

**Socio -Economic status of parents, on the Attitude of Secondary School Students towards Science Education in Purba Medinipur District North Zone Block (Panskura, Kolaghat)**

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**Abstract**

*At present, economic factors have a major effect on the decisions that govern our everyday life in respect of the people's attitude towards the study of science among the higher secondary school students of the areas where the study has been conducted. So, the decisions reached and the conclusions drawn from the research are the right tools for making further investigation in this field of study. Therefore, it is a positive attitude among students towards science studies and they also encourage the students of the higher secondary school level in the rural and deep village areas.*

**Key-words:** Science and Technology, Higher Secondary students, Economic factors.

**Introduction**

It is revealed from the research papers that science and technology form very important aspects of life in all the countries of the world despite there being tremendous difference in their culture and level of development. But the development of a positive attitude towards science, scientists and taking science subjects as course of study in the students of the higher secondary school level, which has always been a constituent part of science education, has become increasingly a subject of concern. Students' learning interests and attitudes toward science have both been studied for decades and it in the same rate is going on in the 21st century. It is argued that science and technology curriculum should be adjusted with the needs of learners of the different streams of education. It means that we cannot accept the conventional curriculum of science and technology which does not match with the Global development and culture.

At present the District of Purba Medinipur is undoubtedly the fast developing district in the state of West Bengal and its pace of progress has recently attracted the notice of other districts in the state and even of many other districts outside the state. It may well be mentioned here that the district has not been able to achieve this outstanding place of honour overnight. It needed a long and sustained effort in the part of the residents of this district with the liberal assistance of the state power and fund to reach the present level of development. Though the credit of the recent remarkable upsurge in every field of social progress goes to the state and central authorities, still the quality, and the sustained labour of the people as also the richness of the social milieu cannot be gainsaid.

Attitude mostly depends on the type of knowledge one acquires about the idea, the conception, or the person, or any object with whom or with which the particular person comes directly or indirectly in contact with. Attitudes are imbibed and they are learned through varying experience which people gather and the process of gathering goes on unabated throughout the life. One's attitude towards a one's subject is an acquired tendency or a learnt deposition, a specific temperament both influencing and being influenced by social changes continuously taking place in the fast developing world.

Man naturally develops a sort of attachment from his childhood or an enthusiasm or a particular favorable feeling towards his subject or any subject and his preference for some selected people whom he gets in the society around him during his day to day living. Attitudes are to a great extent also responsible for the building of the behavioral pattern of a person towards the subject he learns or the topic he deals with in his practical life. Therefore, we may safely say that attitude of a person to a thing or a person or a subject is a determining acquired tendency which prepares the person to act in a certain responsible way with a scientific object or class of objects or socio-economic conditions pervading the environment.

We now live in an age of science and technology. Everything we judge with the standard of scientific reasons. The obsolete ideas about the world have taken a back seat. Those who know science and cultivate the study of science are sure to thrive. And those who are still conservative in their ideas stray away from the path of progress in science and lag behind the common stream of the developing world. The capitalist USA is making a fast progress using the brains that they purchase from the world market. The erstwhile USSR also made such a remarkable progress using their own indigenous merits. Now the USA and the said USSR have been mercilessly overtaken by some occidental nations including China and Japan. Our India which was ruthlessly exploited by foreign invaders like the Mughals and the Pathans in the distant past and the British colonizes in the recent past has recently woken up to their backwardness and has earnestly joined the race with a view to make a quick progress. And of the other regions of the district and the nation, the district of Purba Medinipur is at the forefront of development.

Attitudes are, thus, a learned behavioral activity which depends on socio-cultural environment of an individual. Children may imitate the attitude of their parents and elders in their childhood. The teachers also lend their share in the students' attitude formation. Attitudes are also nourished by one's own experience also and the experience is a common thing for no man is free from the indispensable impact of all-round progress the major share of which is perpetrated by the inventions of science.

Development of an attitude cannot be gainsaid, also depends on the external experience and internal natural state of the person concerned. Attitude, once formed, can also be changed but it takes time if they are imprinted or impressed deeper into the psyche of the person concerned. A great deal of the students' school's work is directly related to the attitude of the students to their subjects and the attitudes may have positive or negative influences upon the learning of their subjects, the way their teachers teach and other things of the school. Their Attitude is bound to have considerable impact on the accountability to the patrons of the subject and it is a motivating factor in their particular individual cases. Their Attitude determines their judgment and interest towards the particular subject and sometimes to a particular topic.

