



**STUDY THE RELATIONSHIP BETWEEN STUDENT'S PERSONALITY,
ATTITUDE TOWARDS SCIENCE, HIGHER AND MINIMUM QUALIFIED TEACHERS
TEACHING EFFECTIVENESS WITH ACADEMIC ACHIEVEMENT IN SCIENCE.**

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ABSTRACT

The purpose of the study was to **“Study the Relationship Between Student's Personality, Attitude towards Science, Higher and Minimum qualified teachers Teaching Effectiveness with Academic Achievement in Science”**. The sample consists of 40 teachers and 120 students from Murarji Desai Residential Schools. Thus, stratified random sampling technique was used to select teachers and random sampling technique was used to select students. Ex Post Facto research design was used in the present study (Kerlinger, 1964, p. 379). Among the other things, the study revealed that; i) The student's personality types, attitude towards science increasing the academic achievement in science with highly qualified teachers; ii) The teachers teaching effectiveness increasing the academic achievement in science with highly qualified teachers; iii) The student's personality types increasing the academic achievement in science with minimum qualified teachers; iv) The student's attitude towards science increasing the academic achievement in science with minimum qualified teachers; v) The teachers teaching effectiveness increasing the academic achievement in science with minimum qualified teachers.

KEYWORDS: Personality, Attitude towards Science, Academic Achievement.

INTRODUCTION

Education is never ending process, which is intricately interwoven with life, enriching the individual with a variety of experience, kindling the flames of knowledge with constant probing into the mysteries of life, within and without. Each educational institution should produce educated, intelligent individual who can think independently not a mass which can be manipulated. For this, the emphases in education should shift from cramming information to stimulating analytical thinking. Charles E. Silverman in his Crises in Class-room rightly mentioned “What tomorrow needs is not mass of intellectual, but mass of educated men to feel and to act as well as to think. Herbert Spencer said “Education is the training of completeness of life it will bring out the perfection which is latent in every man”.

Education does not mean pouring of lot of ideas or information into the brain of the individual. It is a more process of drawing from within than putting from without. It means the gradually mental growth and enrichment of man from infancy to maturity.

TEACHING EFFECTIVENESS

Teacher effectiveness is an old concept to us. We have been listening that some teachers are the most effective ones. This means that those teachers have attained the needed competence in their roles and functions, such as the preparation and planning for teaching, classroom management, and mastery over the subject matter, teacher characteristics and their interpersonal relations. Also these teachers excel in their other personality characteristics. They are said to be the best teachers/effective teachers. Some teachers who are least effective are inferior in respect of their roles, functions and their personality characteristics. Most effective and least effective teachers being the ends of continuum, in between these two ends moderately effective teachers lie.

IMPORTANCE OF TEACHING EFFECTIVENESS

It is apparent, therefore, there is no doubt that teachers occupy an important and crucial place in the educational system in shaping the destiny of any country. This is the reason that at times teachers are called as social engineers. Gandhi (1970) has also accepted them (teacher) as “custodian of future”. No educational system can thrive well without the help of competent teacher. However, the entire edifice of education is shaky if the teacher is incompetent. An efficient or effective teacher is amongst the foremost factors contributing to educational refinement and improvement.

One of the most difficult problems in educational research is that of recognizing teacher effectiveness or discriminating effective one from less effective teacher. Role of the teachers in the teaching learning process is at the pivot place. After all teacher acts as a bridge between education system and the pupils, The impact of any educational programme of innovation on the pupil operates through the teacher. Thus in brief, the success and school any standard of depends directly on the quality of its teachers. Therefore, for vertical mobility of the standard of education, the first and foremost steps should be to produce effective teachers.

NEED AND IMPORTANCE OF THE STUDY

Teaching process is an interaction between the personalities of the teacher and the pupils. A competent teacher is considered to be one who is not only intelligent, personally desirable and socially adequate and also professionally able individual with optimum motivation for self-actualization. Research conducted so far has revealed that teachers' personality has significant effect on students' academic achievement. Many studies have related the two important dimensions of personality, extroversion and neuroticism, to school achievement. The former characterizes the person who is outgoing, social, and interested in others rather than himself. The latter is developed from chronic anxiety, caused by multiple and obscure sources, that makes the person ineffective in carrying out the ordinary affairs of living. He feels exhausted, helpless, and excited. The findings though not completely consistent, have tended to indicate that these two personality variables of teachers are important in predicting school achievement. Attitudes of teachers towards teaching profession have been shown to be a significant predictor of school achievement. Studies have revealed that students who achieved the highest grade in each subject had teachers with highly favorable attitudes towards profession. Attitude is a comparatively stable, emotional and learned pattern of behaviour, which predisposes the individual to act in some consistent way towards his / her profession.

