

ECONOMICS OF SCHOOL EDUCATION IN KERALA

**Thesis Submitted to the University of Calicut for the
Award of the Degree of
Doctor of Philosophy in Economics
Under the Faculty of Humanities**

By

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February, 2022

CERTIFICATE

This is to certify that the thesis entitled “**ECONOMICS OF SCHOOL EDUCATION IN KERALA**” being submitted by Smt. JEENA P.M, for the award of the degree of Doctor of Philosophy in Economics to the University of Calicut, is a record of bonafide research work carried out by her under my guidance and supervision at the Research and Post Graduate Department of Economics, St. Thomas’ College (Autonomous), Thrissur. The contents of this thesis, in full or in part, have not been submitted and will not be submitted to any other institute or University for the award of any degree or diploma. Plagiarism is checked and found within the permitted limits.

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DECLARATION

The thesis entitled “Economics **of School Education in Kerala**” under the supervision of Dr Sabu P.J, Assistant Professor & Head, Research and Post-Graduate Department of Economics, St. Thomas College (Autonomous), Thrissur is submitted by me in partial fulfillment for the Degree of Doctor of Philosophy in Economics to University of Calicut. I hereby declare that it has not been submitted earlier in part or in full for any degree or diploma to any university.

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ABSTRACT

Household expenditure on education has a crucial role in the human capital formation of a region. Similarly public expenditure on education is also pivotal in determining the educational progress. Pervious research on educational finance seldom enquired the interrelationship between household expenditure and government expenditure on school education in India as well as in Kerala. The identification of the factors that determines the household and government expenditure on education in Kerala is a matter under consideration. More specifically the major goal of the present study is to identify the determinants of household expenditure on school education in India as well as in Kerala. For this purpose, the study has used primary and secondary data. By using these data, both quantitative and qualitative methods has been used to analyse the data. From the analysis, the study found that government expenditure on education has crucial role in determining the household expenditure on school education in India as well as in Kerala. Analysis results reveal that the disparity on expenditure on education is ubiquitous with respect to various parameters such as gender, geography and income. Based on these findings the present study argues that government expenditure on education should be increased to enhance the quantity and quality of school education in India as well as in Kerala.

Key Words: School education; household expenditure; nature and trends; public expenditure; determinants; quality of education; India; Kerala; disparity; school; students; teachers; parents and problems.

ABBREVIATIONS

HSS	Higher Secondary School
IALS	International Audit Literacy Surveys
IMR	Infant Mortality Rate
KER	Kerala Economic Review
KSLMA	Kerala State Literacy Mission Authority
LDC	Less Developed Countries
LP	Lower Primary
MDG	Millennium Development Goal
MDMS	Mid-Day Meal Scheme
MHRD	Ministry of Human resource Development
NCAER	National Council of Applied Economic Research
NFHS	National family Health Survey
NIC	Newly Industrialized Countries
NPE	National Policy on Education
NSSO	National Sample Survey Office
OECD	Organization of Economic Co-operation and Development
OLS	Ordinary least Squares
PCA	Principal Component Analysis
PCE	Personal Consumption Expenditure
AISE	All India School Education Survey
ASER	Annual Status Educational Reports
ASAR	Age Specific Attendance Ratio
BLS	Bhutan Living Standard Survey
BRICS	Brazil, Russia, India, China and South Africa
DISE	District Information System of Education
DPI	Directorate of Public Instruction
EDI	Education Development Index
EFA	Education for All
EGS	Education Guarantee Scheme
FTE	Full Time Equivalent
GAR	Gross Attendance Ratio
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GPI	Gender Parity Index
GSDP	Gross State Domestic Product
HDI	Human Development Index
HE	Higher Education
HELB	Higher Education Loans Board
HS	High School

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Chapter 1

Design of the Study

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1.1. Introduction

The aims and habits of a group of people are passed from one generation to the other through the process of education. It is a fact that illiteracy and percentage of people without schooling have decreased. Education is increasingly becoming international and mass schooling is the recent trend which means that everyone has the right to be educated irrespective of their social and cultural background. Indigenous education also is the recent trend which is the inclusion of indigenous knowledge, models and methods and content within the formal and informal education systems (UNESCO, 2011).

Education is the major determinant of economic growth, employment and earnings and ignoring of it leads to poverty, social exclusion and sustainability

problems within the country (Woessman, 2015). Technology in the field of education is also regarded as an inevitable tool to improve student learning and it provides easy access of course materials, increases student motivation, makes the class interesting and simple and differentiated instruction in the class room. Education can be defined as “the stock of skills, competencies and other productivity enhancing characteristics” (World Economic Forum, 2016). The knowledge learned in school plays a major role in people’s daily lives. Education is a dynamic and comprehensive concept which relates to human life and it is very difficult to interpret in one angle. In a wider sense of the term, education starts from the womb and ends in the tomb. It is the sum total of all life experiences a person acquires throughout his/her life.

