CHAPTER – 5

DISCUSSION

Mathematics has a great importance in our everyday life. In the era of science and technology, we cannot proceeds a single step without mathematics. In modern world, mathematics is being increasingly used in sciences, technologies, social science, education etc. The development of a country depends upon mathematical knowledge of the people. It is considered as a basic and compulsory subject up-to the secondary level. Kothari commission has stressed upon the introduction of mathematics as a compulsory subject up to secondary level. With the use of computer and other devices there is a more emphasis in the mathematics. Though the world is more mathematically inclined, the majority of students in school feel it as more abstract. The teacher can teach it with the help of modern educational technological devices and more advanced effective methods of teaching, there is a poor performance of the students in the mathematics. But it is found that students' achievements in mathematics at secondary level under Tripura Board of secondary Education are very poor. Hence, there must be some factors like psychological, social and biographical affecting the learner in learning of mathematics at large.

Whether intelligence and socio-economic status are responsible for poor performance in mathematics? No work in this area has done earlier for the achievements of mathematics at secondary level students in relation to intelligence and socio-economic status taking the students of Tripura at large.

Thus the major thrust of the present research was to study the nature and contributory factors of Achievement in Mathematics of the secondary level students. The study aims to explore the factors that are enhancing as well as deteriorating the Achievement of Mathematics of the students and for this purpose the following important variables have been undertaken: Intelligence, and Socio-Economic Conditions.

For this purpose, a group of 390 secondary level students studying in class IX from the 10 different schools of West Tripura were selected, followed by a purposive sampling technique. Data were collected by using APM and SES Inventories.

In order to execute the objectives (as mentioned earlier) of the present study, on the basis obtained scores, on the scale of socio-economic status, the students were categorized into certain groups as per the different dimensions of SES. Moreover on the basis of the Intelligence Scale, the students are categorized into three groups viz. high, middle and low level of Intelligence status. Further in order to

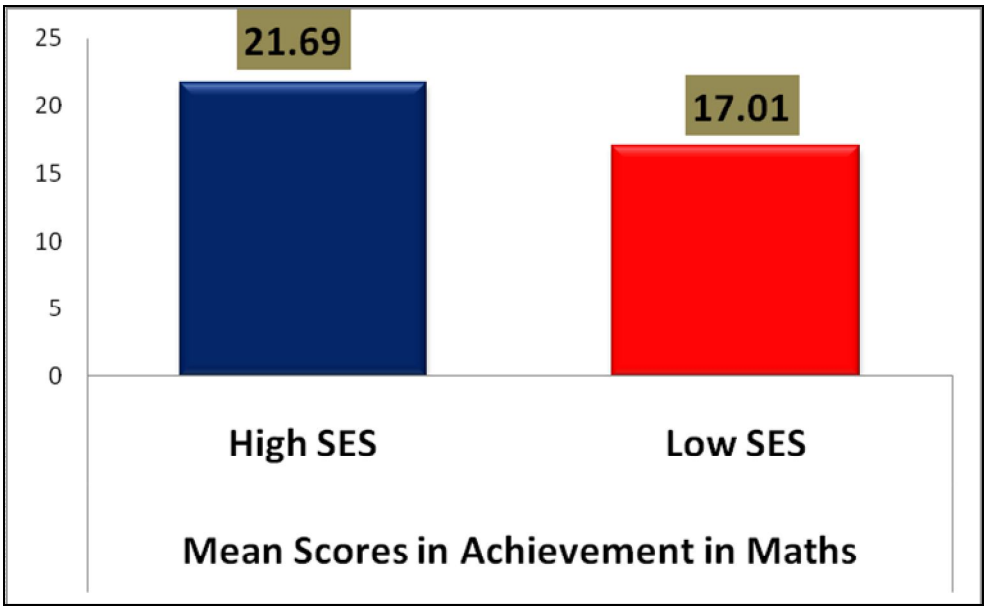
compare them on Achievement in Mathematics, Intelligence and SES scores Two - Way Anova, followed by t-tests were, used, with the help of latest version of SPSS. Pearsons *r* was also calculated in order to find out the correlation among Achievement in Mathematics, Intelligence and SES.

5.1. SOCIO–ECONOMIC STATUS AND ACADEMIC ACHIEVEMENT IN MATHEMATICS

The result (graph no 5.1.1.1) suggests that the High & Low SES group of students differ significantly with respect to their level of Achievement in Mathematics. The High SES group is better than the Low SES group of students with regard to Achievement in Mathematics. One of the intriguing aspects of the students Mathematics Achievement is the SES of their parents. It has become customary of educational research to treat SES as one of the effective factors of the Mathematics Achievement. Numbers of studies have clearly established a definite relationship between the SES and learning outcomes in Mathematics. David and Michal (1984), Leach & Tunnechlifle (1984), Rajput (1984), Singh (1986), Deshmukh(1988), Prabha Rashmi (1992), Setia (1992), Kim(1992), Leiker(1993), Pruett (1997), Segers (1995), Piearey (1996) and Patel (1997) have focused the positive contribution of the SES to the Achievement in Mathematics. Grootenbore & Hemmings (2007), Mustafa (2009) and Engin, Nuri & Hulya (2010) found that students

from the higher SES groups scored more marks than the low SES groups. The present study is being supported by the above mentioned studies.

Graph 5.1.1.1 showing the mean values of Achievement in Mathematics by the High SES and Low SES secondary level students of Tripura.

