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CONTENTS

EDITORIAL

"The purpose of education is to make good human beings with skill and expertise... Enlightened human beings can be created by teachers. "

A.P.J.Abdul Kalam

The aim of education should be to prepare the individuals for the future ahead with complete realization of the self-Significant changes have taken place in the education sector. There is a need for the development of human skills, including life skills that meet the demands of the emerging knowledge economy. There is a need to promote the acquisition of knowledge and skills on a life-long basis to enhance the capacity of learners to adapt to the changing skill requirements. The changing social contexts of education as well as the national concerns for achieving the goals, demands a changed approach to education. To enhance the opportunities for all learners to become successful in their learning experience, we need to cultivate the moral and social values and have a closer relation between education and life. Resolution of various policies also laid stress on the need for radical reconstruction of the education system. The fast pace of generation and application of new knowledge, especially in the fields of science and technology, and its impact on the daily life of people brings into focus the importance of introducing learners to the rapidly changing world of knowledge. Research and Development looks forward for upgrading the skills of existing faculty; build synergies between teaching and research to promote excellence in both. Here are a few researchers who have contributed their knowledge through research.

Priyadarshini Muthukrishnan from SEGI University, aimed to find out different clusters that existed among the secondary school students with respect to variables namely Achievement Goals and Cognitive Self-Management. Three meaningful and district clusters were formed and the study concludes that the students should be promoted to develop mastery approach and cognitive strategies which will facilitate academic success. Dr. Annie Kavitha in her study on "Metacognition for Learners Accomplishment" claims that Metacognition plays a chief role for enhancing Mathematics Achievement of the students Dr. Vincent Thaninayagam and K. Malliga in their article on Emotional Maturity of Higher Secondary School Students of Madurai district, found that higher secondary school students emotional maturity is moderate and there is significant differences between mean scores of emotional maturity among gender,

locality and type of schools namely government and private schools. A.H. Koma/a investigated the relationship between test anxiety and academic achievement of secondary school students and found that test-anxiety has definite impact on academic achievement. A. S. Revathi attempted to study on the teaching styles of the In service Teachers andfound no significant differences in teaching style of In-service teachers owing to the difference in gender, location of school and marital status.

　　　　To all the contributors of this issue, we express our sincere gratitude. We welcome Research articles on Philosophy of Education, learning theory and technology and the recent trends in teacher education. Quality articles based on first hand experiences, reflection and reading will be considered for publication.

Dr. A. Alma Juliet Pamela

Associate Editor.

Achievement Goals and Cognitive Self- Management among the Secondary School Students

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ABSTRACT

This study aimed to find out the different clusters that exists among the secondary school students with respect to the variables: Achievement Goal orientation and Cognitive Self-Management. 405 secondary school students were considered for the study. The achievement Goal orientation scale (AGOS) developed and validated by the investigator was used to measure the sub- constructs of Achievement goal orientation. To measure Cognitive self-management (CSM) the instrument developed by Rude (1980) was adapted. k- means clustering technique was used and the results showed three meaningful and distinct clusters, which were called as performance approach & moderate cognitive self- management (cluster 1), work-avoidance & low cognitive self- management (cluster 2) and mastery approach & high cognitive self- management (cluster 3) respectively. Majority of the secondary students had cluster 2 (36.5%) and cluster 1 (36.0%) profile. The study concluded that the students should be promoted to develop mastery approach and cognitive strategies which will facilitate academic success. Some of the practical implications of the study were discussed.

Keywords: Achievement goals, cognitive self-management, secondary school students, self-regulation, motivation

INTRODUCTION

To provide a multidimensional perspective to the social-cognitive approach, recent researchers have made use of profiling procedures to investigate the dynamics of motivational constructs such as goal orientation. Wang and Biddle (2001) combined several social-cognitive theories, such as achievement goal theory (Duda, 2001; Nicholls, 1989), sport ability beliefs (Dweck, 1999; Dweck & Leggett, 1988), and self-determination theory (Deci & Ryan, 1985;

Ryan & Deci, 2000) to identify subgroups of young people with varying motivational patterns in the physical activity domain. Chian & Wang (2008) conducted cluster analysis using achievement goal theory, perceived motivational climate, sport ability beliefs, and self-determination theory frameworks. The present study have examined distinct profiles among the secondary students in their achievement goal orientations and cognitive self-management using cluster analysis.

Achievement Goal Orientation

A prominent feature in motivation theory is the role of goals. Achievement goal orientation is a general achievement motivation theory, which refers to the fact that a type of goal towards which a person is working has a tremendous impact on how they pursue the goal. Achievement goals are commonly defined as the purpose of an individual's achievement pursuits (Dweck and Leggett, 1988). Numerous theoretical conceptualisations of achievement motivation have been proffered, but the following have emerged as the prominent theories: the achievement motive approach (Atkinson, 1974, McCleland, 1953), the test anxiety approach (Mandler and Sarason, 1952; Spielberger, 1972), the attributional approach (Weiner and Kukla, 1970), the self-worth approach (Covington and Beery, 1976), and the achievement goal approach (Dweck, 1986; Nicholls, 1984). The traditional achievement goal orientation theory was proposed by Nicholls, (1984). The 2x2 achievement goal orientations has four types of goal orientations: mastery approach, mastery avoidance, performance approach and performance avoidance. With the mastery approach, the focus is on the intrinsic value of learning. Students are geared towards the development of new skills, mastering the skill and understanding the content. Learning goals become a part of the learning process and are absolute. The students who are aiming towards the mastery approach are more likely to be more task-involved and if they fail they are not threatened (Ames, 1992). The second approach with goal orientation is the performance approach. The central theme with performance approach focuses on one's ability of doing better than the other students. Harackiewicz & Sansose (1991) indicated that in certain situations performance goals can develop the competence as well. Performance goals focus on the demonstration of competence relative to others, whereas mastery goals focus on the development of competence or task mastery. Performance goals are hypothesised to be linked to a negative set of processes and outcomes, which includes withdrawal of effort in the face of failure, surface processing of study material

and decreased task enjoyment. Mastery- based standards tend to focus individuals on learning, whereas performance based standards tend to focus individuals on performing (Dweck, 1986). Avoidance motivation represents the inherent focus on avoiding aversive object or event, failures and problematic psychological process. These avoiding process include: i) affective process such as anticipatory worry, emotionality, hyper-reactivity to negative feedback (Elliot & McGregor, 1999), ii) perceptual-cognitive process such as enhanced likelihood of threat appraisals, heightened vigilance, adherence to negative information and difficulty in focus (Covington, 1992), and iii) behavioural processes such as striving to ensure that negative outcomes are avoided and selecting easy task in which failure is not possible (Alicke and Sedikies, 2009; Elliot and church, 2002).

Cognitive Self- Management

Many researchers have showed that different goal orientations determine students' cognitive and behavioural reactions as well as academic performance (Ames, 1992; Ames & Archer, 1988; Valle et al., 2003). Cognitive self-management refers to "metacognition in action", which involves how metacognition helps to orchestrate problem solving in action (Idol &Jones, 1990). Cognitive self-management skill is often called executive control of behaviour (Paris, Lipson and Wixon, 1983) which refers to student's abilities and planning before they handle a task and make necessary adjustments and revisions during their work. Ability of the students to form good plans, to use a variety of strategies to revise and visit ongoing performances of executive cognition that helps guide and coordinates thinking (Baker & Brown, 1984). Cognitive self-management has a direct implication on student's performance. Individuals with different goal orientations manifest different motivational response patterns. Individuals who score high levels of metacognitive activity also scored high on learning approach (Schmidt & Ford, 2003}. When thinking skills are lacking poor decision making and planning result. It is an ability to think in abstract terms._ It is the highest stage of intellectual functioning. It is the way of controlling one's self or the ability of individual to control one's self. It includes different dimensions: positive focus, systematic problem solving, task-efficacy, reasonable goal setting, and self-blame.