The main concern all over the world is not only on quantity of schooling, i.e. the percentage of people who completed primary, secondary and tertiary education but also the quality of schooling which has a significant relationship with economic growth (Hanushek & Kimko, 2000). It is also noted by Hanushek et.al, (2010) that education promotes economic growth with a particular focus on educational quality. The cognitive skills of the population can be positively attributed to long run economic growth than mere school attainment. Education is regarded as a human right since the adoption of the Universal Declaration of Human Rights in 1948. The Right to Education is not only the access to educational provision but also the obligation to eliminate discrimination at all levels of the educational system and to ensure and improve quality of education. Apart from all these efforts, the situation is alarming that there are 258 million youth out of school according to the UIS data for the school year ending 2018. Among this 155 countries guarantee 9 years of schooling and only 99 countries in the world ensures 12 years of schooling. This surely indicates that there are challenges in the right to education like: providing free and compulsory education to all, eliminating inequalities and disparities in education, migration and displacement, privatization and its impact on education, financing of education and quality imperatives and valuing the teaching profession (UNESCO, 2020).

A country’s economy and society is developed through education and it is the milestone of a nation’s economic development. It provides knowledge and skills to the population and is regarded as the best investment for people. Education is defined as the ‘adjustment ability to a changing situation and environment’ (Fazilah et.al,

2012). Education is very important to everyone in the sense that it makes a person a better citizen, it tries to develop confidence, it ensures a bright future, helps in character formation, helps in time management and most importantly gives importance to human values in a person's life (Bharadwaj, 2016). Global literacy rates have been increased, enrollment in primary education gone up, secondary and tertiary education shown drastic growth and global average years of schooling being much higher than hundred years ago. Despite all these achievements, some countries are still lagging behind mainly some Sub-Saharan African countries have literacy rates below 50 per cent among the youth. In Burkina Faso, Niger and South Sudan, literacy rates are below 30 per cent which are at the bottom rank across globe (Roser et.al, 2016).

School enrollment and attendance are the two important measures of educational attainment. Even though, primary school enrollment around the world increased drastically, primary school attendance remains a challenge in many developing countries. The highest level of education that individuals complete is a common measure of educational attainment. It is an educational input and is a mechanism to compare education at various levels. Education at higher levels mainly at the secondary and tertiary levels is becoming increasingly important around the world. The quality measure of education is mainly measured through learning outcome and seems to be higher in richer countries and the differences across countries are very large even among countries with similar income per capita (Dostie et.al, 2006).

The world is expanding its funding for education today and it is clear that over the last two decades, there has been a general increase in the share of income that countries devoted to education. The total amount of global resources spent on education is also increasing in absolute terms. It is clear that, in high income countries households spent a larger share of education expenditures at higher education levels than at lower levels but in low-income countries, this is not the case (Roser et.al, 2016). A school is an educational institution designed to provide learning to the students under the direction of teachers. It moulds their mind, character, behavior and future life. A school is regarded as the first socialization stage and process of a human being which helps them in their decision-making process and enables them to solve the complexities of life. It is the most important foundation pillars on which the

child's personality develops. The school education is the bedrock of every individual's education. All around the world, there are some critical issues relating to school education. They are lack of standards, problems in student learning, problems related to technology, influence of media and politics on students, high stake testing to students, lack of proper school leadership, problems of improper pre service programs to teachers, absence of healthy school climate and the severe problem of poverty among school going students (Bryk et.al, 2010).

India is an emerging country in terms of agricultural and industrial production, service sectors and development in science and technology. Emerging Indian society is closely related with development of education and research. India has shown a tremendous growth in the number of educational institutions. The school education system in India is the largest one meeting the needs of over 260 million young people each year. India, with over 1.5 million schools, over 8.7 million primary and secondary schools, over 8.7 million primary and secondary teachers and more than 260 enrollments, is the largest and most complex education system in the world (Anderson et.al, 2019). Immediately after Independence, the Department of Education was set up under the Ministry of Human Resource and Development (MHRD) with the goal of increasing access and quality leading to the first National Policy on Education in 1968. As per the Millennium Development Goal in 2000, India has made great progress towards achieving universal primary education. Two prominent initiatives of the Indian Government, Sarva Shiksha Abhiyan (SSA) in 2001 and the Right of Children to Free and Compulsory Education (RTE) Act, 2009 have promoted greater importance to access, inclusiveness and quality of education. Many initiatives are undertaken by the government to improve access to quality schooling particularly to the economically and socially disadvantaged sections of the society and government schools are facing thriving competition from private schools (Geeta, 2007).