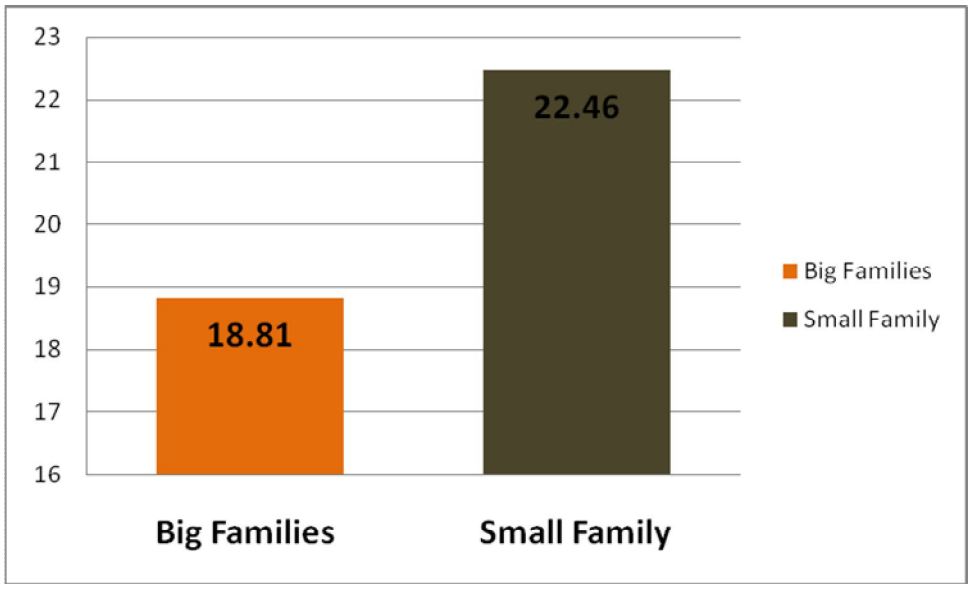


On the contrary, many studies do not show any relationship between these two variables. Rajyaguru (1991), Abdulmajeed (1992), Thampurathy (1994) (Social Position), found low and negligible correlation between the SES and the Mathematics Achievement. They found that below a certain level, the marginal differences in socio-economic conditions as such couldn't contribute to Mathematics and Educational Achievement of the children.

In the same way Bhargava (1980) did find very little rather negligible impact of the SES on the Mathematics Achievement.

In this connection, remark of Harris (1996) cannot be ignored. He found that the students of lower socio-economic status have more knowledge, understanding and application of the Mathematics in comparison with those students who have high socio-economic status because the students of the low socio- economic status get more opportunity of calculation in their day to day life. They have to go to market and they make transactions and hence they become experts in the mathematical calculations and applications.

Graph 5.1.1.2 showing the mean values of Achievement in Mathematics by the students coming from families consisting of many no. of members (Big Family) and Small families in which the number of Families Members are 4 or less.



The graph 5.1.1.2 is showing that the students who are coming from Big & Small families differ significantly with respect to their level of Achievement in Mathematics. And the students of

Small Families is well - off than the students of Big Families with regard to Achievement in Mathematics.

A family exerts powerful influence on the academic achievements of the students. It is said that family is a “unit of kinship” that makes its members strong enough to achieve something in life (UNESCO 1992). UNESCO further divides the family setup into five categories in which joint (usually big in size) and nuclear (small in size) are the important family setups in Indian social perspective. According to this report *Nuclear Family* is the family setup which consists of two generations, whereas *Joint Family* is a family setup which consists of three or more than three generations live together with a single family head. Eliot and Gray (2000) stated that all family setups bear a strong relationship that influences the life patterns of their members. These relationships are primary and secondary in nature. In the nuclear family a primary and direct relationship exists between the two generations living together while the joint family setup has an indirect and secondary sort of relationship with its members. The present study is being supported by the studies conducted by Asia (2008) who explored a different orientation of the effects of home environment. She was of the view that family structure exerts a considerable influence on the achievement patterns of the students. She investigated the effects of joint and nuclear family systems on the

academic achievements of the student and concluded “there is a relationship between family system and academic achievements”.

Similarly, Qaiser, Hassan, Shakir and Shagufta (2012) also examined the effects of family structure on the academic performance of the students. But they took family structure in terms of family size and number of siblings and recommended that small family size and small number of siblings coupled with parents’ participation enhances student’s performance.

Aneesa, Najma and Noreen (2013) too explored the impacts and implications of family dynamics on the adolescents’ development. They were of the view that family communication supports good family functioning. They correlated family communication and family system as the predictors that can gauge family satisfaction among the adolescents. They found that the family satisfaction increases the chances of academic achievements.

More over in small families parental involvement with the child will be more than those who resides in joint and big families and it is obvious that parental involvement with the child in studies will force the child to achieve more even if in the difficult subjects like mathematics. Studies have shown that parental involvement in students’ education, ultimately make the parents enthusiastic about making schoolwork meaningful to students by indicating explicitly

