

MULTI-FACTOR INTEREST AND ACADEMIC ACHIEVEMENT AMONG HIGHER SECONDARY SCHOOL STUDENTS IN TAMILNADU

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ABSTRACT

Multi-Factor Interest plays an important role in how Pupils are selecting their Career? Learn and Remember things, about what they learnt? It affects the Cognitive Domain. It varies from Person to Person, and in the field of Education it varies from Subject to Subject and in various activities. The main objective of this study is to find out the Multi-Factor Interest and Academic Achievement among Higher Secondary School Students. This study is empirical investigations into some selected factors (Business Factor, Clerical Factor, Agricultural Factor, Mechanical Factor, Successful Factor, Out Door Factor, Aesthetic Factor and Social Factor) are influenced in this study. Five Hundred (500) Higher Secondary School Students were randomly selected. 't' Test, 'F' Test and Chi-square analysis are used in this study. The study revealed that there is significant association between Multi-Factor Interest and Academic Achievement, Communities and Type of Management among the Higher Secondary School Students. Based on these findings, it is recommended that, the Hand on Inquiry – Oriented Curriculum should be given to the students where they are divided into small ability co-operative grouping which would be more effective than traditional teaching methods. Students will learn to solve problems independently and help each other to develop skills. Keywords: Students, Multi-Factor Interest, Academic Achievement, Different Types of Management, etc

INTRODUCTION:

Pupils are the property of a nation. The value of that property is in direct proportion to the quality of the pupils. It is essential on the part of every nation to improve the quality of its pupils to enhance its own wealth. And this improvement is possible through education. Education is the backbone of any country and its necessity for countries like India need not be retired. It is a dynamic, life long process. Any modification brought about in the behavior of an individual as a result of his/her interaction with the environment constitutes learning. In the context of modern society, the function of calculation is not merely to supply some amount of knowledge to the education; but to develop in them desirable habits, interests, attitudes and skills which help him to lead a full worthwhile life. Each person has a unique and relatively stable, persisting organization of characteristics that go to make up his individual interest. The core of interest consists of the individual's concept of himself and of the role he plays in life. Hence education develops an individual like a flower, which distributes its fragrance all over the environment. In this sense it is conducive process, which leads a person from darkness, poverty and misery to developing his/her individuality in all its mental, emotional, physical and social aspects.

NEED AND SIGNIFICANCE OF THIS RESEARCH:

Interest is determinant of individual's goals and ends whereas abilities and aptitudes are power and efficiency variables in attaining the set goals. "Interest tells us about the feeling that a person has towards a certain object and activities. Aptitudes tell us about

Pupils' achievement corresponds to whether pupils have mastered certain body of knowledge to be demonstrated at appropriate time and space. There are various factors that are responsible for the different levels of achievement, which are cognitive as well as non-cognitive. The level of difficulty of the subject matter is the intelligence of students, interests of the students, instructional strategies used level of comprehension of the pupils and motivation contributes towards achievement. Academic achievement plays a vital role in the determination of future success. It is a paramount importance particularly in the present society. A great emphasis is placed on achievement right from the beginning of formal education. The entire programme of an institution is geared to the achievement of high academic standards.

Multi-Factor Interest also plays an important role in how people select, learn and remember things, about what they learnt. Multi-Factor Interest affects the cognitive domain. It varies from person to person, and in the field of education it varies from subject to subject and in various activities. Though there are various subjects, language plays a vital role, as it is a means through which the other subjects are learnt.

the individual's future ability or power to perform this or that of activity. No aptitude can unfold and grow without appropriate interests, motivations and temperament. Aptitudes are predominantly inborn and a product of maturation, whereas interests are learnt. Interests have been hypothesized to be the product of interaction between inherited neural and endocrine factors on

the one hand and opportunity and social factors on the other hand. Interest is a feeling that causes attention to focus on an object or work. Every individual have different interest and it is specific to them. Education is more important than the knowledge which tends to affect the interest of the individual towards the achievement. Interest is the motivational factor which affects the learning.

The significance of the field in education and application of it in the community and the resultant research focus in the present century it declares the complexity and need for a continuous evaluation for

HYPOTHESES:

Boys and Girls do not significantly differ in the Dimensions of Multi-Factor Interests.

Students who belong to different Community do not significantly differ in their Dimensions of Multi-Factor Interests.

Students in different Types of School do not significantly differ in their Dimensions of Multi-Factor Interests.

Students in different Types of Management do not significantly differ in their Dimensions of Multi-Factor Interests.

