

## **A DOCUMENT ANALYSIS ON ACADEMIC ACHIEVEMENT AMONG THE SECONDARY SCHOOL STUDENTS OF TIRUCHIRAPPALLI DISTRICT WITH RESPECT TO SELECT VARIABLES**

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### **Abstract**

In the present study Academic Achievement of Secondary School Students of Tiruchirappalli District with respect to select variables was analyzed by Document analysis using secondary data. Among the 39649 students who appeared for the X Standard Public Examination (March 2016) from this District Tiruchirappalli, 1853 students were selected randomly. They were divided into various sub groups on the basis of institutional and students' variables. The data were collected from the Secondary Source data namely 'Tabulated Mark Sheet' of the School concerned which was published by the Directorate of Government Examination, School Education Department, Government of Tamilnadu for the March 2016 X Standard Public Examination. The academic achievement refers to the sum of marks secured in the subject's Tamil, English, Mathematics, Science and Social Science., Type of School Management, Type of School. Educational implication of the study and the major findings has been discussed.

**Key Words:** Academic Achievement, Document Analysis.

### **I. Introduction**

Education cultivates the human behavior. Its success depends on the amount of knowledge/ contents / concepts one possess after having exposed to the particular content of the domain. Students' academic achievement to be improved steadily for his/her both intellectual and spiritual development. Hence the achievement or attainment of contents /concepts has been studied even today. According to Kohli (1975), academic achievement is the level of proficiency attained in academic work or as formally acquired knowledge in the school subjects which is often represented by percentage of marks obtained by students in examination. Good (1981) in the Dictionary of Education refers to academic achievement as the knowledge attained or skills developed in the school subjects, usually designated by test scores or marks assigned by the teacher. Dictionary of Education (2003) defines academic achievement can be defined as performance, knowledge or skill acquired after instructions and training in courses or subjects of study, usually determined by test score or by marks assigned by teacher. Thus academic achievement of a student is defined as the outcome of education of a student – the extent to which a student has achieved his or her educational goals over a certain period.

### **II. Need for the Study**

Students face numerous challenges to attain the particular level of academic achievement and possess different levels of academic achievement. Studies reveal that the academic achievement depends on many factors, personal and non-personal factors. The non-personal factors can further be classified into school-related factors, environment of the home or family-related factors. (Khan and Malik, 1999; Fan, 2001; Gonzalez – Pienda et al., 2002). In order to improve the academic achievement of the students, teachers should be aware of the factors which promote/hinder students' achievement. Hence the present study was carried out.

### **III. Objectives of the Study**

The objectives of the present study are:

- To find out the level of Academic Achievement of Secondary School students of Tiruchirappalli
- To find out whether there exists any significant difference in the Academic Achievement of Secondary School Students of Tiruchirappalli with respect to the Institutional variables viz., Type of School Management and Type of School.

### **IV. Hypotheses of the Study**

To achieve the above objectives the following hypotheses have been framed.

- The Academic Achievement of Secondary School Students of Tiruchirappalli is low.
- There exists no significant difference in the Academic Achievement of Secondary School Students of Tiruchirappalli with respect to the following Institutional variables viz., Type of School Management, Type of School, Locale of the School.

### **V. Methodology in brief**

Document analysis was followed in the present study using secondary data. This study is limited to the X Standard Students of Tiruchirappalli District of Tamil Nadu only.

#### **5.1 Sample**

In Tiruchirappalli District 39649 students appeared for the X Standard Public Examination (March 2021). Among these students, 1853 students were selected randomly from the schools of Tiruchirappalli District. They were divided into various sub groups on the basis of institutional and students' variables. Hence the sample for the present study is 1853.

#### **5.2 Tool**

The data were collected from the Secondary Source data namely 'Tabulated Mark Sheet' of the School concerned which was published by the Directorate of Government Examination, Chennai, functioning under School Education Department, Government of Tamilnadu for the March 2021 X Standard Public Examination. The academic achievement refers to the sum of marks secured in the subjects Tamil, English, Mathematics, Science and Social Science.

### **VI. Analysis & Interpretation**

The data were analyzed by using 't' test and 'F' test.

### 6.1 Academic Achievement of Secondary School Students of Tiruchirappalli

The minimum, maximum, mean and Standard Deviation (SD) obtained for the five subjects Tamil, English, Mathematics, Science and Social Science are presented in the Table 1.

**Table 1 : Mean & SD of the subjects of X Standard Students of Tiruchirappalli District**

Subject	N	Minimum	Maximum	Mean	Std. Deviation	Mean Percentage
Tamil	1853	9.00	99.00	74.88	17.67	72.52
English	1853	7.00	774.00	63.78	23.77	61.85
Mathematics	1853	4.00	100.00	60.12	20.85	58.21
Science	1853	33.00	100.00	84.49	12.11	81.39
Social Science	1853	9.00	100.00	77.23	19.09	74.75
Total	1853	116.00	494.00	360.30	77.91	69.70

The mean and standard deviation of the Academic Achievement of the students have been found to be 360.30 and 77.91 respectively (Table 1). The maximum Achievement score that could be obtained is 500. The maximum score teacher trainees obtained in the present study has been 494 and the minimum 116. The mean score (360.30) is far above 69.70% of the maximum score. So, it may be concluded that Academic Achievement of Secondary School Students is rather high. The SD, 77.91, indicates that there is a slight wide dispersion of scores.