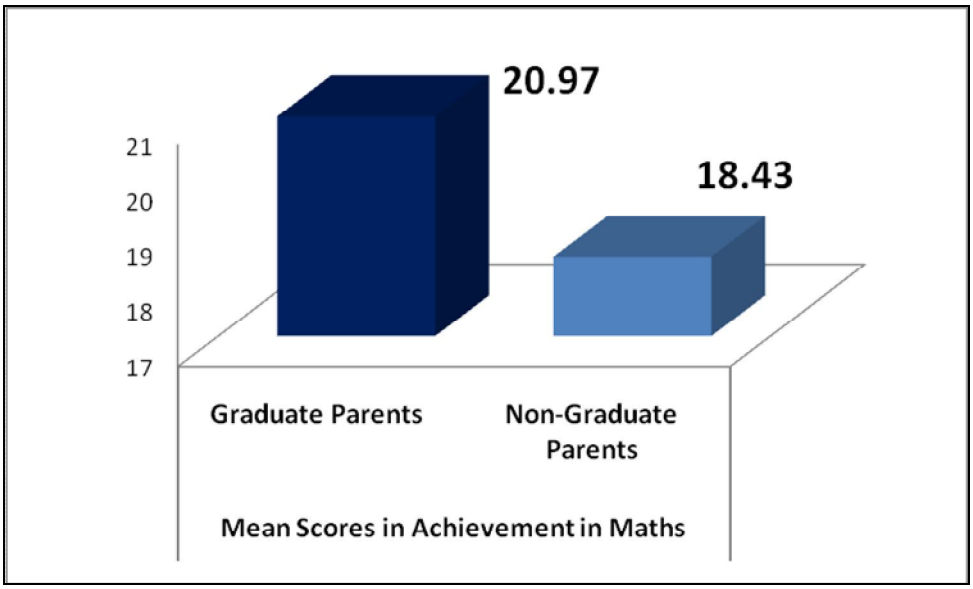
the career or occupational application to life. The pressure of family, parents, friends, and neighbors reinforce students' motivation for academic achievement and increases the probability of success (Toby, 1957).

Therefore it can be assumed that the poor performances by the students who reside in the families in which many people are residing together usually do not get that attention that is required now days to improve the mathematical ability, though exceptional cases are there but exceptions cannot be considered. It is a fact that children can study other subjects with a minimum help but for mathematical ability to be developed they need rigorous care and support which is not possible by the parents in a big families where the father and the mother (who are usually the care giver of the children) had to take care many more of the family and had to fulfill many other demands of the family (Eliot and Gray, 2000), naturally their attention get diverted from their wards and the care and accountability of the students and the involvement of the parents to their wards are much less in a big family, hence it may make the students vulnerable to stress and the result is poor performance in maths.

Along with this the present study also revealed that for the secondary level students of Tripura whose parents are graduate or more in academic qualification and students whose parents are non-

graduates differ significantly with respect to their level of Achievement in Mathematics. The students whose parents are highly qualified are significantly better with regard to Achievement in Mathematics.

Graph 5.1.1.3 showing the mean values of Achievement in Mathematics by the students whose parents are graduate or more qualified and the students whose parents are non-graduates.



It is implied that when the parents will be educated they will understand the importance of education and thus will make their wards concern about it, which will motivate the students to study more. The present finding is supported by the findings by Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh (1987) who purport that parental education level affects parenting style which, in turn, affects children's academic success. Dombrusch et al.

added that families with higher educational levels are likely to be more permissive and less strict in parenting. According to Mullis and Jenkins (1990) and White (1982), parental education shows a strong correlation to students' academic achievement.

Other researchers have debated the correlation of parents' educational attainment and students' academic achievement. DeBaryshe, Patterson, and Capaldi (1993) argued that parental education is directly related to styles of parenting and not student's academic performance. In their study, parents with lower educational attainment used coercive strategies for discipline which, in turn, predisposed their children to antisocial and abnormal behaviors. Such children performed poorly in the higher grades (DeBaryshe et al.).

Melby and Conger (1996) found that a mother's and father's educational attainment link positively to parenting and adolescents' academic performance.

Stevenson and Baker (1987) reported that well-educated mothers who have a predisposition to information about school are more likely than less educated mothers to discuss their child's school performance. The same study showed that well-educated mothers' expectation levels are higher and they have more demands of academic achievement for their children.

Smith (1989) examined the difference between paternal and maternal influence on students' academic performance and educational goals, and concluded that 6th, 8th, 10th grade students were greatly impacted by parental educational attainment. The results of this study found that paternal education had an effect only on students' educational expectation.

Other studies indicate that a father's educational attainment has a direct bearing on children and a mother's attainment has an indirect effect. Oh-Hwang (1994) found that fathers' educational attainment levels had a significant relationship with intelligence and achievement scores.

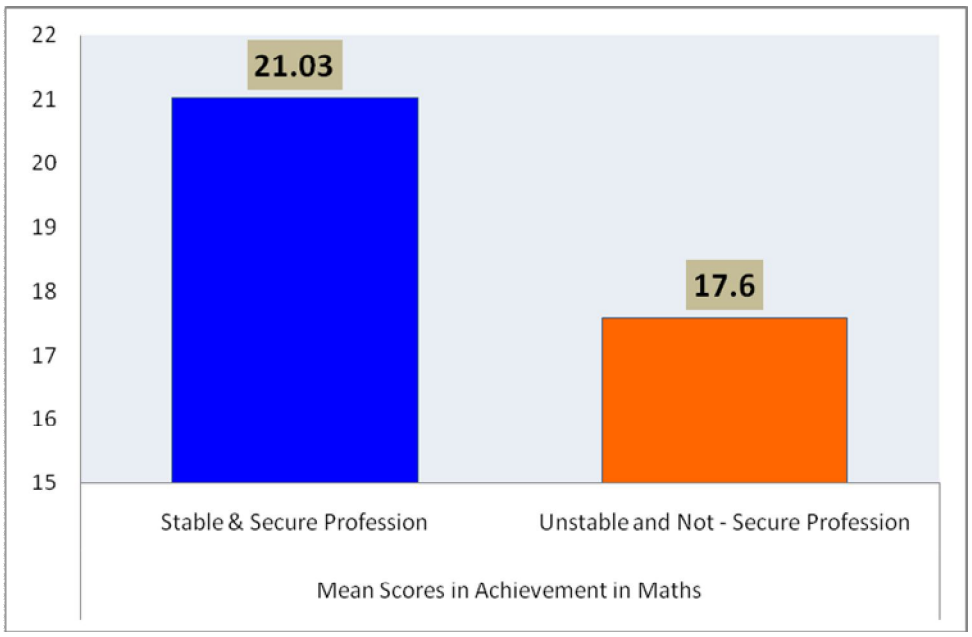
Well-educated parents were more involved in their children's activities, and their involvement led their students to be more self-reliant. Although Oh-Hwang's (1994) cross-cultural study found that parents' educational attainment levels did not have an impact on student academic achievement, educational attainment indirectly affected the psychosocial maturity of the student, which in turn determined levels of achievement.