The Indian school education is also not free from problems. They are the dissatisfaction of students, acute problem of indiscipline among students, caste and gender issues and privatization of education (Zakir, 2010). Unawareness of teachers about teaching methods and their attitude and character also deteriorates day by day. The condition of primary schooling in India is also faced with so many severe issues. They are lack of physical infrastructure, inadequate enrollment, poor retention rate,

high drop-out rate, exclusion of minorities, existence of inequalities, lack of quality and low learning achievements. The mean years of schooling has improved, but India lags behind China and Brazil. Pupil retention rates improved, but the dropout rates in Government schools are comparatively high and enrolment gaps from primary to secondary are matters of concern. Disadvantaged groups also face greater challenges with achievement levels lower and dropout rates high and large urban- rural achievement gap. These challenges are compounded by the structure of the system itself. This involves both centralized and devolved elements, government; private and partly private initiatives interact in complex ways, making it more organic and evolving ecosystem than a single, centrally managed operation. The primary problem of Indian education centers on qualitative and quantitative aspects of education and there is no uniformity in the education system. Every state has different education system imparting education in regional language and English. The present education system is exam-oriented or rote learning. Inequality of education is found not only in the state level and in between rural and urban areas (Desai et.al, 2008).

Kerala is well known for the investment in its own people. The prime focus on the welfare of its citizens was the landmark of Kerala's development history. Kerala's achievement in human development is the basis of its earmarked international fame. Kerala's educational index can be even compared to the developed countries of the world. The Kerala Government has initiated four dedicated missions that focus on education, health, housing for all and a clean environment. The welfare measures of the government always tried to attain a better living standard to its people. The state has attained a very high rate of literacy and schooling. The well-developed education system in the state meets the requirements and demands of all children up to 18 years. Education is in fact the very backbone of Kerala's educational development experience. Kerala has achieved a near zero dropout rate with few exceptions of the population (Economic Review, 2017). Since Independence Kerala has adopted so many welfare oriented policies and continue to invest substantially on education and health. The state adopted so many school educational programs like Samagra Shiksha by merging Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA). The recent development was the Khader Committee Report by integrating primary and secondary education with a regulatory authority to regulate it. The recommendations of the committee were yet to be implemented. At present,

school education in Kerala comes under General education. The main noted change that Khader committee gave importance is the pre-primary education which comes under the purview of school education with major changes.

Even though the status of education is remarkable and there are many landmark achievements in this sector, there are some issues that need to be given much care and attention. The state still requires more improvements to enhance academic quality at school and higher education levels and to make education more inclusive at all levels. The higher education sector in Kerala needs much attention and improvement. The main task of the Kerala government is to focus on the aspect of school education both at the school and higher education levels. There are some keen areas which need immediate interventions like imparting skills for employability through education, improving academic achievement, updating syllabi by paying heed to emerging demands both at the local levels, and designing new training programs for teachers to improve the standard of teaching and learning in educational institutions. Extracurricular activities in the areas of arts and sports, specifically designed programs with professional expertise and assistance are needed to meet the needs of the disabled children. More focus should be centered on the areas like skill education, incorporating technology in the curriculum, programs and support activities that benefits the differently abled and on gender sensitivity (George et.al, 2005).

The flow of students from unaided to government schools during the last two years shows that government initiatives in the school education sector have been widely accepted. The quality enhancement in the public schools of Kerala improved as per the National Achievement Survey. The spread of literacy also played a significant role in the social and economic development of the state. Kerala ranks first in the country in literacy rate shows the economic and social advancement of the state. The infrastructural facilities also improved and enrollment also increased. Kerala's achievements in the field of social development and quality of life are inspiring and encouraging. These achievements are the result of Kerala's high literacy rates among all Indian states and education for a long time. The Kerala society gives more importance to education that schools in Kerala are the nucleus of social microcosm. It is a fact that better education opportunities in Kerala kindles the

aspirations of the people and the main concern is on how to improve the quality of education (George et.al, 2007).