Purpose of the study

In order to acquire deep understanding of the subject matter and to achieve the desired goal the students need to engage in different cognitive strategies like planning, integrating

information, acceptance of the challenging task, systematic approach to overcome the problems and progress towards the goals. Many researchers have reported that in order to engage in this kind of strategic behaviour, students need to be motivated to invest the required effort (Schunk & Zimmerman, 1989). The personal characteristics also act as predictors of success. Many researchers have been conducted on identifying motivational profiles. Several studies have been conducted on the relationship between goal orientations and cognitive variables. However, profiles based on goal orientations and cognitive attributes among the secondary students in Asian perspective was not conducted so far. Specifically, this study will address the research questions: What are the different cluster profiles of the secondary students based on their goal orientations and cognitive self-management?

Methodology

Subjects and procedure

In this study 405 secondary school students studying in class IX were selected by simple random sampling technique. Before the start of data analysis the cases were verified for missing data, outliers and extremes. The sample consisted of 405 secondary school students (N=405) of which 174 students were girls (43.00%) and 231students were boys (57.00%). 22.47 % of the students were in government schools, 39.01% in government aided schools and 38.52 % in private schools.

Measures

Achievement Goal Orientation scale (AGOS). The scale used to measure the goal orientations among the students was constructed and validated by the investigator. The tool developed by Was (2006) has 2x2 framework of the achievement goal orientations: mastery approach, work avoidance, performance approach, and performance avoidance. Following the conceptualisation by Nicholls et al'; {1989) three types of achievement goal orientations were assessed using AGOS. The questionnaire measures mastery approach, performance approach and work avoidance. It consists of 28 items and was based on a 3-point Likert scale with the options agree, somewhat agree and disagree. The content and construct validity of the tool was established. The reliability of the tool was established by test-retest method (product moment correlation coefficient= 0.77). The Cronbach's alpha coefficient for the mastery approach, performance approach and work avoidance were 0.82, 0.80 and 0.84 respectively.

Cognitive self- Management Test. The instrument considered to measure cognitive self- management was adapted tool developed by Rude (1980). The items were modified to suit the secondary school students. The tool was later subjected to content validity. The test-retest reliability correlation value was 0.81. There are 26 items measuring the sub-constructs: positive focus, systematic problem-solving, task-efficacy, self-blame and reasonable goal setting. The questionnaire has both positive and negative statement with a 3-point Likert scale-always, sometimes and never. The Cronbach's alpha coefficient for the sub- constructs positive focus, systematic problem-solving, task-efficacy, self-blame, and reasonable goal setting were 0.82, 0.78, 0.81, 0.79 and 0.85 respectively.

Results

Descriptive and correlational statistics

Table 1 displays the descriptive statistics and Pearson correlation coefficients of the variables: mastery approach, performance approach, work avoidance, positive focus, systematic problem solving, task-efficacy. self-blame, and reasonable goal setting. To ensure that there were no multidimensionality among the variables under study, the inter-correlation matrix was analysed. All the inter-item correlation coefficient lies below 0.6. The mean value shows that students have high mastery approach, task- efficacy, and systematic problem solving skill. The sample showed low performance approach. The students had moderate task-efficacy and systematic problem solving skill.

Table 1. Descriptives and Zero- Order Correlations Coefficients among the Measured Variables

	Variables	M(SD)	1	2	3	4	5	6	7	8
1	Mastery approach	2.41 (0.36)								
2	Performance approach	1.54 (0.27)	-.110·							
3	Avoidance goal	2.07 (0.34)	.113•	.469**						
4	Positive focus	2.23 (0.29)	-0.01	.214**	.283°*					
5	Systematic problem solving skill	2.46 (0.40)	0.069	0.03	-0.024	0.052				

6	Task efficacy	2.57 (0.37)	.446..	-.141..	-0.03	-0.057	_254**			
7	Reasonable goal setting	1.60 (0.41)	-.207**	-0.081	-.142**	-0.062	-.14s**	-.282**-		
8	Self-blame	1.77 (0.38)	-0.094	-.397..	-.323••	-.244**	0.021	-0.010	.266**	-

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Cluster Analysis

A cluster analysis with three goal orientations and variables in cognitive self-management was conducted to identify the different profiles among the secondary school students. The non- hierarchical or k- means clustering technique was used in this study. In contrast to the hierarchical clustering techniques, non-hierarchical procedures do not involve tree-like construction process. Instead. They assign objects into clusters once the number of cluster is specified (Hair et al., 2009). The k-means clustering was selected based on two reasons. Firstly, k-means clustering technique is suitable for large sample size (N>lS0) as they do not require the calculation of similarity matrices among all the observations, but instead similarity of each observation to the cluster centroid. Secondly, this method directly works on the raw data, unlike the hierarchical agglomerative methods. The iterative process of classification minimises the variance within each cluster, ensuring maximum homogeneity within the cluster and heterogeneity among the clusters. In this technique several analyses are sometimes required which provides the most interesting results for interpretations(Aldendeferfer & Blashfield, 1984).

k-means clustering is intensely affected by the outliers. As all the observations were already screened for the outliers, it was proceeded with the transformation of raw scores into the standardized z- scores. All the variables were converted into z- scores and k-clustering technique was run with 10 iterations. The results showed three cluster solution. The three different group of students with different profiles in goal orientations and cognitive self-management could be clearly differentiated. Further, to confirm the validity of the three cluster solution, the F ratios that describe the significant differences between the clusters were computed and found statistically significant differences among the clusters. Hence, it was

decided to use three cluster solution. The Table 2 shows the descriptive statistics of the three cluster solution and the one-way ANOVA for the three distinct clusters is showed in Table 3.

Table 2. Cluster Means, Standard Deviations, and Z Scores for the Three Cluster Solutions

	Cluster 1 (N1=146)			Cluster 2 (N=lll)			Cluster 3 (N=148)		
	Mean	SD	z	Mean	SD	z	Mean	SD	z
1. Mastery approach	2.11	0.29	-0.83	2.53	0.33	0.33	2.62	0.22	0.57
2. Performance approach	1.75	0.24	0.79	1.56	0.22	0.09	1.36	0.19	-0.67
3.Avoidance Goals	2.03	0.26	-0.13	2.38	0.32	0.9	1.89	0.26	-0.54
4. Positive focus	2.1	0.3	-0.16	2.41	0.28	0.58	2.16	0.24	-0.28
5. Systematic problem solving skill	2.46	0.42	-0.39	2.31	0.37	-0.02	2.62	0.34	0.39
6. Task efficacy	2.65	0.31	-0.84	2.25	0.33	0.22	2.82	0.2	0.66
7. Reasonable goal setting	1.79	0.37	0.47	1.38	0.36	-0.51	1.56	0.4	-0.08
8. Self-blame	1.89	0.36	0.31	1.45	0.28	-0.84	1.9	0.32	0.33

Table 3. Cluster differences among the cluster variables

Variables	Sum of Squares	Mean Square	F	$\underline{p}$	$\underline{\mu}^2$
1. Mastery approach	21.321	10.660	137.567	.000	.406
2. Performance approach	9.945	4.972	104.482	.000	.342
3. Avoidance Goals	15.846	7.923	101.442	.000	.335
4. Positive focus	4.493	2.247	29.885	.000	.129
5. Systematic problem solving skill	7.229	3.614	25.374	.000	.112
6. Task efficacy	24.107	12.053	152.486	.000	.431
7. Reasonable goal setting	10.880	5.440	37.239	.000	.156
8.Self -blame	15.723	7.861	74.474	.000	.270

At df (2.402), p <.01

The Figure 1 depicts the distinct three clusters. Cluster 1 was labelled as the "Performance approach & moderate cognitive self- management" group. There were 146 participants in this cluster (36.04%). The characteristics of this cluster were they had high

performance approach, very low mastery approach, and low avoidance goals. These students have considerably high reasonable goal setting compared to the other two clusters. The overall cognitive self- management is moderate among the cluster 1 profile. This cluster was called as performance approach & high cognitive self- management cluster. The second cluster had distinctively very high avoidance goals and low cognitive self- management. These students had considerable performance approach and positive focus. This cluster was called as avoidance goals & low cognitive self- management group which had 111 participants (27.41%). The final cluster was considered as "Mastery approach &high cognitive self-management" group. There were 148 participants (36.54%) in this cluster. The characteristics of this cluster were they had high mastery approach and high cognitive self-management. These students had high task- efficacy, systematic problem solving skill and self- blame compared to the other two clusters.