Conclusions can be drawn that high levels of achievement are indicators for children who had highly educated parents. And there is a chance that highly educated parents would motivate their wards towards education, would help the students to have a realistic aim

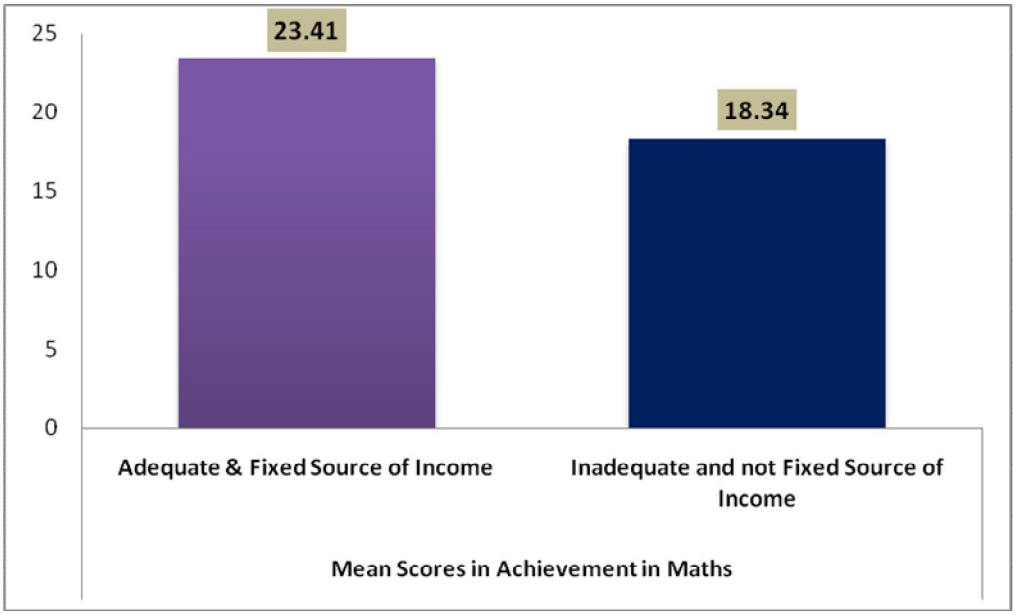
in life, would help their wards to do difficult sums and would show easiest ways to solve different types of mathematical problems which in turn will develop interest towards mathematics.

It is evident in the result and clear in the graphs (Graph No. 5.1.1.4, Graph No. 5.1.1.5, Graph No. 5.1.1.6 and Graph No. 5.1.1.7 that there lies significant difference with respect to the students' level of Achievement in Mathematics whose parents are in secure profession, have adequate & fixed salary, who reside in pucca stable houses and needless to say whose parental monthly income is more i.e. who are from well to do families than those who do not have all these.

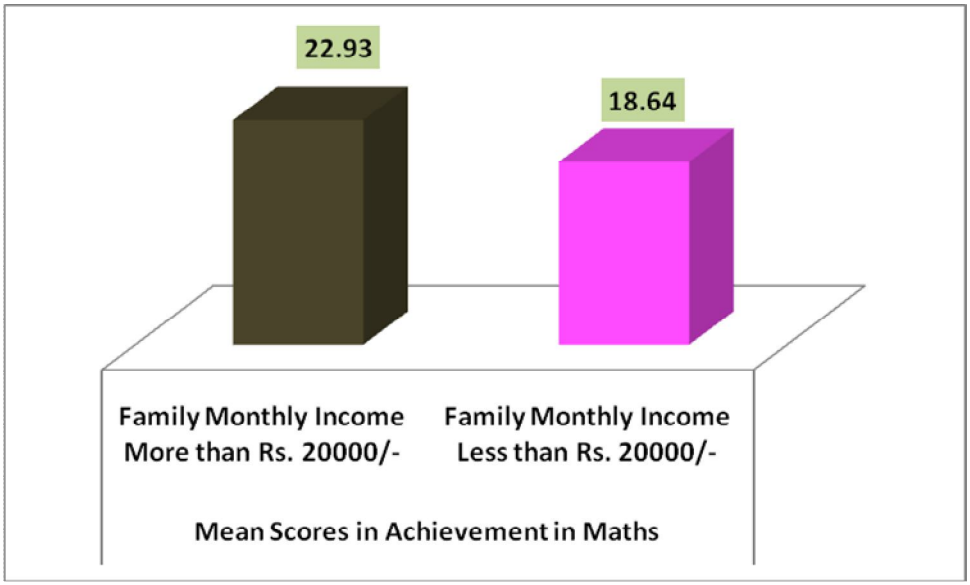
Graph 5.1.1.4 showing the mean values of Achievement in Mathematics by the students whose parents are in stable/secure profession and those whose parents are having an unstable or not secure profession.



