

A study of students perception of class room behavior of mathematics teachers.

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Abstract

The present study was carried out to examine the teachers personality dimension of classroom behaviour of mathematics teachers as perceived by the students. A sample of 171 students studying in VIII, IX and X class in three sec-school of Jammu city has been selected for conducting the present study. Out of which there were 105 boys and 66 girls were selected randomly for the study. Lamsal scale was used to measure classroom behaviour of the mathematics teachers. The results reveals that boys and girls are alike with regard to the perception towards teaching behaviour dimensions of classroom behavior of mathematics teachers. Boys and girls do not seem to differ significantly with regard to their perception towards teacher's personality dimension of classroom behaviour of the mathematics teachers.

Keywords: Behaviours, Perception, Attitude & Mathematic teacher

Introduction

Education is the basic need of every child. We are very much familiar with the literacy paradox that child is the father of man. Indeed, child is the foundation of man. He is the citizen of tomorrow in shaping the child, we don't only shape the future of man but also the future of the nation.

There has been a great deal of thinking about improvement of content and process of education at all stage that teacher education is the most crucial input in the field of education. What policies may be laid down, in the ultimate analysis, these have to be interpreted and implemented by teachers as such through their personal example or through teaching learning process.

Behaviour not only determines the performer's success or failure, happiness or unhappiness but, more importantly, it gravely affects the other people and whole community around the performer. Meaningful behaviour is said to occur when the performer is aware of relationship, especially cause effect relationship among the things and events or between them and the performer. When this awareness is present in the performer, he/she can predict and control the events and thus can control the behaviour elicited. This awareness also makes the performers behaviour flexible and adaptable. Hence the performer behaves according to the persisting environment. In other words this type of behaviour can be called as intelligent.

Different individuals, shows different types of behaviour depending upon their sex, age, situation or experiences faced nature. Each stage of development also carries with it some specific and characteristics behaviour patterns. Such behaviours are the evidence that the child is maturing. Growth typical responses are out groups and dropped when the child successfully moves beyond the stage with which they are associated.

The behaviour which starts from birth and continues up to sixteen months is called infant behaviour or 'Rudimentary behaviour'. During this period of behaviour of the infant is activated by innate needs which creates tension and in order to reduce tension, the infant behaviour operates purely on altruistic level unrelated to any social world but gradually social events becomes the prime motivator of behaviour the behaviour shown by the individual between two and twelve year is called child behaviour.

The characteristic type of behaviour which is displayed by youth of ages twelve to eighteen year as regards play, dress reading, sex relationship, intellectual interests and the like is called adolescents behaviour'. During adolescents the social boundary of the child expands beyond the four walls of home. The child comes in contact with other families and process of socialization is accelerated. Dependency becomes reduced to specific sphere of family living. The teacher becomes a new support for dependency in school. The quality of depending is influenced by the previous experiences.

Various studies have been conducted to find out possible relationship between classroom behavior of teachers and teaching effectiveness some of the researchers have tried to find out oral behaviour of teachers, attitude towards teaching and achievement of pupils.

In India, teaching is mainly concerned with imparting information. Even science and mathematics are mainly dominated by oral communication. Mathematics is vital for science and technology therefore in view of its importance the **Kothari commission (1964-66)**. Has recommended that mathematics should be taught as compulsory subject during the first ten years of schooling.

People generally agree that achievement in any subject of study is affected by the attitude towards that particular subject the same is true of mathematics also. In our country unfavorable attitude towards mathematics is said to be taught of the reasons of students low achievements in this Subject students perceptions regarding teacher's behaviors.

The term **perception** has been defined differently by the educationists.

Verma (1983) has defined that perception represents one of the specific ways in which man come to know and think about other individuals, their characteristics, qualities and other states, **International encyclopaedia of education (1985)** has defined perception as follows; Perception can be first hand acquisition of information from the environment, perceiving is acquiring information viz systems about the object places and event of the world.

In this study, students perception about teachers behaviour has been taken as How students perceive behaviour of their teachers? This behaviours is related to class room interaction which students have been observing every day.

Attitude towards teaching

Concept of Attitude: An attitude may be defined as relatively enduring tendency to respond consistently towards the object, person or even in either a favourable or an unfavourable way.