Kerala has achieved a near zero dropout rate with few exceptions of the population. The quality enhancement in the public schools of Kerala improved as per the National Achievement Survey. In improving quality of education and of increasing enrollment, Pothuvidyabhyasa Samrakshana Yajnam played an important role. As per the latest National Achievement Survey Report, the quality of learning in the schools of Kerala has improved significantly and is far ahead of the national average. Kerala State Literacy Mission Authority (KSLMA) has been implementing literacy and equivalency programs which are more relevant in the present context of Kerala. SSA and RMSA were the two major flagship programs to provide physical infrastructure in the schools of Kerala and improving quality of education. Both these programs were given importance to community participation in the management of schools without social, regional, economic and gender barriers. The schemes envisaged universal access, equity and quality, vocationalisation of education and improving and strengthening of teacher education institutions. Samagra Shiksha Abhiyan is also an integrated scheme for school education extending from pre-primary to higher secondary education (Kerala Economic Review, 2018).

The proliferation of unaided schools and the growth of self-financing institutions, inadequate school facilities and pedagogy problems also threaten Kerala's school education. There is an urgent need to study these problems of school children in Kerala. Infrastructural problems like lack of school incentives, low attendance, low teaching activity and low learning achievements also create threats to school education (Anjana et.al, 2005). All these problems throw light on the importance of studying school education scenario in Kerala. The identification of determinants of enrollment and learning outcomes are necessary to formulate policies. The Education Development Index (EDI) of National Council of Educational Research and Training (NCERT) composed of four parameters like access, infrastructure, teachers and outcome is also highest in Kerala, but the state is not perfect in the case of all the four sets of indicators. Education quality is deteriorating in Kerala despite all these tremendous achievements. Learning outcome is also quite disappointing. The present study intends to examine these aspects of education in the state.

The parameters like near total literacy, free and universal primary education, low drop-out rate at the school level, easy access to educational institutions, and gender equality in access are positive in the state. In these respects, Kerala is often compared not only with the other Indian states or developing countries but also with some of the developed countries. It is no doubt that, Kerala is rich in terms of quantity of education but lacks quality due to structural inefficiencies (Nair, 2003). So, these aspects of quality and quantity should be studied by using more recent data and scientific methodology. This is a major concern of the present study. Besides this the inputs and outcomes of school education also will be analyzed. In a nutshell, the present study examines the educational problems of school children in Kerala. It will provide valuable insights into the educational scenario of Kerala.

The remarkable success that Kerala has achieved in social development is reflected in the high physical quality index, high literacy rate and high life expectancy education is regarded as a catalyst agent of the growth and development of the state. The quality of education in Kerala and has been showing a decline due to financial constraints resulting from quantitative expansion of sector. Secondary education which serves as a bridge between primary and higher education and higher education as the weakest segment of school education where a good deal of wastage in the form of drop outs and failure take place. Government of Kerala is increasing its outlay on education over the past five years.

The primary school teachers of Kerala have shown a favourable attitude towards activity-based teaching strategy (Ambily, 1999). There is a strong urge from the part of primary school teachers of Kerala towards the usage of computers in classroom. The study also gave importance to the teaching strategy adopted by school teachers and the pupil's achievement and the lack of familiarisation among the teachers about the use of effective and new instructional strategies. The quality, equality and inclusion are the central focus of school education (Shivakumar et. al, 2010).

In Kerala, where the quality of public schools and teaching was found to be fairly good, the preference of private schools by the parents is also predominant. Public schools in Kerala have more racially and ethnically diverse student populations. How successful students in schools does not depend on whether they attend public or private schools, but their abilities, attitudes, skills and expertise of

teachers, quality of learning environment which is the joint responsibility of students, teachers, school administrators, parents, larger communities in which schools are located and policy making at the local, state and federal. There has been a steady increase in the private school enrollment and learning levels are not improving. Parents shift their children from government to private schools because the latter provide better training outcomes (Anjini, 2001; Willhma, 2005). The state of Kerala stands out as the least unequal in terms of educational opportunities. Education inequality perpetuates social and economic inequality (George et.al, 1999). More education has not meant more equality and general upgrading of skills has coincided with growing within country income inequality.

1.2. Review of Literature

The economic aspects of education have acquired greater importance in recent times. Economists have realized the importance of education to develop a workforce that is capable of generating knowledge driven economic growth. Economics of education focuses on the determinants of education and its impact on individuals, societies and economies in which they live. Education helps in the creation of human capital and also gives opportunities for improved efficiency, equity and quality of education. The study of economics of education also relates education with labour market outcome, education as investment, inequality in education, demand for education, expenditure on education, education production function, educational programs, policies, gender in education and the problems related to education.

1.2.1. Education and Economic Development

Greaney et.al (1996) studied the learning outcomes of education development. Information on student achievement in key curriculum areas are collected on a regular basis that has helped to monitor changes in achievement over time in such countries as Chile, France, Ireland, Thailand, the United Kingdom, and the United States. By presenting objective findings on achievement, a national assessment can provide evidence relevant to assertions made frequently by employers, industrialists, and others that educational standards are falling.