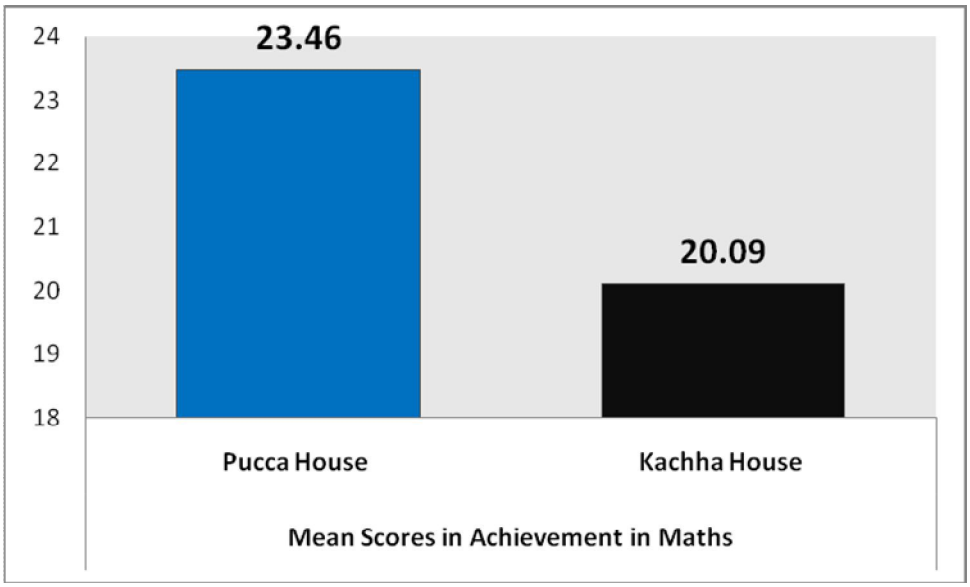
Graph 5.1.1.5 showing the mean values of Achievement in Mathematics by the students whose parents are having Adequate/Fixed Source of Income and those whose parents are not having any adequate Source of Income



Graph 5.1.1.6 showing the mean values of Achievement in Mathematics by the students whose Family Monthly Income is more and those whose Family Monthly Income is much less.



Graph 5.1.1.7 showing the mean values of Achievement in Mathematics by the students who resides in Pucca and Kachha House.



Those students whose parents are in secure profession, are having a fixed and adequate source of income, whose monthly family income is more and who reside in pucca stable houses are significantly better in terms of Achievement in Mathematics.

Students learning are different from time to time. In the modern age the ways of learning or the ways of teaching also changed a lot. Present day learning is technology based. To learn and teach better, both students and teachers must be conscious of novel things. In the learning process the students are the important element in schools. They need to follow and catch what they learn in school and try to apply it back home. To do this, students need to have the material inside and outside schools. It is a fact that schools

can help students and provide them with what they need to reach their academic achievement. But in a developing country like India, it is nothing more than a dream that all school will be resourceful enough to provide this support. However, not each family can help their students outside schools with all the materials or technology they need. As a result, the family income can play an important role in student's achievement. The income of the family, high or low, can have its impact on student's achievement in all their learning years.

In Tripura those who are coming from well to do families like those whose parents are earning a lot and whose parents are in secure profession are getting opportunities to get good education, good school, expensive private tutors specially for mathematics and other technological devices that helps a lot in concept development of different mathematical conceptions.

Another point is that some students from low income have difficulties to understand or learn as fast as others. Their vocabulary can be less and not that much as the other students from different background. Also, their way of learning and understanding are different from others, because their parents may not help them at home. Economically poor families are busy in earning money for food and shelter and for them it is really a matter of luxury or lavishness to get their children in good and expensive schools or to send their wards to private teachers because

Education is secondary to them. More over they do not get time to talk to their children properly even as they are bust at work all the day for their children, and thus they have no time to help their children with homework. These may affect their grades because no one actually helps them in their studies and no one even cares about their success in schools (Jensen, 2013).

By analyzing the coefficient of Correlation between SES and its dimensions and Achievement in Mathematics it is clear that that different dimensions of SES such as Number of Family Members, Educational Qualification of the Parents, Source of Income of the Parents, Monthly Income of the Family, Land Area, House Category as well as the Total SES are positively correlated with the secondary level students' Achievement in Mathematics. And most of the dimensions of SES (except Land Area) are having statistically significant relationship with Individuals' Achievement in Mathematics. Among all the dimensions of SES only one dimension is negatively related to achievement and that is occupation of the parents.

It is widely shown that children brought up in less favorable conditions obtain less education, despite the large financial returns to schooling (Heckman and Masterov, 2005). Thus in the present study we have seen (ref. graph no. 5.1.17) that children who are living in a pucca house differ significantly from those students who

live in kachha house. Indeed there is a large correlation between the education level of parents and their children (Bjorklund and Salvanes, 2011). However the transmission mechanism behind such intergenerational correlations has never been made clear. Krueger (2004) reviewed various contributions supporting the view that financial constraints significantly impact on educational attainment. However, Carneiro and Heckman (2004) suggest that *current* parental income does not explain child educational choices, but that family fixed effects that contribute to *permanent* income, such as parental education levels, have a much more positive role. These studies ultimately supports the present findings.