RESEARCH DESIGN:

Nature of Study	Variables	Tool	Sample	Analysis	Statistical Methods
Survey Method	Multi-Factor Interest Academic Achievement	Multi-Factor Interest By Kapoor & Singh (1992). XI – Std. Mid-term Marks.	Higher Secondary School Students. Boys – 214 Girls – 286 Total - 500	Qualitative & Quantitative Analysis	't' Test And ANOVA followed by Tukey HSD Test and Chi-Square

modification in the ultimate achievement and improved performance.

OBJECTIVES OF THE RESEARCH:

To study the Multi-Factor Interest and Academic Achievement among the Higher Secondary School Students.

To know the Multi-Factor Interest and Academic Achievement of students belonging to different Types of School, Religions and Communities.

To understand the Multi-Factor Interest and Academic Achievement of students according to their Socio-Economic Status.

Students belonging to different Religions do not significantly differ in their Dimensions of Multi-Factor Interests.

Students belonging to different Socio-Economic Status do not significantly differ in their Dimensions of Multi-Factor Interests.

Students belonging to various level of Academic Achievement do not significantly differ in their Dimensions of Multi-Factor Interests.

There is Association between Academic Achievement of the students and their Dimensions of Multi-Factor Interests.

ANALYSIS AND INTERPRETATION:

Frequency Distribution of Personal Variables Selected for this Study

Variables	Frequency	Percentage
Gender:		
Male	242	48.40
Female	258	51.60
Types of Management:		
Government	300	60.00
Government Aided	100	20.00
Private	100	20.00
Types of School:		
Boys	100	20.00
Girls	100	20.00
Co-education	300	60.00
Medium of Instruction:		
Tamil	435	87.00
English	65	13.00
Religion:		
Hindu	442	88.40
Christian	41	8.20
Muslim	17	3.40
Community:		
SC/ST	175	35.00
MBC	151	30.00
BC	174	34.80
Academic Achievement:		
600-800	43	8.60
800-1000	228	45.60
1000-1200	229	45.80
Socio-Economic Status:		
Low	432	86.40
Average	68	13.60

INFERENCE ANALYSIS:

Null Hypothesis - 1: There is no significant difference between Boys and Girls with respect to the Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Table – 1: Difference between the Mean Score of Boys and Girls with Respect to the Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Dimensions of Multi-Factor Interests	Gender				't' Value	Level of Significance
	Male		Female			
	Mean	SD	Mean	SD		
Business Factor	11.67	3.50	11.51	3.44	.52	NS
Clerical Factor	7.88	2.60	7.26	2.61	2.64	0.01
Agricultural Factor	7.56	2.76	7.39	2.70	.70	NS
Mechanical Factor	8.54	2.48	8.94	2.62	1.73	NS
Successful Factor	7.86	2.86	8.31	2.88	1.75	NS
Outdoor Factor	9.12	2.93	9.21	2.51	.37	NS
Aesthetic Factor	8.18	2.74	8.20	2.50	.10	NS
Social Factor	10.15	2.94	9.88	2.82	1.06	NS

TOTAL	70.95	10.80	70.69	10.21	.28	NS
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It is found that there exists significant difference at 0.01 level in the dimension namely, Clerical Factor between Boys and Girls.

Null Hypothesis – 2 : There is no significant difference between Tamil and English Medium Students with respect to the Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Table – 2 : Difference between the Mean Score of Tamil and English Medium Students with respect to the Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Dimensions of Multi-Factor Interests	Gender				't' Value	Level of Significance
	Male		Female			
	Mean	SD	Mean	SD		
Business Factor	11.23	3.36	14.00	3.22	6.25	.01
Clerical Factor	7.33	2.51	9.08	2.84	5.13	.01
Agricultural Factor	7.33	2.64	8.40	3.15	2.97	.01
Mechanical Factor	8.56	2.47	9.98	2.82	4.25	.01
Successful Factor	7.84	2.75	9.78	3.15	5.22	.01
Outdoor Factor	9.08	2.70	9.75	2.77	1.86	NS
Aesthetic Factor	8.24	2.63	7.86	2.53	1.09	NS
Social Factor	10.06	2.76	9.63	3.58	1.13	NS
TOTAL	69.67	9.77	78.49	11.21	6.59	.01

It is found that there exists significant difference at .01 level in the Dimensions namely Business Factor, Clerical Factor. Agricultural Factor. Mechanical Factor and Scientific Factor between Tamil and English Medium Students.

Null Hypothesis - 3: There is no significant difference between Low and Average Group of Socio-Economic Status with respect to the Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Table – 3 : Difference between the Mean Score of Low and Average Group of Socio-Economic Status with respect to the Dimensions of Multi-Factor Interests.