Ozturk (2001) examined the role of education in economic development. Effect of education on labor productivity, trade, technology, health, income distribution and even family structure is examined. The study used empirical evidence

both at micro and macro levels. At micro level increase in earnings is associated with additional years of education, rate of return and high level of education. From macro perspective, new growth theories endogenize technical progress by incorporating some of the same effects emphasizing education as well as learning. It is found out that education provides a foundation for economic development. Education increases nation's productivity, technological changes, increases trade and per capita income. Thus, investment in human capital is needed for economic development.

Mukherjee (2007) in his study gave importance to the role of education in economic development. Divergence between the private and social rate of return from education is the rationale for intervention by the state in ensuring equity in opportunity across the population. Based on the insights from 'New Growth Theories' the study advocated the case for public expenditure on education. Utilization of resources, its efficiency and its outcome in the form of quality of service delivery is crucial for achieving higher levels of human development both in India, and other countries of the developing world.

Gouda et.al (2014) analyzed education as the basic requirement for human development. The differentials and factors associated with school dropouts in India are studied. Based on the data from National Family Health Survey-3, it was found that only 75 percent of the children in the age group of 6 to 16 years were attending school. Parental characteristics also play a significant role in determining school education. The dropouts among the children belonging to illiterate parents were four times higher than that of the literate parents. It was also observed that if parents were not working, the possibility of dropout among their children was relatively high. The study suggests for the considerable improvement in the economic status of households and change in the social attitudes of parents to achieve the goal of universalisation of school education.

Mitra et.al (2018) studied the impact of education on economic development. The study analysed contribution to economic development in three ways: rate of return analysis, human resource approach and education and economic growth analysis. Education has got a major multiplier role in economic analysis growth. The study also found out that there is lack of research on the contribution or impact of education on the economic development of the country. There is need for further

research in education and policy makers should increase public expenditure on education at all levels, elementary, secondary and higher education levels.

1.2.2. Education Production Function

Greenwald et.al (1996) made an analysis of universe of education production function studies to utilize meta-analytic methods to assess the direction and magnitude of the relations between a variety of school inputs and student achievement. The 60 primary research studies aggregated data at the level of school districts were used for the study. The analysis found that resources were positively related to student outcomes, with effect sizes large enough to suggest that moderate increases in spending may be associated with significant increases in achievement. The study relates with trends in student achievement from the National Assessment of Educational Progress and changes in social capital over the last two decades.

Nahar (2010) studied the effects of school resources on students' academic achievement. The relationship between educational inputs and outputs is analyzed. For this individual level panel data of students in Tasmania is calculated. Data is collected from Department of Education, Tasmania. The study exposed the fact that school resources affect student's achievement and there is strong correlation between educational inputs and outputs.

Jagero (2013) analyzed the extent to which school inputs affect quality of education in day secondary schools in Kenya. Proportional sampling is used to select schools and simple random sampling to select teachers and students. Linear multiple correlation and Software Packages on Social Sciences is used. The study came to the conclusion that school inputs affect quality of education and among this most important educational input affecting educational quality is involvement of Parent Teacher's Association.

Jagero (2014) studied the extent to which educational inputs affect educational quality. The study used input-output relationship and multiple and step wise regression analysis as the method of study. It also used SPSS to determine regression coefficients. The results of the study show that there is negative relationship between teacher-pupil ratio and student achievement. There is highest correlation between PTA's performance in determining student's performance.

1.2.3. Educational Programmes and Policies

Leclercq (2003) analyzed the impact of Education Guarantee Scheme (EGS) on primary schooling in Madhya Pradesh. It presents the results of a field study report of public schools in Betul and Dewas districts of Madhya Pradesh. The study aims to link between education and rural society and on the development of primary schools. While the results may not be representative of all of rural Madhya Pradesh, the study provide an accurate picture of the situation in two areas viz adivasi villages and Dalit hamlets.

Dreze et.al (2003) studied of Mid-Day Meals Scheme (MDMS) as an initiative that could have a major impact on child nutrition, school attendance and social equity. The study gave importance to quality issues which need urgent attention for the proper functioning of mid day meal programmes. Universal and nutritious mid-day meals would be a significant step towards the realisation of the right to food. Mid-day meals have much to contribute to the well-being and future of Indian children. With adequate resources and quality safeguards, mid-day meals can play a major role in improving school attendance, eliminating classroom hunger and fostering social equity.