Subject-wise analysis of the Academic Achievement also shows that their performance is relatively high in all the five subjects except Mathematics (Table.1). Students are relatively very good in the achievement at 'Science' with the mean score of 84.49 and SD, 12.11. Next to the subject Science, students are very good in the achievement at 'Social Science' with the mean score of 77.23 and SD, 19.09. Regarding the subject 'Tamil' the achievement mean and SD have been found to be 74.88 and 17.67 respectively. In the subject 'English' the achievement mean score is 63.78 and SD is 23.77. When comparing with the remaining four subjects students are relatively not good in the achievement at 'Mathematics' with the mean score 60.12 and SD 20.85. So it may be concluded that students of Tiruchirappalli District generally have high Academic Achievement in the Board Examination. Subject-wise analyses also support the general conclusion.

**Table 2 : Test of Significance:- Difference in Academic Achievement between the High Achievers and Low Achiever of Tiruchirappalli District**

**A DOCUMENT ANALYSIS ON ACADEMIC ACHIEVEMENT AMONG THE SECONDARY SCHOOL STUDENTS OF TIRUCHIRAPPALLI DISTRICT WITH RESPECT TO SELECT VARIABLES**

Level of Achievement	N	Mean	Standard Deviation	t	df	Significant Level
High	1683	375.32	64.22	56.615	333*	0.01
Low	170	211.65	31.69			

\*Equal variance not assumed

The Table 2 shows that the calculated t value 56.615 is greater than the table value 2.590 for df = 333 at 0.01 level of significance. Hence the null hypothesis that there is no significant difference in Academic Achievement between High Achievers and Low Achiever of Tiruchirappalli District is rejected at 0.01 level of significance.

### **6.2 Testing the significance of difference in Academic Achievement among the Students of Tiruchirappalli District with respect to the variable Type of Management of the School**

**Table 3 : ANOVA Summary**

Sources	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1890663.710	2	945331.855	187.008	0.01
Within Groups	9351819.015	1850	5055.037		
Total	11242482.725	1852			

The Table 3 shows that the calculated 'F' value 187.008 is greater than the table value 4.63 for df (2, 1850) and hence the null hypothesis there exists no significant difference in Academic Achievement among the Students of Tiruchirappalli District with respect to the variable Type of Management of the School is rejected at 0.01 levels of significance. Further analysis was done The results are given in the Table 4.

**Table 4 : Test of Significance:- Difference in Academic Achievement between the Students of Tiruchirappalli District who studied in Government Schools, Government Aided Private Schools and Unaided Private Schools**

Type of School Management	N	Mean	Standard Deviation	t	df	Significant Level
Government	754	328.77	74.03	11.329	1631	0.01
Government Aided Private	879	369.99	72.65			

Government	754	328.77	74.03	22.840	504*	0.01
Unaided Private	220	429.67	51.91			
Government Aided Private	879	369.99	72.65	13.970	459*	0.01
Unaided Private	220	429.67	51.91			

\*Equal variance not assumed

The Table 4 shows that the calculated t values 11.329, 22.84 and 13.970 are greater than the table values 2.576, 2.585, 2.587 for  $df = 1631, 504, 459$  respectively at 0.01 level of significance. Hence the null hypotheses that there is no significant difference in Academic Achievement between students of Tiruchirappalli District who studied in Government Schools & Government Aided Private Schools, Government Schools & Unaided Private Schools, and Government Aided Private Schools & Unaided Private Schools are rejected at 0.01 level of significance.

### 6.3 Testing the significance of difference in Academic Achievement among the Students of Tiruchirappalli District with respect to the variable Type of School

**Table 5 : ANOVA Summary**

Sources	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	433198.636	2	216599.318	37.071	0.01
Within Groups	10809284.089	1850	5842.856		
Total	11242482.725	1852			

The Table 5 shows that the calculated 'F' value 37.071 is greater than the table value 4.63 for  $df (2, 1850)$  and hence the null hypothesis there exists no significant difference in Academic Achievement among the Students of Tiruchirappalli District with respect to the variable Type of School is rejected at 0.01 levels of significance. Further analysis was done. The results are given in the Table 6.