Figure 1. The three distinct Cluster profiles identified by k- means clustering analysis
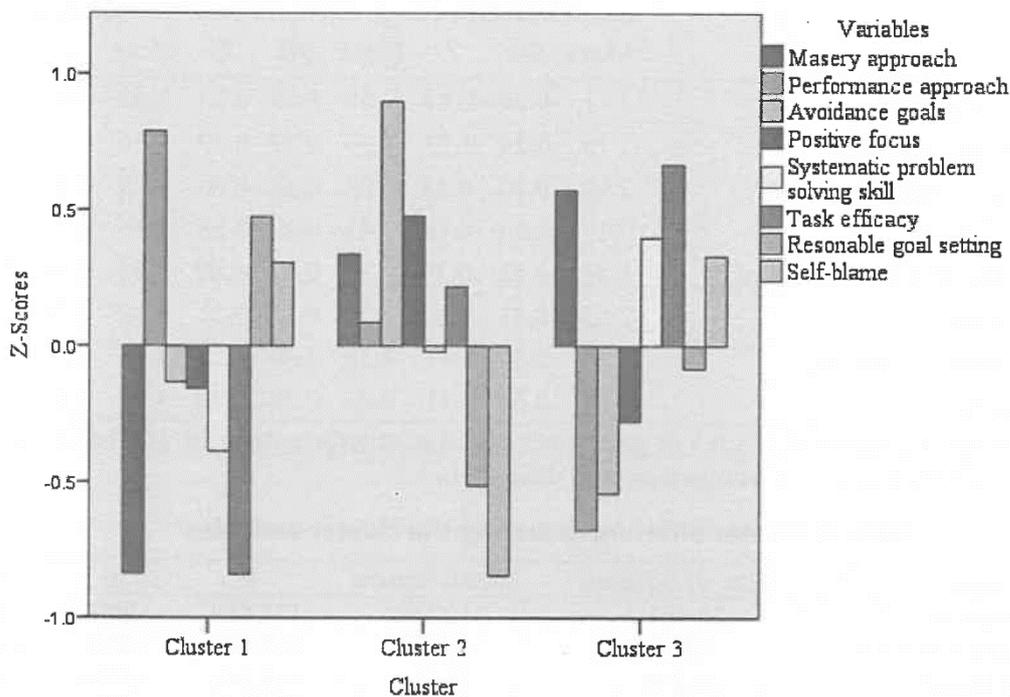
Findings

The mean, standard deviation, and correlations between the key variables of the overall sample is presented in the Table 1. Overall, the participants had high mastery approach, task-efficacy and problem solving skill. They had moderate avoidance goals and low performance

approach, reasonable goal setting and self- blame. The purpose of the study was to identify the distinct clusters among the students in the key variables. Non- hierarchical cluster solution was used in this study and the results of the present study showed that there are three clusters among the secondary school students with distinct achievement goals and cognitive self- management profiles. The three clusters were labelled as i) Cluster 1- Performance Approach & Moderate Cognitive Self- Management, ii) Cluster 2- Avoidance goals & Low Cognitive Self- Management and, iii) Cluster 3- Mastery Approach & High Cognitive Self- Management.

The Table 3 shows the cluster composition and the descriptive statistics of the three clusters across all the key variables. The cluster 1 was called as performance approach & moderate cognitive self- management based on the mean and z- scores. Cluster 1 consisted of 146 students (N= 146, 36.04%). The z- score showed this cluster had very low mastery-approach and low avoidance golas. This agreed with the research findings of Wang (2001) which showed a cluster profile with high performance/low mastery approach among the polytechnic students. However, the present study results vary from the research findings of Liu and her colleagues (Liu et al., 2009) which showed the profiles in terms of high mastery/ high performance and low mastery/ low performance. The present study categorises student profiles based on achievement goals and cognitive self- management unlike the other two studies. The second cluster was characterized as avoidance goals& low cognitive self- management. This group of students (N=lll, 27.40%) had very low performance- approach and low mastery-approach and had better positive focus but very low reasonable goal setting and self- blame. The findings of Roebken {2007) showed that three cluster solution with the first cluster consisted of undergraduate students with an above average mastery and performance and a low performance goals. The third cluster consisted of N= 148 {36.54%) and these students had very high mastery- approach, very low performance- approach and avoidance goals characteristics, This cluster showed high cognitive self- management with high mean in task-efficacy, systematic problem-solving, and self- blame. However, these students had very low positive focus and reasonable goal setting. The cluster profile agreed with the findings of Middleton & Midgley {19970 which confirmed that students did not have one single goal orientation, but rather various goal orientations at different levels. The different goal orientations need not be considered complimentary or opposites. Meece and Holt (1993) showed that students can be high in mastery as well as performance approach goals. Valle et al., (2003) acknowledged

students can pursue mastery, performance, or work- avoidance orientation simultaneously. Individuals with multiple goal orientations manifest different motivational and behavioural response patterns. Individuals who score high on learning (mastery) goal orientations tend to perceive difficult task as challenging not threatening (Elliot & McGregor, 2001), set high performance goals (Lee, 1989), engage in high levels of metacognitive activity (Schmidt & Ford, 2003) and perform well (Schmidt & Ford, 2003).

Discussion

These study show potential implications for the teachers to understand that student will have mixture of goal orientations. The study had examined the goals and cognition. Given that the students do pursue multiple goals, it is very important to understand to what extent each goal orientation is high, moderate or low among the students. So, the teachers should have knowledge of how the goal orientations are developed, the factors that promote mastery approach, and the classroom climate which facilitate mastery approach and cognitive strategies.The results showed comparable number of students in cluster 1 (N= 146) and 3 (=-148). The students who prefer avoidance goals had low cognitive self- management (N=111). The students with cluster 3 characteristics tend to be under-achievers and will set low goals for themselves, and perform poorly. The profile clearly depicts that these students attribute their failures to external factors rather that internal factors. These students were mostly related to work withdrawal behaviours and have low- motivational level to engage and complete the task. The present study confirmed that students with high mastery approach also had relatively high cognitive self- management. To encourage mastery approach in the classroom, teachers should practice "TARGET" principles, which was originally proposed by Ames (1992) to increase mastery goal structures in the classroom. TARGET is an acronym of task, Authority, Recognition, Grouping, Evaluation and Time (Deemer, 2004). In school and in learning settings, the motivation enhancement is often related to extrinsic incentives rather than developing intrinsic motivation or internalization of the reinforced behavior. The motivational component is linked to the student's cognitive engagement, self- efficacy and academic performance. Students who believed they are capable are more likely to integrate cognitive strategies in attaining academic success. Teaching students about the self- regulatory and cognitive approaches to apply in their academics will be more influential in the academic performance of the students.