Gandhi (2007) studied an overview of school education in India. India's educational system is being placed in international perspective and compares it with BRIC countries and especially with China. India performs well with Pakistan & Bangladesh but lags behind China and BRICS (Brazil, Russia, India, China and South Africa) countries, especially in secondary school participation and youth literacy rates. The study examines schooling access and schooling quality. In India, secondary school enrollment is low, learning achievement level is low, teacher absenteeism is high and quality is low. The study also points out the role of private schooling and finds out that it is cost efficient and effective in imparting learning. The study also discusses on some of the public initiative programmes like Sarva Shiksha Abhiyan, Mid day Meals Programme & Para teacher Programme. The impact of these programmes is also analyzed on children's learning and its cost effectiveness is also measured. It also suggests more public commitment to school education to make it more effective.

Shekhar(2014) studied the problems in the achievement and the implementation of the MDMS scheme. A major drawback found in this scheme is spending teaching time; insufficient basic infrastructure of school. Parents,

Panchayaths and local authorities are negligible in this scheme. Such place, access to MDMs for Dalit children is hampered by the fact that the meals are served primarily in dominant caste hamlets. There are also instance of discrimination. Recently the death of 23 children due to poisonous food served to them under MDMs has put a question mark on this scheme. Hence, to better implementation of this scheme it would be necessary to take measures.

Singh et.al (2015) studied the impact of Mid-Day Meal Scheme on attendance, enrollment rate and dropout rate of primary school children in Uttar Pradesh. MDM and Non-MDM schools are selected by cluster random sampling method. Mid-day-meal is one important policy and the main intention of it is to lower the cost of schooling and also to improve child nutrition to foster learning, thereby increasing returns to education. In the study it is seen that MDM would continue in the state for better results and has a positive impact on enrollment and attendance and retention rate to be improved. This scheme will help to change the attitude of people towards government schools and helps to uplift educational status.

1.2.4. Determinants of Educational Attainment

Levy (1971) studied the variations in the dropout rate among primary schools by using data from 42 less developed countries to explore the relationship between various social, political, economic and educational variables. Regression analysis of the data was also used. The study reveals that school systems with high rates of repetition also have high rates of repetition among primary cycle. This suggests that automatic promotion may reduce educational wastage. High fertility rates and a high degree of social tension in a society also deter the attainment of universal literacy, while increased urbanization and development of communications systems increase school continuation. The economic returns to education are important determinants of school continuation.

Haveman et.al (1995) studied the factors that determine and influence the choices made by male and female students with regard to their studies and future occupations. The study gave importance to human capital factors in education. In the present study they consider the role played by gender, individual career aspirations and school characteristics in young people's subject choice in the education system of the Canary Islands (Spain). Specifically, the results indicate that, as a rule,

Humanities are chosen by female students and Science & Technology are chosen by men who study in urban private schools in which the careers teacher is part of the management team, and their main occupational aspiration is a managerial position.

Filmer et.al (1998) studied the determinants of school enrolment and educational attainment in India by using household wealth, gender, and village and state effects. The study uses the National Family Health Survey (NFHS) data collected in 1992-93 to estimate the determinants of child (aged 6 to 14) enrollment and educational attainment of a recent cohort (aged 15 to 19) in India. The analysis produces five major results. First, using an index of assets as a proxy for household wealth shows enormous gaps between the enrolment and attainment of children from rich and poor households. The study concludes with an examination of the state specific policies that could account for such differences.

Dreze et.al (1999) studied the determinants of school participation in rural north India, based on a recent household survey based on school characteristics. School participation, especially among girls, responds to a wide range of variables, including parental education and motivation, social background, dependency ratios, work opportunities, village development, teacher postings, teacher regularity and midday meals. The PROBE survey collected household data in 122 randomly-selected villages of Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and Himachal Pradesh. These five north Indian states account for about 40 per cent of India's population, and a little over half of all out-of-school children. The main finding is that the causes of educational deprivation in rural India, is mainly due to several key determinants of school participation such as household resources, parental motivation, the returns to child labour, and school quality.

Filmer et.al (2001) analyzed the determinants of child enrollment and educational attainment of children in India. NFHS data collected in 1992-93 is used as the source of the study. Identical questionnaires for each state are used. Sample size for each state is 1000. There are 88000 households and 500000 individuals as sample for collecting data. The study dug out a wide gap between enrollment and educational attainment of children in India. Wealth gap, gender and physical characteristics affect enrollment and educational attainment in India.

Tansel (2002) estimated the return to education among Turkish professionals residing abroad. Economic instability in Turkey, prior intentions to stay abroad and

work experience in Turkey also increase non-return to education. Female respondents showed a lesser return to education. The study investigates the determinants of school attainments of boys and girls in Turkey. Although high levels of enrollments have been achieved at the primary school level for both boys and girls in much of Turkey, substantial regional differences remain. The study examines the determinants of educational attainments at the primary, middle and high school levels.