## V. Results and Discussion

The present study reveals that there exists significant difference in academic achievement among the Secondary School Students of Tiruchirappalli District with respect to the following variables Type of School Management, Students differ in their academic achievement with respect to the variable Type of School Management. Students show a significant difference in their academic achievement with respect to the variable Type of Management. Haseen (1999), Chamundeswari *et al.*, (2006), and Aruna *et al.*, (2009) also reported difference in academic achievement with respect

to the variable Type of School Management. The students of Girls' Schools have secured highest achievement than the students of other type of schools. Significant difference in academic achievement with respect to type of Schools has also been reported by Singh (2005), Bajwa *et al.*, (2006) and Gurubasappa (2009). The Students differ in their academic achievement with respect to the variable Locale of the School. Balasubramanian (1997), Mishra (1997), Sarsani *et al.*, (2001), Mittal (2008), Aruna *et al.*, (2009) and Gurubasappa (2009) also have reported that students differ in their academic achievement with respect to the variable Locale. Students differ in their academic achievement with respect to the variable Medium of Instruction. The reports of Balasubramanian (1997), Radha (1998), Gurubasappa (2009) and Sarsani *et al.*, (2010) also confirmed that Medium of Instruction has an influence on students' achievement. The secondary students show a significant difference in their achievement with respect to their Gender. Similar findings have been reported by the studies of Aggarwal (1983), Vijayalakshmi and Natesan (1992), Schnedeker (1997), Mishra (1997), Koreswara *et al.*, (1998), Suneetha *et al.*, (2001), Jacobs (2002), Devi and Mayuri (2003), Deary *et al.*, (2004), Bruni *et al.*, (2006), Leeson *et al.*, (2008), Aruna *et al.*, (2009), Gurubasappa (2009), Sarsani *et al.*, (2010), Karagöl and Bekmezci (2015) and Leo David & Jeyaraman (2015). This study shows students differ in their academic achievement with respect to their community. Similar findings have been reported by the studies of Haseen (1999), Singh (2005). In contrary to the studies of Sharon and Cheryl (2008) and Choudhary (2009), the students of Separated Families have recorded highest academic achievement than students of Joint Family and Nuclear Family. Similar to the existing literature Satyanandam (1969), Krishnan (1977), Saini (1977), Singh & Srivastava (1983), Sharma (1984), Baker & David (1986), Chakrabarti (1986), Rajput (1989), Bhatnagar & Sharma (1992), Cherian (1992), Shah (1993), Pal *et al.*, (1996), Kohl *et al.*, (2000), Devi and Kiran (2002), Rothman (2003), Tavani and Losh (2003), Ganguly (2004), Sunitha (2005), Gurubasappa (2009) and Farkhanda and Ehtesham (2013) the Educational Qualification of the Parents' has direct relationship with students' academic achievement. In terms of Parents' Occupation students differ in their academic achievement. Similar findings have been reported by Alim *et al.*, (2008), Aruna *et al.*, (2009), Gurubasappa (2009) And Mohanty (2009). The Present study reveals that the students having Computer in Home have recorded a higher level of academic achievement than students not having Computer in Home.

## **VI Conclusion**

The present study was conducted to study the Academic Achievement of Secondary School Students of Tiruchirappalli District with respect to the variables Type of School Management. The students of Unaided Private Schools have recorded highest achievement than students of Government Aided Private Schools and Government Schools. This may be due to the availability of excellent infrastructure facilities and utilization of modern technological inputs like smart board for classroom transaction in the Unaided Private Schools. This evinces a special care is to be taken to study the facilities and technological inputs available and their appropriate utilization in the Government Schools. The students of Girls' Schools have secured highest achievement than the students of Co-Educational and Boys Schools. This may be due to the discipline-based problems

faced both by the teachers and students in Boys Schools than Girls' Schools. Hence a trained Academic Counselor may be appointed in Boys Schools. Hence in Schools steps may be taken to provide all kinds of modern technological inputs right from Computer to Virtual Classroom facilities.

## IX. References

1. Dictionary of Education (2003). Retrieved from [www.dictionaryofeducation.com](http://www.dictionaryofeducation.com)
2. Good, C. V. (1959). Dictionary of Education, New York: Pleasure Hill Boom Co. Inc.
3. Karagöl, Ibrahim; Bekmezci, Sinan (2015) Investigating Academic Achievements and Critical Thinking Dispositions of Teacher Candidates *Journal of Education and Training Studies*, **3** (4) : 86-92
4. Kohli T. (1975). "Characteristic, Behavioural and Environmental Correlates of Academic Achievement of Over- and Under- Achievers at Different Levels of Intelligence". Unpublished Ph.D. thesis, Department of Education, Punjab University, Chandigarh
5. M.Leo David and K.Jayaraman (2015) A study on Academic Achievement related to Emotional Intelligence among Teacher Trainees in Tiruchiappalli District *Indian Streams Research* **5** (7) : 1-6
6. Rothman's (2003) The Changing influence of Socio Economic Status on Students Academic Achievement," recent evidence from Australia, Paper presented at the annual meeting of the American education Research Association, Chicago, April
7. S. Chamundeswari (2013). Emotional Intelligence and Academic Achievement among Students at the Higher Secondary Level *International Journal of Academic Research in Economics and Management Sciences* **2** (4)
8. Schnedeker, John Allan., (1997), Psychological Factors in School Achievement, Dissertation Abstracts International Vol : 58 No : 11, May 1998, P : 4189A
9. Sharon R. Ghazarian and Cheryl Buchler (2010) Inter-parental Conflict and Academic Achievement: An Examination of Mediating and Moderating Factors. *J Youth Adolesc.* **39** (1): 23-35.
10. Vijayalaxmi, O. and H. Natesan (1992) Factors Influencing Academic Achievement. *Research Highlights* **2**.