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Research Article

Metacognition for Learners' Accomplishment

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ABSTRACT

The foremost objective of the study is to fathom the role of Metacognition for enhancing Mathematics Achievement. The sample consisted of 977 students who are studying XI standard in Villupuram District, Tamil Nadu The system of the study is descriptive in approach, synchronic in nature. It is a cross sectional study, survey type in application, applied systematic random sampling technique to collect the data. Tools used were Metacognitive Inventory constructed and standardized by the investigator and Mathematics Achievement measured by the Mathematics mark obtained by the sample in the State Board Public Examination. The findings revealed that the Metacognition plays a chief role for enhancing Mathematics Achievement of the students.

Keywords: Metacognition, learning achievement, self-regulated learning, cognitive strategies, academic performance

INTRODUCTION

Mathematics is one of the subjects needed to learn at schooling in order to fulfill skillful students. It is important for them to pursue higher education, reaching their dreams, using it into daily life, and facing multi challenges of life both simple and complex one. Students have to learn in order to become a better thinker. Lawson (1974) stressed that schooling system is not meant to teach facts and concepts of knowledge domain only, but it's more important to help students in gaining thinking skills. A classroom is a miniature society wherein there are various categories of students. These students differ from one another in a variety of ways, some of which are utmost importance as far as teaching and learning which decide his achievement. Mathematical learning should be designed to grow cognitive skill and to improve ability and develop students' inner potencies. Renner and Philips (Trifone, 1987) believed that

students should be given opportunities to develop their thinking ability as a basis for developing intellectuality.

SCOPE OF THE STUDY

Mathematics plays a key role in shaping how individuals deal with various spheres of private, social and civil life. The need for mathematics in everyday life and in the workplace has never been greater and will continue to increase (NCTM, 2000). The new workforce should have problem solving skills, such as absorbing new ideas, adopting to change, coping with ambiguity, and perceiving patterns. For a country to be a leader in the high-tech global economy, it needs to invest in the education of well-trained mathematicians (National Commission on Excellence in Education, 1983).

New applications and theories have given emphasis to instructional methods that play an important role in developing the learning of mathematics. Documents such as those produced by the National Council of Teachers of Mathematics (NCTM, 1989, 1991 & 1995) and the National Research Council (NRC, 1989) suggest that the traditional mathematics instruction has been challenged by the changing expectations of the skills and knowledge of workers, and therefore, mathematics instruction should shift from concentrating on the products to the learning processes that comprise learning strategies, planning, monitoring, evaluation and reasoning. In other words effective mathematics instruction gives special attention to teach students how to learn and how to reason and evaluate their learning and solution processes.

It is therefore, important for the parents and the teachers to understand the nature of the students' mind and its functioning in different styles of learning and thinking. Research has demonstrated that students are capable of mastering new skills if they are taught through instructional methods that complement their hemispheric preference. Because of metacognition, as students become more skilled, they gain confidence and become more independent as learners. Independence leads to ownership as students realize they can pursue their own intellectual needs and discover a world of information at their fingertips. Metacognition has been linked to a wide variety of positive academic outcomes for students, such as better grades and performance on tests of intelligence. Designing metacognitive activities that focus on both cognitive and social development is a theoretical and practical

challenge. The balanced approach to metacognition concerns itself with many aspects of student development, ranging from academic competence to knowledge about the 'self' as learner.

It is hoped that findings of the this study will contribute to further understanding of the role of metacognition for improving level of achievement in mathematics. Moreover this will help educators for an effective and efficient pedagogical strategy or model for improving learning mathematics with understanding.

OPERATIONAL DEFINITION OF THE TERMS

Metacognition

The term metacognition refers to the act of thinking about thinking, or the cognition of cognition. It is the ability to control our own thoughts. Although it is a complex construct, indeed it is the knowledge and regulation of cognitive phenomena which means, control of our own thoughts. Metacognition includes the ability to control, 1) person variables (knowledge about one's self, and others' thinking), 2) task variables (knowledge that different types of tasks exert different types of cognitive demands), and; 3) strategy variables (knowledge about cognitive and metacognitive strategies for enhancing learning and performance).

Mathematics Achievement

Achievement in Mathematics means the knowledge, understanding and the skills in mathematics which a learner acquires by undergoing a prescribed course over a period of time in school and has been assessed through Examination.

OBJECTIVES OF THE STUDY

► To explore the influence of Metacognition on Level of Achievement in Mathematics.

► To study the level of Achievement in Mathematics with respect to Dimensions of Metacognition

HYPOTHESES

• There is no significant association between level of Mathematics Achievement and Level of Metacognition

• There is no significant difference between level of Mathematics Achievement with respect to Dimensions of Metacognition

DESIGN OF THE STUDY

Research design is a catalogue of the various phase facts relating to the formulation of research effort. The system of the study is descriptive in approach, synchronic in nature. It is a cross sectional study, survey type in application, applied systematic random sampling technique to collect data from the field.

TOOLS USED FOR THE STUDY

- **Metacognitive Inventory** constructed and standardized by the investigator
- **Mathematics Achievement** was measured by the mathematics mark obtained by the sample in the State Board Public Examination for the year 2011-12.

ANALYSIS OF THE DATA

There is no significant association between level of Achievement in Mathematics and level of Metacognition

Table: 1 Association between Level of Achievement in Mathematics and Level of Metacognition

Level of Metacognition	Level of Achievement in Mathematics			Total	Chi'-square value	P value
	Low	**Moderate**	**High**			
Low	89	114	54	257		
	(34.6)	(44.4)	(21.0)			
	[33.6]	[24.4]	[22.1]			
Moderate	128	221	122	471	15.661	0.004**
	(27.2)	(46.9)	(25.9)			
	[48.3]	[47.2]	[SO.OJ			
High	48	133	68	249		
	(19.3)	(53.4)	(27.3)			
	[18.1]	[28.4]	[27.9]			
Total	**265**	**468**	**244**	**977**		

Note: 1. The value within ( ) refers to Row Percentage

2. The value within [ ] refers to Column Percentage

3. ** denotes significance at 1% level

Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance. So there is significant association between level of Metacognition and level of Achievement in Mathematics. Hence based on row percentage, students who have scored High level of Achievement in Mathematics are influenced by High level of Metacognition.

2. There is.no significant difference between level of Achievement in Mathematics with respect to Dimensions of Metacognition

Table: 2 Difference between Level of Achievement in Mathematics with respect to Dimensions of Metacognition

Dimensions of Metacognition	Level of Achievement in Mathematics	Mean	SD	F value	P value
Planning	Low	33.70"	3.76	4.194	0.015*
	Moderate	34.49b	3.82		
	High	34.49b	3.74		
Logical Thinking	Low	32.58ab	4.26	3.840	0.022*
	Moderate	33.1lb	4.14		
	High	32.23a	4.24		
Creative Analysis	Low	30.36	5.00	0.837	0.433
	Moderate	30.73	4.83		
	High	30.91	4.96		
Problem Solving	Low	30.29a	5.24	10.504	0.000**
	Moderate	31.54b	4.59		
	High	32.16b	4.44		
Evaluation	Low	32.28a	4.82	4.389	0.013*
	Moderate	33.30b	4.45		
	High	33.1-f	4.69		
Metacognition	Low	159.22a	19.32	4.362	0.013*
	Moderate	163.18b	17.66		
	High	162.96b	18.33		

Note: 1. ** denotes significance at 1% level

2. * denotes significance at 1% level

3. Different alphabet between type of school denotes significant at 5% level of significance

using Duncan Multiple Range test Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance. Hence there is significant difference between level of Achievement in Mathematics with respect to Problem Solving.

Since P value is less than 0.05, the null hypothesis is rejected at 5% level of significance. Hence there is significant difference between level of Achievement in Mathematics with respect to Planning, Logical Thinking, Evaluation and Metacognition. Since P value is greater than 0.05, the null hypothesis is rejected at 5% level of significance. Hence there is significant difference between level of Achievement in Mathematics with respect to Creative Analysis.