Dimensions of Multi-Factor Interests	Gender				't' Value	Level of Significance
	Male		Female			
	Mean	SD	Mean	SD		
Business Factor	11.54	3.43	11.87	3.69	.72	NS
Clerical Factor	7.55	2.57	7.63	2.97	.25	NS
Agricultural Factor	7.40	2.68	7.94	3.01	1.53	NS
Mechanical Factor	8.76	2.59	8.66	2.37	.29	NS
Successful Factor	8.04	2.85	8.41	3.04	.99	NS
Outdoor Factor	9.15	2.71	9.28	2.80	.36	NS
Aesthetic Factor	8.24	2.66	7.87	2.27	1.09	NS
Social Factor	9.94	2.88	10.43	2.56	1.29	NS
TOTAL	70.62	10.31	72.09	11.57	1.07	NS

It is interesting to note that the Average Group of Socio-Economic Status Students are better than the Low Group of Socio-Economic Students in the Dimensions of Multi-Factor Interests.

Null Hypothesis- 4: Students belonging to various Religions do not significantly differ among themselves with respect to their Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Table – 4 : Difference between the Mean Scores of Various Religions with respect to the Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Dimensions of Multi-Factor Interests	Religion						't' Value	Level of Significance
	Hindu		Christian		Muslim			
	Mean	SD	Mean	SD	Mean	SD		
Business Factor	11.49	3.46	12.20	3.49	12.65	3.41	1.60	NS
Clerical Factor	7.64	2.61	6.56	2.43	7.76	2.99	3.27	.05
Agricultural Factor	7.46	2.70	7.32	2.78	8.18	3.28	.63	NS
Mechanical Factor	8.71	2.56	8.73	2.56	9.76	2.54	1.39	NS
Successful Factor	8.10	2.89	7.56	2.45	9.12	3.39	1.78	NS
Outdoor Factor	9.16	2.70	8.54	2.88	11.00	2.15	5.04	.01
Aesthetic Factor	8.26	2.60	7.49	2.47	8.12	3.33	1.63	NS
Social Factor	10.06	2.86	9.27	2.80	10.53	3.34	1.70	NS
TOTAL	70.87	10.30	67.66	7.87	77.12	16.77	5.01	.01

The above ANOVA results reveal that the students from Muslim Religion do significantly differ from the Hindu and the Christian Students in all over Multi-Factor Interests at 0.01 level of significance. And it reveals that there is no significant difference between the students of various religions in their Business Factor, Agricultural Factor, Mechanical Factor, Successful Factor, Aesthetic Factor and Social Factor.

Null Hypothesis – 5 : There is no significant difference among different level of Academic Achievements with respect to their Dimensions of Multi-Factor Interests among Higher Secondary School Students.

Table – 5 : Difference among the Mean Score of Different Level of Academic Achievement with respect to their Dimensions of Multi-Factor Interests.

Dimensions of Multi-Factor Interests	Academic Achievement in Total Marks						't' Value	Level of Significance
	600-800		800-1000		1000-1200			
	Mean	SD	Mean	SD	Mean	SD		
Business Factor	11.30	3.60	11.00	3.22	12.23	3.58	7.56	.01
Clerical Factor	7.49	2.64	7.21	2.41	7.92	2.78	7.56	.01
Agricultural Factor	7.47	2.43	7.21	2.70	7.73	2.79	2.14	NS
Mechanical Factor	7.84	1.96	8.52	2.51	9.14	2.65	16.41	NS
Successful Factor	7.74	2.74	7.50	2.62	8.75	3.01	11.71	.01
Outdoor Factor	9.02	3.02	9.09	2.65	9.28	2.74	.326	NS
Aesthetic Factor	8.12	2.49	8.34	2.35	8.06	2.88	.676	NS
Social Factor	10.35	2.57	10.33	2.62	9.62	3.13	3.79	.05
TOTAL	69.33	9.21	69.19	9.04	72.72	11.71	7.14	.01

The above ANOVA reveals that there is significant difference among various level of Academic Achievement and in the Dimensions of Multi-Factor Interests. Out of 8 Dimensions, in the 5 Dimensions, students who have Low Level of Academic Achievement do significantly differ from their counter parts.

Null Hypothesis – 6 : There is no Association between Multi-Factor Interests and Academic Achievement among Higher Secondary School Students.

Table – 6 : Association among Multi-Factor Interests and Academic Achievement among Higher Secondary School Students.

Academic Achievement	Multi-Factor Interests			Row Total	Chi-Square	Level of Significance
	Low	Average	High			
600-800	15 (11.4)	19 (19.8)	9 (11.8)	43	9.58	0.05
800-1000	61 (60.6)	116 (104.9)	51 (62.5)	228		
1000-1200	57 (60.9)	95 (105.3)	77 (62.7)	229		
TOTAL	133	230	137	500		

Since the 'P' value is less than 0.05 %. The null hypothesis is rejected at 5% level of significance with regard to their Academic Achievement and Multi-Factor Interests. It is found that there is significant association between Multi-Factor Interests and Academic Achievement.