Attitude has their components: cognitive, affective and behavioural (Kieslar, 1975) the cognitive aspect refers to one beliefs and knowledge about the object or issue. The affective or emotional component refers to one positive or negative feeling towards the issue or object.

Mathematics teachers: Mathematics teachers are those who are teaching mathematics as a subject in the school and have acquired master's degree in mathematics.

Need and significance of the study

Various research studies have been attempted to study teacher's behaviour and attitude towards teaching. Researchers did study Teacher effectiveness from the point of view of teacher characteristics or teacher behaviour or its impact on the achievement of students. While observing this observation, the investigator has some relationship between teacher classroom performance and attitude towards teaching.

The studies have revealed that student's evaluation of teaching can greatly facilitate professional Improvement of the teachers, if the teachers and their students accept it in the right spirit. Therefore, it is easy to infer that student's perception provide genuine information about the classroom behavior of teachers.

The investigator feels that there are some significant relationship between behavior and attitude towards teaching. Therefore, the investigator has selected this problem to establish it empirically.

Review of related studies

Lerner (1989) has stressed that mathematics should be taught to primary and junior high school students in the manner, which solidifier basic mathematics concept, so that the knowledge and Computational skills about them remain stable and available to them while learning mathematical tasks of a higher order.

Romeo, F. (1987) : Anxiety for teaching mathematics is an example of the general concern elementary school teachers report regarding their indefinite knowledge about context and their inability to present it effectively to students.

Prof. Robert M. Hashway (1999) in an effort to enhance critical thinking, problem solving and concept development in mathematics, especially for underrepresented minority pupils. The mathematics enhancement perform (MEP) has been operating for the past four years, under the auspices of the comprehensive regional centre for minorities access centre, founded by the national science foundation. M.Ed. combines the talents of university's school of education and area school districts to achieve its goal.

It is true that many studies have been conducted in western countries which explored the attitude of mathematics teachers related its relationship with sex, grade level and achievement in mathematics. But it was difficult to find out a study whereas the relationship between student's perception about classroom behaviour of mathematics teachers and attitude towards teaching has been determined.

By Mc Donald (1965): An attitude is a predisposition to act in a positive or negative way towards persons, object, ideas and events.

Thakur (1976) made a study to find out characteristics of good teachers. The purpose of the study was to analyse the characteristics of good teachers as perceived by his pupils.

the following were the main findings:

- 1) The outstanding positive traits of the teachers as viewed by the pupils were good teaching, kind and pleasing manner, good advice and guidance and equal treatment to all.
- 2) The pupils were in the favour of strict discipline and strict administration.
- 3) The pupils loved to get assignment regularly.
- 4) A teacher who did not let down pupils was loved by all.
- 5) The negative, traits were partially, wasting time unmindful of duty, rude, lack of attention, ridiculing students bad teaching, excessive talk unrelated to subject matter and conceit.

Objectives

1. To study the classroom behaviour of mathematics teachers as perceived by the teachers.
2. To study the teaching behaviour dimension of classroom behaviour of mathematic teachers as perceived by the students.
3. To examine the teachers personality dimension of classroom behaviour of mathematis Teachers as perceived by the students.
4. To compare the classroom behaviour of mathematics teachers perceived by girls and boys of secondary school of Jammu city.
5. To compare the teaching behaviour dimension of classroom behaviour of mathematics teachers as perceived by boys and girls of secondary schools of Jammu city.
6. To compare the teachers personality dimensions of classroom behaviours of mathematics teachers as perceived by boys and girls of secondary schools of Jammu city.

Hypothesis

1. There is a favourable perception of secondary students towards the teaching behavior dimension of mathematics teachers.
2. There is favourable perception of secondary stage students towards the classroom behaviour of mathematics Teachers towards the teacher's personality dimension of mathematics teachers .
3. There is a difference in mean scores of perception of boys and girls on classroom behaviour of mathematics teachers of secondary Teachers .
4. There is different in means scores of perception of boys and girls on teaching behavior dimension of mathematics teachers of secondary schools.
5. There is a difference in means scores of perception of boys and girls on Teachers Personality behavior dimension of mathematics teachers of secondary schools.