Chandra, D. (1976) studied the perception of work values in teaching. The study, among other things, revealed that teachers with favorable attitude towards teaching perceived their job favorably on work values like social service, chances of progress, intellectual challenge, prestige and power, etc. Further, effective teachers differed significantly from ineffective teachers on work values like economic returns, chances of progress, prestige and power, etc. Sukhwil, K.D. (1977) studied the attitudes of married lady teacher towards the teaching profession. The study revealed, among other things, that a

high percentage of those who were identified as having a favorable attitude towards the teaching profession also revealed the highest percentage of problems in actual work situations.

Thus, it is revealed that a liking for the profession is an essential pre-requisite for its success. In the teaching profession, success is measured in terms of the academic achievement of students. Hence, the teachers should develop right type of attitude towards the profession in order to achieve the goal in the educational field. The goal is to transform the personalities of the students into beings useful to the society.

The review of studies conducted so far clearly shows that although, teaching effectiveness, personality and attitudes of the teachers are thoroughly investigated, and these studies examined their effect on dependent variable separately. There is a need to study the interaction effect of these variables on the dependent variable. Therefore, the present study is an effort to investigate the interaction effect of teachers' personality, teachers' attitude towards teaching profession and teachers' teaching effectiveness on the academic achievement of students in mathematics.

OBJECTIVES OF THE STUDY

1. To Study the relationship between students' personality, attitude towards science and higher qualification teachers teaching effectiveness with academic achievement in science.
2. To Study the relationship between students' personality, attitude towards science and minimum qualified teachers teaching effectiveness with academic achievement in science.

HYPOTHESES

1. There is no significant relationship between student's personality, attitude towards science and higher qualification teachers teaching effectiveness with academic achievement in science.
2. There is no significant relationship between student's personality, attitude towards science and minimum qualified teachers teaching effectiveness with academic achievement in science.

METHODOLOGY

Ex Post Facto research design was used for the present study (Kerlinger, 1964, [374]). Ex Post Facto research is a systematic empirical inquiry in which the investigator does not have direct control of independent variable because their manifestations have already occurred because they are inherently not to manipulate. Inferences about relation among variables are made, without direct Inversion from concomitant variation of independent and dependent variables.

Sample

The sample for the study is usually drawn from the population related to the problem of the study. In the present case the Murarji Desai Residential school students and teachers are to be involved. Hence, the sample is drawn from these High Schools.

The investigator chosen randomly Murarji Desai Residential Schools in the Karnataka State.

Sample of Teachers and Students

No. of Schools	Teachers			Students IXA, IXB		
	Male	Female	Total	Male	Female	Total
60	120	120	240	600	600	1200

The above schools are randomly chosen. Hence, there are 60 schools. 240 teachers and 1200 students studying in IX standard taught by the respective selected teachers who are involved in the present study. From each class three students (above average, average and below average) were also selected to rate each teacher. Thus stratified random sampling technique was used to select the teachers and random sampling technique was used to select the students.

Higher qualifications Teachers $n=77$

Minimum qualifications Teachers $n=163$

Tools

The following tools were used in collecting the data:

- Kundu Introversion – Extraversion Inventory [KIEI]
- Ahluwalia Teacher Attitude Inventory [ATAI]
- Students Ratings of Teaching Effectiveness Scale [SROTES]
- Academic Achievement Test in Science, developed by the investigator

Statistical Techniques

- Correlation Analysis

Analysis and Interpretation

Correlation between student's personality, attitude towards science and teachers teaching effectiveness and academic achievement in science (higher qualifications $n=77$)

Hypothesis: There is no significant relationship between student's personality, attitude towards science and higher qualification teachers teaching effectiveness with academic achievement in science.

To achieve this hypothesis, the Karl Pearson's correlation coefficient technique has been applied and the results are presented in the following table:

Table-1: Results of correlation coefficient between student's personality, attitude towards science and highly qualified teachers teaching effectiveness and academic achievement in science.

Independent variables	Academic achievement in science			
	$r(X,Y)$	t-value	p-value	Signi.
Student's personality	0.2911	2.6351	<0.05	S
Attitude towards science	0.1606	1.4091	>0.05	NS
Teachers teaching effectiveness	0.3011	2.7345	<0.05	S

From the above table, we clearly found the followings

- The relationship between student's personality types and academic achievement in science of students is found to be positive and significant ($r=0.2911$, $t=2.6351$, <0.05 , S) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the student's personality types increasing the academic achievement in science with highly qualified teachers.
- The relationship between student's attitude towards science and academic achievement in science of students is found to be positive and not significant ($r=0.1606$, $t=1.4091$, >0.05 , NS) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the student's attitude towards science increasing the academic achievement in science with highly qualified teachers.

- The relationship between teachers teaching effectiveness and academic achievement in science of students is found to be positive and significant ($r=0.3011$, $t=2.7345867$, <0.05 , S) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers teaching effectiveness increasing the academic achievement in science with highly qualified teachers.

Correlation between student's personality, attitude towards science and teachers teaching effectiveness and academic achievement in science (Minimum qualifications n=163)

Hypothesis: There is no significant relationship between student's personality, attitude towards science and minimum qualified teachers teaching effectiveness with academic achievement in science.