Hence it is evident that Planning, Logical Thinking, Problem Solving, Evaluation and Metacognition influence the level of Achievement of the students in Mathematics.

FINDINGS OF THE STUDY

Only 25% of the students have high Metacognition, and the remaining 75% comprises of moderate and low level of Metacognition. It shows that almost two third of the students lagging on Metacognition. The dimensions of Metacognition are Planning, Logical Thinking, Creative Analysis, Problem Solving and Evaluation. The dimensions of Metacognition namely Planning, Logical Thinking, Problem Solving and Evaluation contribute for the enhancement of Mathematics Achievement. Only 25% of the students have high level of Achievement in Mathematics and the remaining 75% comprises of moderate and low level of Achievement in Mathematics. Students who have scored high level of Achievement in Mathematics are influenced by high level of Metacognition. Hence the study dogmatically proved that the Metacognition plays a chief role for enhancing Mathematics Achievement of the students.

LIMITATIONS OF THE STUDY

- The study is confined to Villupuram District of Tamilnadu.
- The study is contemplated only on students who are studying in XI standard of mathematics group only.
- The study is limited to the students who are studying in urban, semi-urban, and rural region.

- The study is limited to the students studying in three types of school namely Government, Aided and Matriculation schools.

CONCLUSION

Mathematics is living subject which seeks to understand patterns that permeate both the word around us and the mind within us. It is therefore, important for the parents and the teachers to understand the nature of the students mind and its functioning in different styles of learning and thinking. They can help students to improve their learning by incorporating metacognitive strategies into classes, and by helping them to become aware of own thinking and monitor their learning strategies. This study has demonstrated that students are capable of mastering new skills if they are taught through instructional methods. As students become more skilled at using metacognitive strategies, they gain confidence and become more independent as learners.

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Research Article

Emotional Maturity of Higher Secondary School Students of Madurai District

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ABSTRACT

The present study aims to find out the emotional maturity of higher secondary school students of Madurai district. Survey method was used to find out the emotional maturity. A sample of 200 students selected randomly were studied. The data were collected by using questionnaire as an instrument. t-test and ANOVA were applied to test the hypotheses in order to find out whether there is any significant difference between the mean scores of emotional maturity among higher secondary school students on the basis of demographic variables. Results revealed that male and female higher secondary school students do not differ significantly in their emotional maturity, rural and urban higher secondary school students differ significantly in their emotional maturity, government and private school students do not differ significantly in their emotional maturity. The school curriculum must include the programmes required to enhance the emotional maturity of students.

Keywords: Emotional maturity, higher secondary students, adolescent development, emotional stability, Madurai district

INTRODUCTION

Human beings aspire for emotions. When it is pleasant, we welcome it and when it i? unpleasant, we reject it. People carry heavy load of emotions due to unpleasant events in their ever day life. Carrying heavy load of emotions state anger or fear creates chronic tension which may case psychosomatic problems. Many people are not aware of their heavy load of emotions and the consequences of it. It may affect their adjustment profoundly.

Psychologists differ considerably in their emphasis on the role of maturation in the development of emotional behaviour. Gesell believed that maturation is responsible for the

gradual evolution of emotional expression in infants and children. He strongly disagreed with the view that emotional development is largely a phenomenon of social stimulation.

For Gesell, as the individual becomes more adequate physically, intellectually, and socially through the development of his capacities, there is a concomitant emotional growth. Outside control gradually disappears as the child's emotions mature, and ultimately the emotionally mature individual is able to function on the basis of inner controls, in our culture growing un- requires that the child behaves in a certain way, expresses his anger in a controlled manner, and learns a number of other culturally approved expressions of emotion. Thus, a considerable amount of our emotional behaviour is learned and related to a specific culture.

Emotional maturity is always relative. A five-year-old child has emotional maturity if he is capable of the emotional behaviour we judge fit for a five-year-old. Emotional maturity, however, develops throughout life. It is also a form of maturity from which one can regress most quickly. The child becomes more emotionally mature as the parent permits him to accept responsibilities and becomes independent and self-sufficient.

Jersild presents one of the most comprehensive lists of the stages involved in the child's moving toward maturity in the emotional area.

1. A change from being a creature who at first receives much, gives little, to one who is capable of giving as well as of receiving, and capable of learning to get enjoyment from giving.

2. Development of capacity to identify with a larger social group, and the ability to participle emotionally in the fortunes of the larger group.

3. Development from the status of being the child of family to the status ultimately, of being able to have children one's own find along with this development a capacity to exercise the feeling and attitudes involved in being parent psychologically, whether or not one is a parent biologically

4. Progressive sexual developments and the capacity after puberty to enjoying mature sex experience.

5. An increased capacity for bearing the inevitable sufferings and pains connected with life and growth, without feeling abused.

6. An increased capacity for sympathy and compassion as one, assimilates the meaning for self and others of the joys and vicissitudes of life.

Emotional maturity, then, is not a state in which all problems are solved but, instead, is a continualal process of clarification and evaluation, an attempt to integrate feeling, thinking and behaviour.

Need And Significance of The Present Study

In the present circumstances, youth as well as children are facing difficulties in life. These difficulties are giving rise to many psycho- somatic problems such as anxiety, tensions, frustrations and emotional upsets in day life. So, the study of emotional life is now emerging as a descriptive science, comparable with anatomy. It deals with an interplay of forces with intensities and quantities. Available tests are crude and measure chiefly the degree of dependence. But this test measures the different aspects of emotional maturity. As self acceptance is an important aspect of maturity says Wenkart, and it must be preceded by acceptance from others.

Actually, emotional maturity is not only the effective determine of personality pattern but it also helps to control the growth of adolescents' development. The concept "Mature" emotional behaviour of any level is that which reflects the fruits of normal emotional development. A person who is able to keep his emotions under control, who is able to broke delay and to suffer without self-pity, might still be emotionally stunned and childish. Morgan stated account of the full scope of the individuality, powers and his ability to enjoy the use of his powers.

According to Walter D.Smitson emotional maturity is a process in which the personality is continuously striving for greater sense of emotional health, both intra-personally.

Kaplan and Baron elaborate the characteristics of an emotionally mature person, says that he has the capacity to withstand delay in satisfaction ofneeds. He has ability to tolerate reasonable amount of frustration. He has belief in long-term planning and is capable of delaying or revising his expectations in terms of demands of situations. An emotionally mature child has the capacity to make effective adjustment with himself, members of his family, his peers in the school, society and culture. But maturity means not merely the capacity for such attitude and functioning but also the ability to enjoy them fully.

The concept of maturity has not received a great deal of explicit attention in the literature. Delineation of libidinal development has been yielded the important formulation. Of the "Genital level" and "Object-interest (Freud, 1924)". Recent emphasis on the conflict between the regressive, dependents, versus the progressive, productive forces in the personality has directed interest toward the more detailed nature of maturity.

Emotional Maturity implies controlling your emotions more willingly than letting your emotions to give you the orders. Emotional intelligence makes an important part of life, together with intellectual intelligence and relationship intelligence. Such intelligence can help one to assess emotional maturity and emotional freedom. How well do you tackle any relationship, is a major discernible factor to check your level of emotional maturity.

Any relationship you have with others expresses your emotional intelligence because you put across your communication skills, your commitment and your integrity to it. Your emotional maturity depicts your capacity to manage and to check your emotions, to evaluate others' emotional state and to persuade their judgment and actions. A person's emotional maturity is very much influenced by his/ her relationship history.

So it is essential to study about the emotional maturity of higher secondary students which has a direct influence on the education and personality development of the individuals. Hence the present study, "EMOTIONAL MATURITY OF HIGHER SECONDARY SCHOOL STUDENTS OF MADURAI DISTRICT."