Faculty members and teachers are major instruments of the students' success or failure and regarding the formation of the students' attitude towards the learning of science subject or science and technology and it can help the rapid and steady development of the society. The faculty or teachers are responsible for the effective success of their students' efforts in the learning process or the system of science study or the manner of teaching the scientific and technological topics in the schools curricula. If the personal parameters of the academic environment of the faculty or the teaching community are not up to the satisfactory level in the secondary or higher secondary school, and the level of teaching capacity is below the optimum, the formation and growth of the students' attitude towards science subjects or science and technology in general will suffer and there will not be any development in the field of science and technology in future in any country. But this matter is purely hypothetical and we have no reason to lose faith in this matter.

The present research, or rather, the investigation into people's and students' attitude to science is carried out to study the relationship of academic achievement of the learners with the academic world's attitude towards science subjects or science and technology. The task of the motivation of the students to study science fighting through odds, some environmental and also some economic, is a very difficult task and a cause of anxiety to the academics of secondary and higher secondary school levels of our educational infrastructure. It is found that the teaching aptitude level and the teaching skill, the expertise of the teachers are significant predictors of the academic achievement and results of the higher secondary school level students of the Purba Medinipur District along with other parts of the state and the country and to some extent to the whole world in general. It is certain that the wariness (anxiety) prevailing among the faculty members, the teachers, and the students will have a negative impact on the academic achievement of the students and this negative attitude must be checked, for, any laxity shown in this regard will result in the country's and the humanity's backwardness in the development of science and technology.

It is also a fact that the Purba Medinipur District played a vital role in the achievement of the nation's independence. This present East Midnapore District gave birth to Matangini Hajra who laid down her life gallantly opposing the misrule of the British Raj. And Ajay Mukherjee, who became a Chief Minister of the state early in the seventies of the last century, was also born in this district, now is known as Purba Medinipur. If we look into the times prior to the division of the district in 2002, we will also find such illustrious persons like Ishwar Chandra Vidyasagar, the great educationist and martyr Kshudiram Bose, who gave his life fighting for the freedom of the land, were both from the undivided Midinipore District.

Now, if we turn to the causes of this sudden spurt of development in this district we will see that there are some academic reasons active behind this spectacular show of progress. Science and technology have played a very significant role in the economic and academic progress of the people of this district. It is a fact that some blocks of this district were very poor economically only a few years ago. The Panskura Block and Kolaghat Block are glaring examples of this. Panskura happens to be a low-lying land where water would be accumulated every monsoon and it would take almost the whole rainy season every year for the accumulated water to be dried up, for there was no other system of drainage, for the surrounding areas were higher than the land of this block.

The farmers were all poor and those who depended on farm land for their livelihood were becoming poorer with the passing of every year. But, in spite of their poverty, the people were all very enthusiastic about their children's education and though some mediocre students would invariably study arts and commerce subjects, most of them would opt for the subjects related to science and technology in their schools and colleges. At one time this Panskura & Kolaghat block would supply the greatest number of science teachers (of both schools and Colleges) and doctors and engineers. This trend of Panskura leading the district in academic field and the state in science education is still in progress. Even today a large number of science teachers in the schools and colleges of West Bengal are from this Panskura & Kolaghat Block of Purba Medinipur District. North Zone.

The Trend-Setter: The same may also be said of the two Panskura & Kolaghat blocks and those of the Tamluk sub-division of the district. If a survey is made (and it has already been made) in the educational institutions and industrial areas of the district, it will be seen that the majority of employees and teachers there are from these areas of Purba Medinipur District north zone, and a large number of them serving elsewhere will also turn out to be with their base in this fertile district of Purba Medinipur north zone, particularly Panskura & Kolaghat. Tamluk happens to be a rich contributor to the development of this district. The oldest Panskura Banamali College with the newly setup Rabindra Bharati Mahavidyalaya has added much prosperity to the civilization and culture of the district and state.

It is a fact Kolaghat & Panskura, will not ever be very important scientifically and culturally in future, recent or far. If the district can properly utilize its potent man-power (and this man-power is really very promising), it is sure to show the state and the nation the right path of spectacular progress. The Panskura and Kolkaghat Blocks are also at the centre of attention of the scholars, critics and researchers recently. Only a few years ago the residents of the whole area were economically very sufferer. Agriculture & Horticulture the production of paddy, varieties of secession flower like once in the whole year, was the people's only source of income. A handful of the people were poor weavers but their profession was facing tough completion with the clothes produced by the textile mills in the urban areas of the state, those in the western part of the country and the foreign countries like UK form where cotton garments would be imported by the then British colonial rulers. But now the financial status of the people has undergone a tremendous change after the introduction of hair industry in the area. Human hair abandoned by people is collected by agents of traders who process this hair and sell it to their buyers in the middle-east and the eastern nations of China, Japan, Korea, etc. The hair-trade along with the occupation of agriculture has brought about a spectacular economic progress in the life of the people. The younger generation of today are not much worried about unemployment for, after some basic education, they can engage themselves in this business of hair processing. It may well be referred to here that there is a lucrative market of hair trade abroad where people wear wigs to cover their bald heads.