Null Hypothesis - 7: There is no Association between Multi-Factor Interests and Community among Higher Secondary School Students.

Table – 7 : Association between Multi-Factor Interests and Communities among Higher Secondary School Students.

Community	Multi-Factor Interests			Row Total	Chi-Square	Level of Significance
	Low	Average	High			
SC/ST	51 (46.6)	90 (80.5)	34 (48.0)	175	9.58	0.05
MBC	41 (40.2)	70 (69.5)	40 (41.4)	151		
BC	41 (46.3)	70 (80.0)	62 (47.7)	174		
TOTAL	133	230	137	500		

Since the 'P' value is less than 0.05%. the null hypothesis is not accepted at 5% Level of Significance with regard to different communities of the students and their Multi-Factor Interests and Different Communities.

Null Hypothesis - 8: There is no Association between Multi-Factor Interests and Different

Types of Management among Higher Secondary School Students.

Table – 8 : Association between Multi-Factor Interests and Different Types of

Management among Higher Secondary School Students.

Types of Management	Multi-Factor Interests			Row Total	Chi-Square	Level of Significance
	Low	Average	High			
Government	86 (79.8)	156 (138.0)	58 (82.2)	300	30.11	0.01
Aided	24 (26.6)	30 (46.0)	46 (27.4)	100		
Private	23 (26.6)	44 (46.0)	33 (27.4)	100		
TOTAL	133	230	137	500		

Since the 'P' value is less than 0.01%, the null hypothesis is not accepted at 1% level of significance with regard to different types of Management of the students and their Multi-Factor Interests. It is found that there is significant association between Multi-Factor Interests and different Types of Management.

MAJOR FINDINGS:

English Medium Students are better than the Tamil Medium Students in their Multi Factors. Out of 8 Dimensions, in 3 Dimensions, Tamil and English Medium Students do not significantly differ in their Multi-Factor Interest.

Muslim Students do not significantly differ from the Hindu and the Christian students in all over Multi-Factor Interest. And it reveals that there is no significant difference between the students of various Religions in their Business Factor, Agricultural Factor, Mechanical Factor, Social Factor, Aesthetic Factor and Successful Factor.

There is significant Association between Multi-Factor Interest and Academic Achievement.

There is significant Association between different Communities of the students and their Multi-Factor Interest.

There is significant Association between Multi-Factor Interest and different Types of School.

There is significant Association between Association between Multi-Factor Interest and Different Types of Management.

RECOMMENDATIONS:

Students should be respected and treated as individual. We must allow them to express their interest in different fields. Parents must respect their interest.

Appropriate learning skills should be developed from early childhood by giving dresses and courses. In their adolescents stage their choices would be widened which will help them to pick out their educational employment choices of their own out fits.

The parents should take care of the study of their children seriously and make all efforts to facilitate their study.

The school should provide appropriate atmosphere that is cheerful and conducive

to the pupils. Class Libraries and Central Libraries should be stocked with necessary books.

The Government must give trained teachers and proper guidance to the students for their career development. The teachers should encourage the habit of reading newspapers and all sort of magazines.

The hand on inquiry – oriented curriculum should be given to the students where they are divided into small ability cooperative grouping which would be more effective than traditional teaching methods. Students will learn to solve problems independently and help each other to develop skills.

Academic Achievement can be enhanced by the schools by giving after school programmes by giving educational enrichment programmes.

EDUCATIONAL IMPLICATIONS:

Education is the process of gradually filling up the empty mind of the child with grains of knowledge. The teacher's mind and the books are the store houses of mental granary of the child. This is called the gold-sack theory. The books and teachers are sources of the springs of knowledge, from these sources the stream of knowledge is to be piped into the empty vassal of the child's mind. This is humorously called the pipeline theory. Obviously education and knowledge is regarded as the ultimate educational aim.

Education preparation is a process of preparation or getting ready for the responsibilities and privileges of adult life-preparation for "complete living", this theory is the outcome of modern scientific tendency in education and has for its exponents men like Herbert Spencer, T.H.Huxley and others.

CONCLUSION:

Education is the basic necessity for serving in this competitive world. But many of them view that education is enough for their life successful. But it is not true. Basic level education is just a foundation for life. So people who quit their education at basic level should continue their education at least to their college level. This will not only improve the intelligence, but also increase their qualification. This create a better employment opportunities for the person which will help them to climb the ladder of life which in turn promote the national development.

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