Rowe (2003) analyzed the ‘factors’ affecting students’ experiences and outcomes of schooling throughout their primary and secondary years-especially socio-cultural and socioeconomic factors. The study gives importance to ‘real’ effects from recent and emerging local and international research on educational effectiveness. The quality of teaching and learning provision is by far the most salient influences on students’ cognitive, affective, and behavioral outcomes of schooling regardless of their gender or backgrounds.

Ogawa (2004) analyzed the importance of public resources for education. In many developing countries, one of the major challenges facing public institutions is the efficient and equitable reallocation of public resources. This study addresses the issue of how public resources are employed efficiently and equitably in Zambia as a case study. Educational outcomes are measured by school life expectancy, the expected number of years of formal education. Specifically, school life expectancy is calculated as the sum of age specific enrollment rates for primary, secondary and tertiary education.

Chakrabarti et.al (2006) analyzed the determinants of expenditure on education using empirical analysis. Using a panel of 15 major states from India, the study examines patterns and changes in the allocation of government funds for education, particularly higher education, over a span of two decades, before and after the introduction of the new economic policies. State real per capita income, is found to significantly enhance educational expenditure at the aggregate, elementary, secondary and higher levels. It is evident that privatisation exerts a negative significant impact on expenditure on higher education.

Dostie et.al (2006) studied the importance to attainment of universal basic education as the elusive goal in many developing countries. It examines the determinants of school enrollment among children in Uttar Pradesh and Bihar, two large north Indian states. In addition to individual-and household-level influences,

they consider the role of village-level contextual effects on the school enrolment decision. The results suggest that enrollment is increasing in parental education as well as wealth and that village caste composition and aggregate deprivation also influence individual enrolment decisions.

Kotwal et.al (2007) studied the drop out in Kathua District of Jammu and Kashmir State. Dropping out of school is a well-documented social problem and often present daunting circumstances for adolescents. Dropping out is also associated with delinquency, and low school achievements. The sample was selected from four villages of Kathua Tehsil namely; Kharote, Janglote, Barwal and Govindsar. The sample consisted of 50 dropout girls and one of their parents. A snowball sampling technique was used for the selection of sample. To get information for the present study an interview schedule was framed. The data obtained was compiled and analyzed using simple numbers and percentages. The main causes of dropping out of girls from school in rural areas were reluctance of parents and participation in domestic activities, parent's poor educational status and problem of financial constraints.

Desai et.al (2008) analyzed private schooling in India and its effects of private school enrolment on educational quality. It is analyzed that Private schooling in India has expanded rapidly in the past decade. The study is based on data from the recently collected India Human Development Survey. The results suggest that children in private schools have higher reading and arithmetic skills than those in government schools and students from lower economic strata are more likely to be physically punished in government schools. The impact of private school enrollment on children's verbal and mathematical skills was analyzed by using ordinary least squares regression.

Mukherjee et.al (2008) studied the importance of parental education in schooling and decision of child labor. The study used household level data from National Sample Survey Organization (NSSO) of India, the 55th (1999-2000) and the 61st (2004-05) rounds and shown that even with a significant wage incentive for schooling of urban children, the school dropout rate and child labour incidence are not small over this period. The parents' level of education plays an important role in reducing this tendency; thus establishing the linkage between social and human

capital outcomes in the family. Using a pooled data they also analyzed the changes in the impact of parental education on these decisions between 1999-2000 and 2004-05.

Okumu et.al (2008) analyzed the socioeconomic determinants of primary school dropout in Uganda with the aid of a logistic model analysis using the 2004 National Service Delivery Survey data. The Objectives were to establish the household socio-economic factors that influence dropout of pupils. Various logistic regressions of primary school dropout and model estimation were used. The analysis of the various coefficients was done across all models. The results showed the insignificance of distance to school, gender of pupil, gender of household head and total average amount of school dues paid by students in influencing dropout of pupils. The importance of parental education and household size and proportion of economically active household members in influencing the chances of pupil dropout and the importance of government in many areas are studied.

Nambissan et.al (2010) studied the importance to choice and private schooling, and the role that transnational advocacy networks play in managing and driving these flows. They explore a set of network relations between advocacy groups in the UK and the USA and local 'choice' advocates in India. Individual policy entrepreneurs are active in making these connections and circulating ideas. A complex of funding, exchange, cross-referencing, dissemination and mutual sponsorship links the Indian choice and privatization advocacy network, and connects it to other countries in a global network for neoliberalism.