OBJECTIVES

The following objectives are formulated for the present study.

❖ To find out the level of emotional maturity of higher secondary students.

❖ To find out whether there is any significant difference in the emotional maturity of higher secondary students with respect to their gender, location of school and Type of school.

HYPOTHESIS

❖ Emotional Maturity of higher secondary students is high.

❖ There is a significant difference in the emotional maturity of higher secondary students with respect to their gender, location of school and Type of school.

METHODOLOGY

Methodology deals with how to conduct the research and also explains the sampling design, tools description and method of data collections.

The sample of 200 higher secondary students was selected according to the principles of random sampling technique. Various basis of stratification such as gender, locality and Type of school were taken into consideration. In this present study, the researcher used normative survey method.

Statistical Techniques Used

Descriptive Analysis:

The means, standard deviations of the entire sample are computed.

Differential Analysis:

The 't' test is used to determine whether the performance of two groups is significant or not.

ANALYSIS AND INTERPRETATION

Table 1

Showing the Mean, Standard Deviation of the sub samples in relation to higher secondary school students emotional maturity

Variable	Groups	N	Mean	Standard Deviation
Entire	Total	200	126.77	15.13
Gender	Male	62	127.79	12.66
	Female	138	126.31	16.13
Locality	Rural	33	122.67	6.44
	Urban	167	127.58	16.20
Type of school	Government	90	127.08	18.00
	Private	110	126.52	12.38

Hypothesis 1 : Emotional Maturity of higher secondary school students is high.

Table 1 shows Mean, SD of higher secondary students emotional maturity. The result reveals that, students have average emotional maturity. In the case of male and female, male

(127.79) scored higher mean value than female (126.31). So, male have high emotional maturity than female. In the case of rural and urban, urban (127.58)" scored higher mean value than rural (122.67). So, urban area students have high emotional maturity than rural. In the case of Government and Private, Government school (127.08) scored higher mean value than private (126.52). So, Government higher secondary school students have high emotional maturity than private school students.

Table 2

Showing Mean, SD and t-test for emotional maturity among higher secondary school students on the basis of gender

GENDER	N	MEAN	SD	t-VALUE	LEVEL OF SIGNIFICANCE
Male	62	127.79	12.66	0.699	Not Significant
Female	138	126.31	16.13		

Hypothesis: There is significant difference between the mean scores of emotional maturity among higher secondary school students on the basis of gender.

The calculated t-value (0.699), which is not significant, confirms that there is a no significant difference between emotional maturity among higher secondary school students on the basis of gender. Hence the stated hypothesis is rejected. To sum up, male and female higher secondary school students do not differ significantly in their emotional maturity.

Table 3

Showing Mean, SD and t-test for emotional maturity among higher secondary school students on the basis of Locality

LOCALITY	N	MEAN	SD	t-VALUE	LEVEL OF SIGNIFICANCE
Rural	33	122.67	6.44	2.923	Significant
Urban	167	127.58	16.20		

Hypothesis: There is significant difference between the mean scores of emotional maturity among higher secondary school students on the basis of locality.

The calculated t-value (2.923), which is significant at 0.01 level, confirms that there is a significant difference between emotional maturity among higher secondary school students on the basis of locality. Hence the stated hypothesis is accepted. To sum up rural and urban higher secondary school students differ significantly in their emotional maturity.

Table 4

Showing Mean, SD and t-test for emotional maturity among higher secondary school students on the basis of type of school

TYPE OF SCHOOL	N	MEAN	SD	t-VALUE	LEVEL OF SIGNIFICANCE
Government	90	127.09	18.00	0.250	Not Significant
Private	110	126.52	12.38		

Hypothesis: There is significant difference between the mean scores of emotional maturity among higher secondary school students on the basis of type of school.

The calculated t-value (0.250), which is not significant, confirms that there is no significant difference between emotional maturity among higher secondary school students on the basis of type of school. Hence the stated hypothesis is rejected. To sum up government and private school students do not differ significantly in their emotional maturity.

Major Findings

- Male and female higher secondary school students do not differ significantly in their emotional maturity.
- Rural and urban higher secondary school students differ significantly in their emotional maturity. Urban higher secondary school students have high emotional maturity.
- Government and private school students do not differ significantly in their emotional maturity.

RECOMMENDATIONS

- ❖ All the educational efforts made throughout the world redirected towards enhancement of emotional maturity. This is especially important in a developing country like India.

There are general opinions that the standards of education are falling down. The society seems to have lost confidence in the work accomplished by teachers. Social prestige attached to teaching profession, which was once considered to be a noble profession is slowly disappearing. So the teachers have to develop a more favourable attitude towards their work and perform their work with a missionary zeal.

❖ The best way to make the dreams of Indian citizens to come true is to awaken the interests of students and to impart education in line with their interests. Students should be made to be fully aware of the need to be involved highly in studies. They must be made to be attentive in the class and be encouraged to develop better emotional maturity. The learning materials presented to the students should be made more meaningful, interesting, attractive and useful.

❖ In school, the classroom activities should be made more challenging. Educators can think in line with level of students on learning and emotional maturities for better instruction in class rooms.

❖ Ministry of education both at the centre and State and educational administrators at various levels should take necessary steps to provide adequate facilities like ideal classrooms, appropriate teaching aids, good library, fully equipped laboratory, better play fields, adequate financial assistance, etc., to enhance the emotional maturity of students.

CONCLUSION

The present study made on emotional maturity of higher secondary school students of Madurai district. The findings of the study reveal the present position of higher secondary school student's emotional maturity is average. The future teachers must keep in mind that their valuable time and work creates harmonious nation to provide suitable packages for the higher secondary school students. It was found that there is significant difference between the mean scores of emotional maturity among higher secondary school students on the basis of demographic variables.

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Research Article

Relationship between Test Anxiety and Academic Achievement of Secondary School Students

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ABSTRACT

The present era is an age of anxiety; the school students experience a high level of anxiety. The high expectations of parents, entrusted responsibilities, fear of examinations, competitions in the area of employment, apprehensions regarding one's sociability and peer acceptability create emotional tensions. The academic achievement of school students may influenced by excessive anxiety. A reasonable level of anxiety is seen to motivate them for better performance while excessive anxiety interfaces with their normal work and hinders their progress. The present study targets student's populations, as students are very young and they have not come across such anxious circumstances in life before. As they lack experience it is right to tune those children and train them to face anxious situation in future. It is better to catch them young. Utilising Test anxiety tool developed by Dr.V.P.Sharma (1978) the anxiety of 350 students were identified and also determined how test anxiety affects the academic achievement of secondary students.

Keywords: Test anxiety, academic achievement, secondary students, examination stress, student performance

INTRODUCTION

Parents play a pivotal role towards the bringing up of children. Child rearing is an art, the present nuclear family era is not supporting to view child rearing as an art, and rather it is even more mechanized than a commercial unit. Thus associates further development of anxiety in children from early stage. Role of society in placing anxious demand on children cannot be left unnoticed. Undue demand on children, as result of modernization, living with thy neighbor, all place irrevocable anxiety in children.

In spite of number of factors that could contribute to anxiety in children, the undoubted response or result is only exhibited in the field of academics. The reason is very simple, as the subjects are taught with short term objectives. As these objectives must be realized in a short span the piled up anxiety are vested on children.

Test anxiety is an important dimension in the field of education. A student's ambition can be fulfilled only through his test or performance in school. It is the foundation stage at secondary level and waiting to enter into higher secondary for a better performance in academics. Students are to be identified and counselled specially those fall under low achievement categories. School students especially to the investigator would like to see at the secondary school level whether the two variables Test Anxiety and Academic Achievement are interrelated and weather there is mutual interdependence.