Sample

Sample has been selected from school of Jammu City of J&K comparing students studying mathematics as subject at secondary stage, 171 students studying in VIII, IX and X class in three sec-school of Jammu city has been selected randomly for conducting the present study. Out of which there are 105 boys and 66 girls.

Tool

Students perception classroom behaviour scale developed by Lamsal (1993). This scale was used to measure classroom behaviour of the mathematics teachers. It includes 32 items dealing with the two dimensions of the classroom behaviour of the teachers i.e. teaching behaviour and teacher's personality.

Analysis and interpretation of data

Students perception of classroom behaviour of mathematics teachers.

In order to find out the students perception of classroom behavior of maths teachers necessary statistics (mean, S.D.) were calculated and the same have been presented in table -1

Table 1

Students perception of classroom behaviours of maths teachers

Classroom behavior	Sex		Mean		SD	
	N1	N2	X1	X 2	X1	X2
Classroom Behaviour Total	105	66	76.69	75.51	9.53	9.98
Teaching Behaviors Dimension	105	66	40.32	39.54	5.71	4.50
Teaching Personality Dimension	105	66	36.46	35.75	5.05	5.85

Discussion

Students perception of classroom behavior of teachers scale comprised of 32 items. The maximum score was 96 and minimum score was 48 the table 4.1 reveals that calculated mean and SD of maths Teachers classroom behaviour came out to be 76.69 and 9.53 for boys and 75.51 and 9.17 for girls respectively. Thus the calculated mean of the perception of classroom behavior of mathematic teachers for the total sample is higher than that of theoretical mean. Hence it may be interpreted that total sample of students have reflected favourable perception towards mathematics teachers classroom behavior. Therefore the hypothesis No.1 which states that is favourable perception of secondary stage students towards the classroom behavior of mathematics teachers, is accepted.

The perception of classroom behavior of mathematics teachers is studied under two dimension i.e. teachers behavior and teachers personality. The students perception on these two dimensions of classrooms behaviours of mathematics teachers have been discussed in sub head 1(a) and 1(b)

1(a) Students perception of classroom behavior of mathematics teachers on teaching behaviours dimension

There are 17 items on this dimension. The theoretical mean in 25-5 table -1 shows out to be 40.32 and 39.57 respectively. Their S.D are than that of the theoretical mean on the dimension of teaching behavior of mathematics teachers hence the total sample of secondary stage students have indicated favourable perception our teaching behavior of mathematics teachers therefore, hypothesis No. 2, which states that there is favourable perception of secondary stage students towards the teaching behavior dimensions of mathematics, is accepted.

1(b) students perception of classroom behaviour of mathematics. Teachers on teachers personality dimension.

There are 15 items on this dimension. The theoretical mean is 22.5. table -1 depicts that the calculated mean of boys and girls come out to be 34.46 and 37.75 respectively. Their 3.D are 5.05 and 5.85. thus the calculated mean of higher than that of the theoretical mean on the dimension of teachers personality of mathematics teachers. Hence, the total sample of secondary stage students has shown the favourable perception on teachers personality dimension of mathematics teachers. Hence, the total sample of secondary stage students has shown the favourable perception on teachers personality dimension of mathematics teachers, therefore the hypothesis NO. 3, which states that there is favourable perception of secondary stage students towende the teaचाers personality dimension of mathematics teachers I accepted.

2. Comparison of perception of boys and girls on classroom behaviour of mathematics teacher

In order to find out the difference in mean schooling of perception of boys and girls of secondary stage on classroom behaviour of mathematics teachers, necessary statics (mean and SD) were calculated and the same have been depicted in table-2

Table 2 Significance of difference in mean scores of perception of boys and girls of secondary stage on classroom behaviours of mathematics teachers : not significant at 0.05 level of significance

Group	Mean	S.D	Mean Difference	Standard Error	T Value	Remarks
Boys N1=105	46.32	5.40	46.32-35.97	0.76	0.80	NS
Girls N2=66	35.97	4.80	=0.35			

Table -2 show that the 'T'- value for significance of difference in mean scores of perception of boys and girls students on classroom behaviors of mathematics teachers was found to be 0.80 which is not significant at 0.05 level (table value 't' are 1.98 and 2.62 at 0.01 and 0.05 level of significance).

