी.आर., (2010), ''शैक्षिक प्रशासन के प्रति अभिवृत्ति'', पंजाबी यूनिवर्सिटी, पटियाला. पृ.28

सोलंकी, कांतिलाल एन.; (1992), ''सौराष्ट्र क्षेत्र के माध्यमिक विद्यालय की शैक्षिक प्रबधंन एवं संघटित वातावरण के मध्य सम्बन्ध पर अध्ययन'', शैक्षिक अनुसंधान की पांचवी सर्वेक्षण, वॉल्यूम — 1, पृ. — 718

EDUSEARCH - ISSN : 0976 - 1160 Vol. 4 No. 1 Apr. 2013

सेठी, पी.एन. ;(1968), ''हरियाणा में ब्लॉक शिक्षा अधिकारी में प्रशासनिक समस्याओं पर एक अध्ययन'', कुरूक्षेत्र सरीन एवं सरीन ;(2009), ''शैक्षिक अनुसंधान विधियाँ'', पंचम संस्करण, आगराः अग्रवाल पब्लिकेशन्स, पृ. 118 ताज, एच. ;(1995), ''शिक्षकों की विद्यालयीन प्रशासन के भागीदारी का मापन'', इंडियन जरनल ऑफ साइकोमेट्री

एंड एजूकेशन, वॉल्यूम— 26 (1), पृ. (57—60)

वर्मा, जे.पी.; (2008), ''विद्यालय प्रबन्धन'', मेरठः आर. लाल बुक डिपो, पृ. 10

व्यास, भगवती लाल एवं अन्य; (2012); ''शैक्षिक व्यवस्था एवं विद्यालय संगठन'',आगरा : राधा प्रकाशन मंदिर, पृ, 35

* श्रीमती अंजना शरद : सहा. प्राध्यापक, भिलाई मैत्री कालेज, रिसाली, भिलई नगर, जिला दुर्ग (छत्तीसगढ). E-mail : ankitasharad3@gmail.com

ISSN: 0976 - 1160

© RESEARCHERS ORGANIZATION, BILASPUR. Chhattisgarh.

The facts and figures stated, conclusions researched and views expressed in the articles are of the authors concerned and should not be attributed to the editors of the journal or to Researchers Organization, Bilaspur. (C.G.)

SUBSCRIPTION					
Annual 3 Years Life Membership					
IndividualsRs.500.001200.005000.00InstitutionsRs.700.001800.007000.00					
ADVERTISEMENT TARIFF					
Full PageRs.5000.00Half PageRs.2500.00					
SUBSCRIPTION FORM DETAILS (Annual subscription commences with April and ends with October every year) 1. Name & Address in capital letters 2. Institution/Individual 3. Subscription for the Calendar Year 4. State Bank of India Draft (Branch IFS Code - SBIN : 0012123) No DatedDrawn on 5. e-mail address Date					
 SBI Bank Draft should be drawn in the name, Researchers Organization, Bilaspur (C.G) Payable at Bilaspur, (C.G.) along with subscription form may be sent to The Secretary, Flat H/2, Vaishali Nagar, Ward-13, Bilaspur. (C.G.) Pin. 495001. Subscription may directly be deposited SBI A/C No. 31577384568, Researchers Organization, Bilaspur. (Intercity Collection Charges Rs. 25.00 must be added to the subscription). Articles/Papers authored by two researchers, shall be treated as two individuals for the subscription point of view. 					

Published by Reseachers Organization, Bilaspur, (C.G.), Printed at Ankur Offset Printing Press, Brihaspati Bazar, Bilaspur. (C.G.)

HOW TO CONTRIBUTE RESEARCH ARTICLES
Researchers Organization Bilaspur, Chhattisgarh invites unpublished research articles in Education for publication in EDUSEARCH. Research Articles based on primary data shall be preferred. The objective of this is to provide a platform to the teachers, teacher- educators, educational administrators, and researchers to share their research experiences on improved educational practices, presentation of novel ideas and critical appraisal of educational problems etc. You may send research articles in about 4000 words/8 printed pages (double space printing) including an abstract in about 150 words, either in Hindi or English. Every article should contain following essential elements-introduction, related study, research questions, objectives, hypotheses, methodology, sample, tools used, data analysis, findings, discussion and reference. Reference style to be used as -
Kapoor, J. N. (2003, May) : 'Raising the Standard of Ph. D. Programmes: Some Suggestions in Scientific Research in Indian Universities. New Delhi: AIU.
In order to save the environment and time, soft copies (CD) and e-mail service etc. are preferred. Fonts to be used : English- Times New Roman - size 12 Hindi - Krutidev 010 - size 14 e-mail : raobvramana@yahoo.com : edusearch.jer@gmail.com
Every article should bear with a certificate (signed hard copy) mentioning unpublished article for publication in EDUSEARCH along with membership/subscription amount. <u>Articles/Papers authored by two researchers, shall be treated as two</u> <u>individuals for the subscription point of view.</u> Your response and valuable suggestions in this regard are highly solicited. Address for communication Dr. B.V.Ramana Rao , Flat-H/2, Vaishali Nagar, Ward - 13 Bilaspur. Pin. 495001. Chhattisgarh raobvramana@yahoo.com.