Test Anxiety: A form of state anxiety aroused by the event or prospect of taking a test or examination. Also called examination anxiety

Academic Achievement. "The knowledge attained or skills developed in the school subjects, usually determined by test scores or by teachers", Dictionary of education.

Statement of the problem: The present problem is to determine **"Test Anxiety on Academic Achievement of Secondary School students".**

Research Questions:

Does test anxiety affect the academic achievement of secondary students? Is test anxiety different in boys and girls?

Objectives:

- ❖ To discover the nature of relationship existing between the Test Anxiety and Academic Achievement of secondary school students.
- ❖ To determine the gender difference in test anxiety of secondary students.

Hypotheses:

- ❖ There is no significant relation between Test Anxiety and Academic Achievement among secondary school students.
- ❖ There is no significant difference between boys and girls in respect to their Test Anxiety

Sample of study:

The total sample selected for this study is 350 from Chennai District. The sample represents the population and is of adequate size.

Tool:

A scale measuring the Test Anxiety of secondary students, Test Anxiety scale was developed by Dr.V.P.Sharma (1978) with 25 items. Each statement was stated in the form of situation, having five alternative answers arranged in a hierarchical manner. Coefficient of Internal consistency by split half technique **r= 0.876 and validity** was found to be square root of reliability r= 0.935.

Table showing relationships between Achievement Scores and Test Anxiety of Students

Variables	No.	r-Value	Level of Significance
Test Anxiety & Academic Achievement	350	-0.59	0.05

It is inferred from the table that the calculated r - Value (- 0.59) is greater than table value (.098) at 5% level. Hence the null hypothesis 'there is no significant relationship between the Test Anxiety and their Academic Achievement is rejected. It means there is significant relation between the Test Anxiety and their Academic Achievement, Test Anxiety and Academic Achievement are negatively correlated indicating for every increase in test anxiety academic achievement falls. Thus resulting in alternative hypothesis that is there is significant negative relationship between test anxiety and academic achievement of high school students.

Hypothesis

There is no significant difference between boys and girls with respect to their Test Anxiety.

Table showing difference in Test Anxiety Scores of the Boys and Girls

Variable	Sub samples	N	Mean	SD	t-value	df	Level of significance
Test Anxiety	Boys	162	58.44	16.79	2.15	348	0.05
	Girls	188	54.75	15.17			

Since the calculated "t" -value (2.15) is greater than the table value (1.96) at 5% level of significance, the null hypothesis is not accepted. It is concluded that there is significant difference between the boys and girls in their test anxiety. More over the boys are having more

test anxiety which is revealed through the mean value of boys that is greater than the mean value of girls.
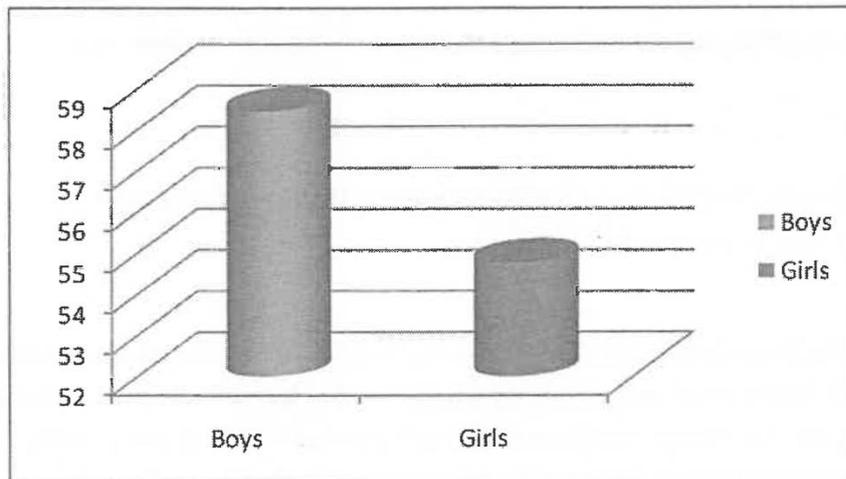
Major Findings

- There is significant negative relationship between test anxiety and academic achievement among secondary school students.
- There is significant difference between boys and girls in test anxiety of secondary school students.

Discussion:

The present -study has elucidated on test anxiety and academic achievement of 350 secondary students drawn from two boards of school. It is evident from the findings that there exists significant negative relationship between the two variables taken for the study namely test anxiety and academic achievement. The research review of Dawood, Eman; Al Ghadeer, Hind; Mitsu, Rufa; Almutary, Nadiah; Alenezi, Brouj {2016) ,Tuncer, Murat; Dogan, Yunu {2015), Macher, Daniel; Paechter, Manuela; Papousek, Ilona; Ruggeri, Kai; Freudenthaler, H. Harald; Arendasy, Martin {2013) supports the result drawn in this current research. The present investigation is according to the ample review collected correlating test anxiety and academic achievement studies investigated by Tempel, Tobias; Neumann, Roland (2014) Karatas, Hakan; Alci, Bulent; Aydin, Hasan {2013), Putwain, David William; Connors, Liz; Symes, Wendy {2010) are supporting the present investigation. Song, Juyeon; Bong, Mimi; Lee, Kyehyoung; Kim, Sung-ii {2015) examined the contribution of other factors towards academic

achievement and it found to be similar to that arrived through the present investigation with respect to additional support as tuition in the present investigation. Dogan, Yunus; Tuncer, Murat (2016) found the existence of gender difference in academic achievement. Song, Juyeon; Bong, Mimi; Lee, Kyehyoung; Kim, Sung-ii {2015) difference in other parents Hsieh, Pei-Hsuan; Sullivan, Jeremy R.; Sass, Daniel A.; Guerra, Norma S. (2012) examined academic achievement based on other determinants such as personal control, self-efficacy, goal orientation, coping strategies, and self-regulation and are found to support the results drawn from the present study.

Implications of the study:

- Meditation and Yoga are used to reduce the level of Anxiety.
- In Government Aided school they should provide practice by means of providing unit test periodically which is not commonly done with government schools. This will prevent the test anxiety. The habit to taking up test will reduce anxiety and also helps students with tips to face exams.
- The pattern of questions and level of difficulty must be similar from the beginning
- Nutrition and health students should take healthy foods. This will increase the brain activity and remembrances.
- The pretests should be conducted in the situations similar to the Board examinations,
- Conducting public or Board examinations in other schools: the students feel uncomfortable to travel some distance to the examination centre. It might also disturb the percentage mark of students. So conducting examinations in the same schools where students are writing will help to reduce the test anxiety.
- The level of Test Anxiety may be reduced by taking home examinations. It may help the student to face the test without any anxiety.
- The level of Test Anxiety can be reduced, through giving counselling to the students.
- The facilities for co- curricular activities should be provided in such a way to reduce the various anxieties of the students.
- Effective efforts should be taken by the parents and school authorities in order to overcome and reduce the level of Test Anxiety
- The students (boys) who come from below poverty level are not guided properly due to illiteracy of the parents.

- Constructive steps should be taken to create a continuous learning environment which will augment the level of Academic Achievement of students. This aspect can be given more importance in all learning situations.

Conclusion:

Test-anxiety had impact on academic achievement. It decreases learning capabilities and hinders excellent academic performance. Test-anxiety decreases motivation towards the ability for attention, concentration and worst, it leads to academic failure. This research finding has found a significant relationship between test-anxiety and academic achievement among high school adolescents in Chennai, Tamil Nadu. Therefore, school and family institutions must assist students in managing their test-anxiety through counseling, relaxation and behavioral techniques. Selected preventive activities can be proposed at high schools on targeted students with academic problems. Specialized intervention tailored to male students is suggested in order to improve male student's academic achievement. Findings of this present research should not be generalized to all high school students, not even to the overall high schools.