This indicates that there was no difference in the perception of boys and girls of secondary stage with regards to the classroom behaviour of the mathematics teachers. They had more or less similar level of perception towards classroom behaviour of mathematics teachers, however, boys have more favourable perception them their girls counterpart. In fact this apparent difference in mean scores of both the groups could be attributed to the chance factor or sampling fluctuations.

Hence, the research hypothesis anticipating the significance difference in mean scores of perception of boys and girls on classroom behaviour of mathematics teachers of secondary schools was not confirmed.

Comparison of perception of boys and girls on teaching behaviour dimension of classroom behaviour of mathematics teachers.

The calculated statistics with regard to study the perception of boys and girls on teaching behaviour dimension of classroom behaviour of mathematics teachers.

Table -3

Significance of difference in mean score of perception of boys and girls of secondary school on teaching behaviour dimensions of classroom behaviours of mathematics teachers.

Group	Mean	S.D	Mean Difference	Standard Error	T Value	Remarks
Boys N1=105	40.32	5.40	40.32-39.57	$\sqrt{\frac{29.16}{105} + \frac{23.04}{66}}$	$\frac{0.75}{0.78} = 0.96$	NS
Girls N2=66	39.57	4.80	=0.75	$\sqrt{\frac{0.27}{30.61} + \frac{0.34}{0.78}}$		

NS: not significant at .05 level of significant

It may be seen in **Table - 3** that obtained t-value was found to be 0.96 which is not significant at 0.05 level of significant with df 169. This clearly indicates that boys and girls of secondary schools do not differ in the perception of teaching behaviour dimension of classroom behaviour of mathematics teachers. In other words boys and girls backgrounds of secondary schools do not seem to affect their level of perception of teaching behaviour dimension of classroom behaviour of mathematics teacher hence the concerned research hypothesis was not accepted.

The difference in mean score of perception of boys and girls of secondary schools towards teaching behaviours dimensions of the classroom behaviour of the mathematics teachers .

Comparison of perception of boys and girls on teachers personality dimension of classroom behaviours of mathematics boys and girls on teachers personality dimension of classroom behaviours of mathematics teachers .

For comparing the perception of boys and girls on teachers personality dimension of classroom behaviours of mathematics teachers. Their mean, S.D and T-value were calculated.these have been shown in table-4

Table -4 Significance of difference in mean scores of perception of boys and girls of secondary schools on teacher’s personality dimensions of classroom behaviors of mathematics teachers.

Group	Mean	S.D	Mean Difference X-X	Standard Error	T- Value
Boys N= 105	X1= 36.46	X1= =5.05	36.46 -35.75	0.86	0.79
Girls N2= 66	X2= 35.75	X1= =5.85	=0.68		

NS: not significant at 0.05 level of significance.

Table-4 shows that the value of ‘t’ for significance of difference in mean scores of boys and girls of secondary stage on teachers personality dimension of classroom behaviour of mathematics teachers was found to be 0.79, which is significant at 0.05 level of significance. This clearly indicates that perception of boys and girls of secondary level have similar towards teachers personality dimension of classroom behaviour of mathematics teachers. The apparent difference in the mean scores of perception of the two groups may be described to the chance factor. Hence the result of the study did not support the hypotehisi, which expected significant difference in perception of boys and girls towards the teachers personality dimesion of classroom behavior of mathematics teachers at secondary level

Conclusion

The secondary school students have shown favourable perception on the classroom behaviour of the mathematics teachers when compared with the theoretical means.The secondary school students have shown favourable perception on the teaching behaviour dimension of the classroom behaviours of the mathematics teachers when compare with the theoretical mean.On the teachers personality dimension of the classroom behaviour of the mathematics teachers when compared with the theoretical mean. Boys and girls of secondary schools have shown similar perception towards classroom behaviours of mathematics teachers. Boys and girls are alike with regard to the perception towards teaching behaviour dimensions of classroom behavior of mathematics teachers. Boys and girls do not seem to differ significantly with regard to their perception towards teachers personality dimension of classroom behaviour of the mathematics teachers.

Educational implications

The investigation has realized that the integrative approach of teachers performance in the classroom and attitude and teaching will prove an effective approach.There is a need to extend such studies with different context of mathematics teachers regarding their age, qualification, socio economic status etc. this will open new visit of research in mathematics education.

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