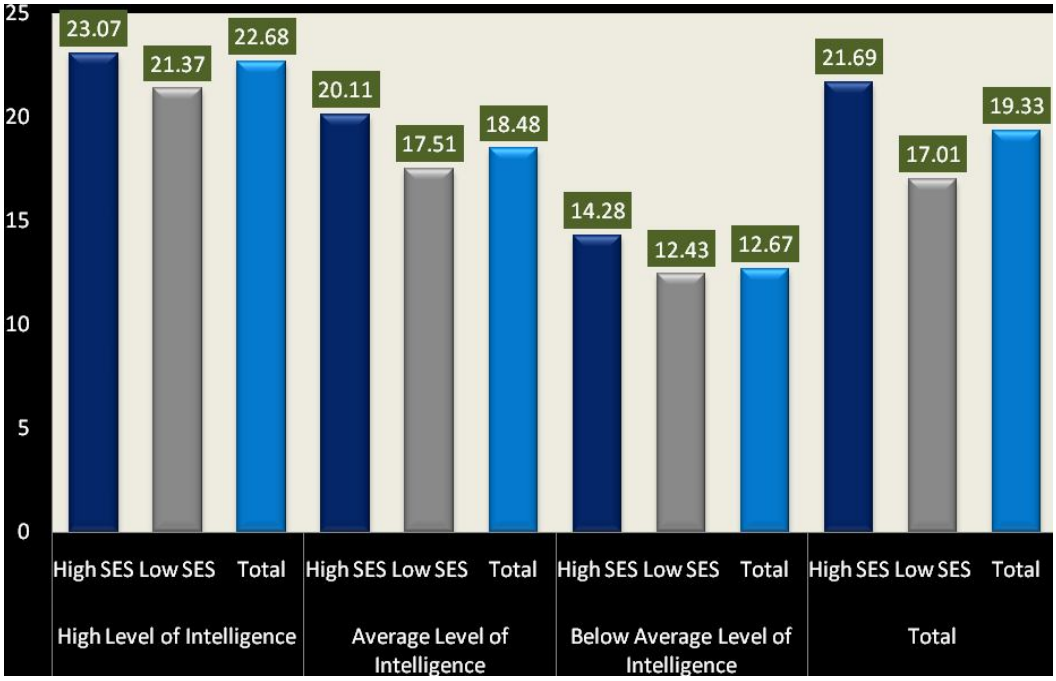
Bernstein (1960, 1961) conducted a study on a large sample of middle and low SES children and hypothesized that lower class culture follows a restricted, linguistic code which hinders the development of vocabulary and keeps thought at a low level of conceptualization. He hypothesized that the lower class child is particularly deficient with calculations due to environmental deprivation. The hypothesis was examined by him and confirmed. This study supports the present findings.

5.2. INTELLIGENCE, SOCIO – ECONOMIC STATUS AND THEIR INTERACTION EFFECT ON ACADEMIC ACHIEVEMENT IN MATHEMATICS

When the Two – Way ANOVA is considered taking Intelligence Socio-Economic Status and their interaction on Achievement in Mathematics into consideration, the result suggests that Achievement in Mathematics differs significantly among the students of 3 different levels of Intelligence. Beside this significant differences are noted on Achievement in Mathematics among the students of different SES background. But Interaction effect between the students' Intelligence and their respective SES has not been found to be significant with respect to Achievement in Mathematics. This study shows that Intelligence as well as SES influences the academic achievement of secondary school students. It means that there is a significant difference between high IQ and low IQ category students on academic achievement. The result shows that academic performance needs intelligence. The students who are able to understand their studies well, grasp it well, and perform better in examinations as compared to low IQ students. The low IQ students need more time to grasp the concept as they have poor learning power and so it is obvious that their academic achievement is low. The findings of Srivastava (1980), Mehrotra (1986), Mishra (1986) also support this result that intelligence positively affects the academic achievement of the students.

The finding of this study is in line with findings of previous studies. Bhushan and Sharma (1981), Annamal (1981) and David and Michal (1984), found that the high intelligence group performs better than the low intelligence group in the Mathematics Achievement, especially in the area of computational skill.

5.2.1 Graph showing Mean values of Achievement in Mathematics of the students by categorising according to the different levels of Intelligence and Socio-Economic Status.



Intelligence occupies a peculiar position in the study of school performance of Mathematics. A vast essay of research literature in Education and Psychology has brought it to common knowledge that intelligence as general ability, is an important contributory factor in the school Achievement. The present study shows that the level of intelligence actually and truly makes a dominant difference

in students' Achievement in Mathematics. The Intelligence as an inherent unified and stable characteristic unequally found among the individuals. It is supposed that difference in learning outcomes in the Mathematics can be easily accounted for. It has been argued that more intelligent pupil is inherently capable of performing better in the examination and earns higher grades than less intelligent pupils. It is a common notion that students of high intelligence obtain better score in the Mathematics' test. Materlis (1970) found that high intelligence made statistically significant gains in Mathematical understanding than lower Intelligence groups. Kaliyan (1997) [Abstract Reasoning, Numerical Ability, Space Relation, Substitution of Symbols], Rajput (1984) and Nagialiankin (1991) [Numerical Ability, Abstract Reasoning, Space Relation], Rajyguru (1991), Lalitha (1992) [Numerical Ability, Abstract Reasoning, Non-language Reasoning], Setia Seema (1992), Sumangala (1998) [Numerical Ability, Numerical Reasoning, Ability to use Symbols, Spatial Symbols and Abstract Reasoning], Patel (1997), Whang (1997) [Reasoning Ability], Arrieta (1998), Segars (1995) [Student Ability] Glutting Joseph (2006) [Verbal Comprehension, Perceptual Reasoning, Working Memory and Processing Memory], Fernandez (2011) [Brain Hemisphericity] found positive relationship between the Intelligence and specific areas of the Mathematics Achievement. Similarly, Das (1986), Patel (1997), Kasat (1991) and Abdulmajeed