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Teaching Style of In - Services Teachers

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ABSTRACT

This research paper is a descriptive study conducted on 300 In-service teachers to find out their teaching Style and the differences in terms of some selected personal variables such as Gender, Location of School and Marital Status. The sample was selected randomly from different schools located in rural and urban areas of Chennai District and Vellore District of Tamil Nadu State. The't-test' results revealed the existence of no significant difference in the Teaching Style with respect to the personal variables.

Keywords: Teaching style, in-service teachers, instructional methods, pedagogy, teacher effectiveness

INTRODUCTION

The Education Commission (1964 -66) begins its report with the sentence "The destiny of India is now being shaped in her classroom". So the primary task of the teacher is concerned with 'man making' namely making of the Indians of tomorrow.

The leaders of the freedom struggle well before India's Independence recognized the significance of education as an instrument of national development. Mahatma Gandhi visualized education as a basic tool for the development of consciousness and reconstruction of society. He laid emphasis on the all-round development of the child by drawing out the best in child and man - body, mind and soul. This approach includes development of a national outlook, use of environment as a source of knowledge, understanding, integration of three H's- Head, Heart and Hand.

This century is expected to be the century for 'liberation of human mind' and is expecting great advances in science and Technology resulting in a new approach to life and quality of life. The term 'Learning has to focus on techniques conducive to' learning to learn'.

The challenge before the society is to continue to redefine the role of teachers parents and planners of the educational system.

The greatest problem facing the world today is the deterioration of human values and practices. The child of today does not know the difference between right and wrong or good and bad. The youth of today do not know how to live together and how to cater to the needs of others in society. With the advent of nuclear families. the relationships between and among elders and the young generation, parents and children, teachers and students etc. have been diminished which led to the development of negative relationship unhealthy and unsystematic relations and practices. The problem of adjustment is considered as the most important barrier to human development and strengthening of human relationships. Hence in order to create a human society and to inject the good values and virtues in children, the teachers and parents should strive hard.

Objectives of the present investigation

To examine the difference in the Teaching Style of In service teachers owing to the differences in Gender, Location of School and Marital Status.

Need and Significance of the Present Study

Education is very important for each which contributes to natural and harmonious development of man's innate power and brings about complete development of individually. We have yet not achieved United Nations Millennium Development Goal of achieving Universal Primary Education in India as to be achieved by 2015.

A good teacher is a conscious, vibrant member of society. He is quite aware of his solemn, sincere duties towards his country. If he keeps himself well informed of, and enriched with adequate knowledge, he can serve his country meticulously well. As such he can justly be held as genuine harbinger of national progress.

The development of a country depends to a great extent on the quality of the teacher education program. A nation is built by citizens who are moulded by the teacher. A success of educational system revolves around the abilities of the teacher. Today teaching profession is advanced innovation in the field of educational technology and psychological principles are substantive in this field. So the present study is important in the field of Education. The school teachers expected· to follow objectives based instruction approach with deep knowledge of content having high self-efficacy and teaching aptitude. Hence the study entitled **"Teaching**

Style of In-Services Teachers".

This study is significant because the findings of the study will help the teaching style which will in turn contribute to their teaching skills.

Hypotheses

There is no significant difference in the Teaching Style of In-Service teachers owing to the differences in Gender , Location of school and Marital status.

Sample Characteristics and Selection

The sample for the present study consists of 300 school teachers.I

Tools Used For the Study

- Teaching Style tool prepared by the investigator.
- Personal data sheet prepared by the researcher to collect information on personal variables.

Statistical Treatment of the Data

The major functional variable for analysis and interpretation of data includes the variables Gender, Location of School, Marital Status. The following statistical techniques were used for analysis and interpretation of data .Critical ratio were calculated to test the difference in Teaching Style of in-service teachers owing to the differences in Gender, Location of School, Marital Status.

Interpretation of data

The process of interpretation is essentially one of the starting what the results convey. The choice of the statistical techniques of the data analysis was largely determined by the research hypothesis to be tested. The data was analyzed by using SPSS package.

Hypothesis wise analysis

There is no significant difference in the Teaching Style of In-Service teachers owing to the differences in Gender, Location of school, Marital status.

Table showing the critical ratio of the differences in Teaching Style and Gender, Location of school, Marital status.

Variable	Category	N	Mean	S.D.	Critical Ratio	Df	Significance Level

Gender	Male	150	104.30	10.677	0.630	298	0.299
	Female	150	105.02	10.622			
Location of School	Urban	150	103.86	11.019	0.495	298	0.079
	Rural	150	106.02	10.194			
Marital Status	Marred	168	104.78	11.178	0.103	298	0.769
	Unmarred	132	105.14	9.981			

Gender

From the above table the significant value 0.299 is greater than 0.05 which is not significant at 5% level. So, the null hypothesis is accepted. Hence, there is no significant difference in Teaching Style of In-service teachers Owing to Gender.

Location of school

From the above table the significant value 0.079 is greater than 0.05 which is not significant at 5% level. So, the null hypothesis is accepted. Hence, there is no significant difference in Teaching Style of In-service teachers Owing to Location of school.

Marital Status

From the above table the significant value 0.769 is greater than 0.05 which is not significant at 5% level. So, the null hypothesis is accepted. Hence, there is no significant difference in teaching Style of ln-service teachers Owing to Marital Status.

Discussion of the results

Teaching Style and Gender

The computed table ratio led to acceptance of null hypothesis and so there is no significant difference in teaching Style of In-service teachers owing to difference in Gender. This result is in good agreement with the finding of Pying, How Shwu; Rashid, Abdullah Mat (2014).

Teaching Style and Location of school

The computed table ratio led to acceptance of null hypothesis and so there is no significant difference in Teaching Style of In-service teachers Owing to difference in Location of school. This result is in good agreement with the finding of Prescott, Julie (2014).

Teaching Style and Marital Status

The computed table ratio led to acceptance of null hypothesis and so there is no significant difference in Teaching Style of In-service teachers owing to difference in Marital Status. This result is in good agreement with the finding of Umesh Rao, (2010) and also contradicting with the findings of Damrongpanit, Suntonrapot; Reungtragul, Auyporn (2013).

Major findings of the study.

- There is no significant difference in Teaching Style of In-service teachers Owing to Gender.
- There was no significant difference in Teaching Style of In-service teachers Owing to Location of school.
- There was no significant difference in teaching Style of In-service teachers Owing to Marital Status.

Educational implications

In the present study it is found that teachers working in Rural areas have a low Teaching style. Cluster and block level forum need to be created so that teachers meet at least once a month to discuss their problems, share their experiences and advance their development. This forum should also be utilized for acquainting Rural teachers with recent developments in their pedagogic practices.

Workshops should be conducted to introduce new techniques and innovative thoughts to approach students and others, which would enhance the efficacy of teachers.

Ways to Enhance Teaching Style

1. In modern era of 21st Century Students outcomes have been supported by various systems such as skill required in the New context, global competence, Global awareness, self-direction, global co-operation information, literacy, Critical thinking and problem reflecting thinking.

2. In ancient days Gurukula method of Teaching was followed, where in which Autocratic mode of teaching was followed Whereas in 21'1 century, multicultural class room been adopted. It is not only about the performance it is about the children, and all about their learning. So a teacher must cater to the clutter free class room of learning style. Clutter free refers to grab attention of the students by focusing on the strength of the students.

3. By using various aids like Digital smart class, Usage of Digital class rooms, Smart class, teachers can pull out the optimum output from the students.

4. Improve the classroom conversation, teachers can use the responsive classroom conversation methodology.

Conclusion

The purpose of the present investigation was to study on "Teaching style of In- Service teachers", and this study is sure to find some usefulness in the field of education and findings of the study can serve as a database for further research.

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