To achieve this hypothesis, the Karl Pearson's correlation coefficient technique has been applied and the results are presented in the following table:

Table-2:Results of correlation coefficient between student's personality, attitude towards science and minimum qualified teachers teaching effectiveness and academic achievement in science.

Independent variables	Academic achievement in science			
	r(X,Y)	t-value	p-value	Signi.
Student's personality	0.3021	4.0211	<0.05	S
Attitude towards science	0.1411	1.8085	>0.05	NS
Teachers teaching effectiveness	0.1206	1.5415	>0.05	NS

From the above table, we clearly found the followings

- The relationship between student's personality types and academic achievement in science of students is found to be positive and significant ($r=0.3021$, $t=4.0211$, <0.05 , S) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the student's personality types increasing the academic achievement in science with minimum qualified teachers.
- The relationship between student's attitude towards science and academic achievement in science of students is found to be positive and not significant ($r=0.1411$, $t=1.8085$, >0.05 , NS) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the student's attitude towards science increasing the academic achievement in science with minimum qualified teachers.
- The relationship between teachers teaching effectiveness and academic achievement in science of students is found to be positive and not significant ($r=0.1206$, $t=1.5415$, >0.05 , NS) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the teachers teaching effectiveness increasing the academic achievement in science with minimum qualified teachers.

DISCUSSION AND CONCLUSION

In this study, the researcher aimed to **RELATIONSHIP BETWEEN STUDENT'S PERSONALITY, ATTITUDE TOWARDS SCIENCE AND HIGHER AND LOWER TEACHING EXPERIENCE OF TEACHERS TEACHING EFFECTIVENESS WITH ACADEMIC ACHIEVEMENT IN SCIENCE**. From the analysis report, it is concluded that; i) The student's personality types, attitude towards science increasing the academic achievement in science with highly qualified teachers; ii) The teachers teaching effectiveness increasing the academic achievement in science with highly qualified teachers; iii) The student's personality types increasing the academic achievement in science with minimum qualified teachers; iv) The student's

attitude towards science increasing the academic achievement in science with minimum qualified teachers; v) The teachers teaching effectiveness increasing the academic achievement in science with minimum qualified teachers.

EDUCATIONAL IMPLICATIONS

Attitudes are enduring dispositions to react in-certain ways towards different objects. They are relatively stable. In other words, they represent the extent of positive or negative affect (feelings) associated with such object including person, places, institutions, systems, practices and ideas. As the feelings towards any of these may be Positive or Negative, the overall attitude may be said to be Favorable or Unfavorable. Attitudes are essentially affective but they have cognitive and effective domains as well. They have cognitive contain in terms of the knowledge and beliefs about the objects concerned. This may emerge from one's sustained experienced with the object over a period of time, or from an intense experience in a limited time. In fact, this is the base of the attitude, as the feeling emerges from this cognitive structure with internalized with the accompanying feelings. Attitudes also have a affective domains in the sense that, they urge one to behave or respond in certain particular way in the respect of subjects. In other words, they make for certain behavioral tendencies. A positive attitude or favorable entertains approach behavior in some form or degree(receive, respond, seek, participate, contribute , love, etc.), and a negative or unfavorable attitude makes for avoidance behavior(avoid, move away from, dislike, oppose, hate etc.,).

In the present study, students' attitude towards teaching learning process in science subjects or perseverance of science activities in the schools is conceived. It is a comparatively stable, emotional and learned pattern of behavior which predisposes the individuals to act in some consistency towards his or her opinion. It may range between positive or favorable attitude to negative or unfavorable attitude. The findings of the present study revealed that, the favorable attitude of the students towards science has more influence on the academic achievement than the unfavorable attitude towards science. This may be due to that a favorable attitude makes the students to know better, to take more interest, to get involved in to, to experience effectively, to comprehended more , to think creatively, to explore more, to look the happenings carefully, to analyze and interpret properly to develop systematic approach and thinking, to adopt scientific steps etc. Whereas the unfavorable develops less thinking, no interest, no creative thinking, no proper experimentation, no enquires, no discussions, no opportunities to express the feelings. Hence, low attitude towards the subjects and teachers etc. The unfavorable attitude towards science of students makes the teaching learning tasks harder more tedious and unpleasant.

BIBLIOGRAPHY

1. Alishie, L. (1996). Participation in Extra Curricular Activities and the Relationship to Academic Achievement and School Attendance Among High School Seniors. *Dissertation Abstracts International*, 57(3).
2. Budhdev (1990). Academic Achievement among Children of Working and Non-working Mothers. *Indian Psychological Review*, 52(2), pp. 69-73.
3. Bush, R.N.(1942). A Study of Student Teacher Relationship. *Journal of Educational Research*, 35, pp.645-56.
4. MEDLEY, D.M., and KLEIN, A.A. (1957). Measuring Classroom Behaviour with a Pupil-Reaction Inventory. *Elementary School Journal*, 57:315-319.
5. MEDLEY, D.M., and KLEIN, A. A. (1959). Some Behavioural Correlations of Teacher Effectiveness. *Journal of Educational Psychology*, 50:239-246.