The study of science is, it is seen, at the root of the recent fast progress of the Blocks. the Blocks under the Purba Medinipur district now figures as the most educated Blocks under district in the state of West Bengal , a fact which is once again doubtlessly proved by the results of the Madyamik and Higher Secondary Examinations of the West Bengal Board of Secondary education and Higher Secondary Council, resulting in the whole state and the nation turning their zealous eyes to this once neglected district of the province. Right now the Blocks under the district serves as a model of development to the whole humanity. The study of science and technology requires some amount of merit and sustained labour. The Midnapureans seem to possess that grit and perseverance. It seems, those days are not far when all Bengal will think what Purba Medinipur North Zone thinks today.

### **Research Methodology**

To collect the data stratified sampling technique will be adopted. Groups will be formed on the basis of parents' education (less or well- educated) students and locality like rural or urban. Thus, the research will be based on 2X2 functional design. Therefore, there will be Six sub-groups and in each group there will be 60 students of secondary school of Purba Medinipur District from where the collected data-attitude and the scale will be used.

### **Direct method and indirect method**

Direct method is related to the verbal report of the attitude. Indirect method refers to the interpretation of the attitude from the unsaturated or indirect responses. Generally the following devices are used for the purpose.

- Asking the individual directly how he feels about a subject – like questioning and interview technique;
- Asking to mark those statements from a list which he is in agreement with ( Checklist);
- To indicate his degree of agreement or disagreement with a series of statements dealing with the same subject (Attitude Scale); and
- Questionnaire and interview with Item analysis or reliability or validity.

Indirect method of measurement of attitudes is the process of inferring with the attitude directly from the verbal report or expressed opinion has many limitations. One may conceal one's real attitude and may not really know what one feels and is unable to know one's attitude about a situation in the abstract. To avoid this problem it has been tried to make use of the measurement-method that are indirect or disguised in nature. In these

method, the subjects are given opportunities to structure their own responses without letting them know the real purpose of the task. There may be a combination of verbal report and interpretive technique. Sorenson remarks: "Such factors as social experiences, propaganda, education and personal experience with different attitudes do make for modification and shift in people's predisposition towards objects, persons' ideas and situations is their environment." This above statement was published by Sorenson in the year 1977.

### Results & Discussion

Kolaghat Kola union High School, BOYS & GIRLS

Score	C.I.	Mid. Point	F	Cmf	X'	X' <sup>2</sup>	fx'	fx' <sup>2</sup>
30 – 40	29.5 – 40.5	35	11	11	-1		-11	11
41 – 51	40.5 – 51.5	46	11	22	0		0	0
52 – 62	51.5 – 62.5	57	11	33	1		11	11
63 – 73	62.5 – 73.5	68	11	55	2		22	44
74 – 84	73.5 – 84.5	79	11	88	3		33	99
85 – 95	84.5 – 95.5	90	14	143	4		44	224

$$\Sigma f = N = 69$$

$$\Sigma fx' = 99$$

$$fx'^2 = 389 \quad (\Sigma fx'^2)^2 = 2.045$$

$$\text{Mean} = AM + \frac{\Sigma fx'}{N} = 46 + (99)/69 \times 11$$

$$N = 46 + 15.78$$

$$= 61.78$$

$$\text{Median} = L + \left( \frac{N - Cf}{f} \right) \times i = 62.5 + \left( \frac{69/2 - 33}{11} \right) \times 11$$

$$= 62.5 + (34.5 - 33)/11 \times 11$$

$$= 62.5 + 2.871 = 65.371$$

$$\text{Mode} = 3 \times \text{Median} - 2 \times \text{Mean}$$

$$= 3 \times 65.371 - 2 \times 61.78$$

$$= 196.113 - 123.56$$

$$= 72.553$$

$$\text{S.D.} = i \times \sqrt{\frac{\Sigma fx'^2}{N} - \left( \frac{\Sigma fx'}{N} \right)^2}$$

$$= 11 \times \sqrt{(389/69 - 2.045)}$$

$$= 11 \times \sqrt{(5.638 - 2.045)} = 11 \times 1.895$$

$$= 20.845 \text{ Approx}$$

Where, CI = Class Interval, f = frequency, Cf = Cumulative frequency

X = mid point, AM = 46 and i = 11,  $X_1 = (x - AM)/i$

### Conclusion

The main aim is to study of an interest of the students in the subject or topics of **Socio -Economic status of parents North Zone Block Science and Technology** in the areas of North Zone under the Purba- Medinipur, West Bengal. The researcher hopes that the results will be helpful for the development of the **Socio -Economic status of parents North Zone Block**, Science and Technology curriculum in the Secondary or higher Secondary school level.

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