(1992) found positive relationship between the Intelligence and the Mathematics Achievement. But the long trail of consistent evidence found only a moderate correlation between measured Intelligence and Scholastic Achievement in Mathematics, gradually led to the acceptance of intelligence, as one of the several determinants. The fact is borne out in our everyday experience which shows that some pupils who impress us as fairly intelligent out of class situations, secure poor marks in the school and college examinations and some who appear dull in such situations, score high in the examinations. Thus although intelligence is a prominent and promising factor for the Achievement, but sometime it may be found that low intelligent or normal intelligent student can secure more marks than the high intelligence students due to some other reasons. Because learning outcome is affected by so many factors e.g. Study habit, home Environment etc. Wilson's (1978) study found that intelligence has no effect on the Mathematics Achievement of the boys and the girls. It has also been observed that the high intelligence students sometimes fail to recall the formulas of the subject matter and hence they fail in the examination. Although such students have a very good understanding of the principles and they can apply those principles very effectively. On the contrary, it has also been observed that a student having low intelligence can cram most of the

principles of the Mathematics but he cannot apply those principles properly.

Further When the data was analyzed on the basis of socio economic status to see the difference between the academic achievements of high and low socio-economic status of the students at secondary school level the findings were that significant difference were there. On the basis of this result we can say that students having higher socio-economic status score high academic achievement in comparison to the students having low socioeconomic status that is because their parents provided all the necessary facilities regarding their children education, health and understand their problems related to adolescent period which affect their academic achievement. This result is supported previous studies such as Kaur (1971) who conducted a study on a sample of 60 boys of class IX in Patiala city and observed a highly significant correction between socio-economic status & scholastic achievement of the boys of higher secondary school. Furthermore Havighrust (1964) concluded a study on high school boys in six different schools in the eastern united stated that the grades awarded to their social status. He found that the lower status boys also get more direct form of punishment. The teacher's reports of counseling with parents are also summarized. According to the author's statements most of the counseling about discipline was with parents of lower

status boys who are influenced adversely by their peer group who are from similar socio economic status and these factors affect their academic achievement.

The study do reveals that Interaction effect between the students' Intelligence and their respective SES has not been found to be significant with respect to Achievement in Mathematics. This is supported by the previous findings of Barger and Hall (1965).

By analyzing the coefficient of Correlation between Intelligence and Achievement in Mathematics it is clear that Intelligence and Achievement in Mathematics is positively related to each other.

There have been considerable number of scientific investigations in the area of academic achievement. It has been revealed that there exists an association between intelligence and academic achievement (Lunge, 1974, Lewis & Adank, 1975; McArdles & Wood cock, 1998; Parker & Benedict, 2002; and Watkins et al., 2007). Therefore, a student with high IQ should also attain higher grades. But at the same time intelligence is not the sole factor in determining the academic achievement. Due to individual differences in intelligence, it does not account for the total variance in academic achievement (Carmical 1964). There are certain other non-intellectual or personality variables such as

creativity, level of aspiration, self-esteem, attitude and achievement motivation which can also help in predicting academic achievement.

Research are also suggested that academic achievement is contributed through creativity (Struthers, Meneci & Schanuetter Perry, 1998; and Hirsh & Peterson, 2008). Level of aspiration is another important determinant of academic achievement. Several Studies have also found significant relationship between these two variables (Kumar, 1972; Tripathi, 1990; Pokhara, 1997; Ngailiankim, 1991; Mohpatra, 2004; Rinn, 2005; and Salimi, 2008).

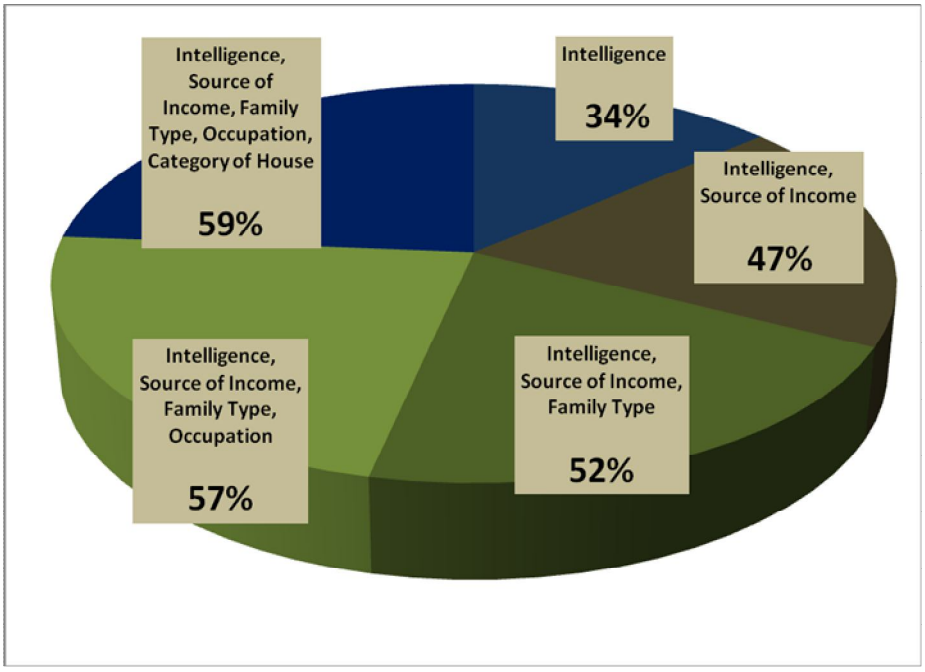
5.3 INTEGRATION OF THE PRESENT FINDINGS

Current findings show that Intelligence and 4 different factors of organisational role stress (Inter Role Distance, Role Stagnation, Role Expectation Conflict, Role Erosion, Role Overload, Role Isolation, Personal Inadequacy, Self-Role Distance, Role Ambiguity, & Role Inadequacy) cumulatively influence sense of subjective wellbeing of the tribals as well as the non-tribals.

The result shows that nearly 57% to 58% variance of the achievement in Mathematics by the secondary level students of Tripura can be explained by the joint effects of the intelligence and four areas of SES (that is source of income, Number of Family Members or Family Type, types of occupation, house category).

Through the present study it is apparent that Intelligence is a fundamental factor which can predict mathematical academic achievement in schools, and has an important role in students' future success (Kuncel et al., 2004; Chamorro-Premuzic & Furnham, 2005).

Graph 5.3.1: Pie chart showing the relative contribution of Intelligence, and different aspects of Socio-Economic Status in the development of Secondary level students' Achievement in Mathematics.



Intelligence actually plays a role on students' ability to absorb new information or new knowledge and to make it as the bases to process and solve a problem. Intelligence has a strong correlation with individuals' cognitive ability such as, thinking, remembering, reading, learning, problem solving, and language usage (Binet, 1905; Zeidner, 1995; Zenderland, 1998). Hence the present study is

supported by the above mentioned findings. The correlation between IQ score and academic achievement (Neisser et al., 1996) varies depending on the policy used. Students who have high academic achievement also have high IQ score, and vice versa (Detterman and Daniel, 1989). Students having high IQ score are likely to perform better in schools than those whose IQ scores are low (Coyle and Pillow, 2008).

Among several sociological factors, SES of the child is one of the factor which requires constant examination. One of the intriguing aspects of students Mathematics Achievement is the SES of their parents. The present study has shown that nearly 25 percent contribution in predicting overall students' achievement in mathematics.

It has become customary of educational research to treat SES as one of the effective factors of the Mathematics Achievement. Numbers of studies have clearly established a definite relationship between the SES and learning outcomes in Mathematics. David and Michal (1984), Leach & Tunnechlifle (1984), Rajput (1984), Singh (1986), Deshmukh(1988), Prabha Rashmi (1992), Setia (1992), Kim(1992), Leiker(1993), Pruett (1997), Segers (1995), Piearey (1996) and Patel (1997) have focused the positive contribution of the SES to the Achievement in Mathematics. Grootenbore & Hemmings (2007), Mustafa (2009) and Engin, Nuri & Hulya (2010) found that students

from the higher SES groups scored more marks than the low SES groups. On the contrary, many studies do not show any relationship between these two variables. Rajyaguru (1991), Abdulmajeed (1992), Thampurathy (1994) (Social Position), found low and negligible correlation between the SES and the Mathematics Achievement. They found that below a certain level, the marginal differences in socio-economic conditions as such couldn't contribute to Mathematics and Educational Achievement of the children. In the same way Bhargava (1980) did find very little rather negligible impact of the SES on the Mathematics Achievement. In this connection, remark of Harris (1996) cannot be ignored. He found that the students of lower socio-economic status have more knowledge, understanding and application of the Mathematics in comparison with those students who have high socio-economic status because the students of the low socio- economic status get more opportunity of calculation in their day to day life. They have to go to market and they make transactions and hence they become experts in the mathematical calculations and applications.

Today, we find an immense increase in the number of problem children. Indiscipline, no compliance, delinquency and character disorders and failure in academic Achievement are increasing by leaps and bounds. The parents do not know how to treat their children so that they may develop themselves adequately. Therefore,

what is the most required thing, today, is that parents should be aware of the influence of the Home Environment on academic development of the children. A glance through the review of related literature reveals that students Achievement in Mathematics and Home Environment are linked together. This has been supported by psychological theories of cognitive development, learning theory of development of Robert Seers and many others. This rationale provides a basis for finding out relationship between the Achievement in Mathematics and Home Environment. Some evidence of this is already available in the research literature. A few researchers have shown that the lack of parental care, lack of control lead to maladjustment and ultimately lead to poor Achievement in Mathematics, while other researchers have shown that the rejection might lead to good social adjustment outside the Home and ultimately lead to good Achievement in Mathematics. According to findings of some researchers physical and verbal control lead to maladjustment and non-compliance which lead to greater degree of anxiety and this anxiety ultimately effects the Achievement in Mathematics. The studies largely demonstrate that Achievement in Mathematics is linked with the Home Environment in various ways. Dolan (1983), McGowan and associates (1984), Medrick and associates (1985), Bonder & his associates (1982), Marjoribank (1983) and Tsai & Walberg (1983) have found in their

studies that the academic Achievement of the children is definitely influenced by the Home Environment, particularly the educational Environment of the Home. Pruett (1997), Jacobbi (1997) *and Chen (2001)* found that the Achievement in Mathematics is significantly influenced by Home physical and educational Environment. In India, so for the investigator knows, not a single study has, however, been conducted which would have shown, which characteristics of Home Environment are related to Achievement in Mathematics and in what manner. Several researches in many other countries have used this rationale. But their findings are not conclusive.

Considering the values of the beta coefficients it might be concluded that among all the predictor variables - Intelligence, Source of Income, No. of Family Members (Family Type) and Occupation are the major significant, positive predictors of the secondary level of students' Achievement in Mathematics while Category of House is the common major significant and negative predictor of students' Achievement in Mathematics

In Sum: It can be concluded that Intelligence and 4 dimensions of SES i.e. Source of Income, Number of Family Members (Family Type), Occupation and House category are the main common predictors of Students Achievement in Mathematics.