Huisman et.al (2010) analyzed the role of socio-economic and cultural factors and characteristics of the educational infrastructure on primary school enrolment using data for 70,000 children living in 439 districts of 26 states of India. Most of the variation in educational enrolment (around 70%) is explained by factors at the household level, of which socio-economic factors are most important. In urban areas schooling decisions are hardly influenced by supply-side factors. In rural areas, however, these factors do play an important role. A major finding is that in rural areas inequalities between socio-economic status groups are lower if more schools and teachers are available.

Reddy et.al (2010) examined the high dropout rates as one of the biggest challenges to fulfill the right to education in India. The magnitude of the problem of dropout is studied and critically reviews the evidence on some of the commonly cited

reasons for dropout, including poverty, limited access to credit, child labor, and children's and parents' lack of interest in education. It is also studied that persistently high dropout rate should be located in the absence of a social norm in terms of children's right to education; and that this is reflected in the lack of systemic support available for children at risk of dropping out.

Sabates et.al (2010) examined the policies to improve school progression and the measures to reduce the numbers of children dropping out of school as critical factor to Universal Primary Education (UPE). The study clearly throws light on the fact that the number of children enrolled in school has increased over time. Dropout rates differ significantly among countries. Using data from Demographic Health Surveys on the population of 16 and 17 year olds, assuming that by this age children should have completed a cycle of primary school, dropout rates differ significantly among countries.

Basumatary (2012) studied the importance of various factors responsible for School dropout such as poverty level, distance of school from home, transport facilities, quality of teachers, social environment and many other factors. The study is a quantitative analysis of school dropout rate. The data for school dropout rates and many other variables across Indian states and UTs are considered for the session 2009-10. The study found statistically significant impact of state poverty level and the rural populations. More generally, reasons of school dropouts can be classified into some broad categories like school-centric, student -centric and parent-centric.

Kumar, et.al (2014) examined the variation in young people's educational and occupational attainment by parental characteristics. It also examines the relationship between parental education and household wealth on schooling. The study uses population survey data. Ordinary Least Squares (OLS) is used to understand the effect of independent variables on dependent variables. Bivariate analyses are the method used in the study. Educational level of children varies directly with the educational level of parents. Thus economic status of the household plays an important role and predicts child schooling.

Nongkynrih (2015) analyzed the determinants of schooling in India. The nature of school attendance for children in the age group of 5-14 years and the gender disparities prevalent are being explored. It also examines the household and religious characteristics that affect schooling. Econometric estimates by Maximum Likelihood

Probit Analysis are also used. The findings are: Education of the household mainly affects children's school attendance. Expansion in education level and economic wellbeing can reduce existing differences of children sending to school. Cultural, social and religious beliefs also affects school attendance especially that of girls.

Nidup (2016) studied about the determinants of School enrollment in Bhutan. It examines how household income determines school enrollment. Bhutan Living Standard Survey (BLSS) 2012 is used as the method of study. Data is collected from the school aged population of 6-12 age groups. The study came to the conclusion that household income matters for school enrollment. It is suggested that income redistribution from poor to rich is needed to increase student enrollment.

1.2.5. Investment in Education

George (1993) analyzed the comprehensive update of the profitability of investment in education at a global scale. The study gave importance to primary education, as it continues to be the number one investment priority in developing countries. The main findings of the study highlight the importance of investment in education as a very attractive investment opportunity in the world today - both from the private and the social point of view.

Barbara et.al (2002) studied the positive externalities of education on a macro-economic view point. The study is an extensive summary and a critical discussion of the empirical literature on the impact of human capital on macro-economic performance, with a particular focus on UK policy. The main finding is that human capital increases productivity. The most pressing methodological problems are the measurement of human capital; systematic differences in the coefficient of education across countries (in particular between developing and developed countries) and reverse causality.

Palanigounder (2002) studied the estimates of returns to education in wage employment in India by gender, age cohort and location (rural-urban) in 1993-94, using data from a large national level household survey. The estimates show that the returns to education increase up to the secondary level and decline thereafter. There are substantial gender and rural-urban differences in the returns to schooling. Investment in women's education, particularly at the middle, lower secondary and higher secondary levels, is more profitable than that for men in the study period.

Psacharopoulos et.al (2004) analyzed the returns to investment in education based on human capital theory. The study estimated returns to education from a wide variety of countries, including over time evidence, and estimates based on new econometric techniques, reaffirm the importance of human capital theory. Comparisons were also made based on the latest estimates of different countries.

Agarwal (2011) estimated the returns to education in India using a nationally representative survey. The study estimated the standard Mincerian wage equation separately for rural and urban sectors. To account for the possibility of sample selection bias, Heckman two-step procedure is used. The findings indicate that returns to education increase with the level of education and differ for rural and urban residents. Family background is an important determinant affecting the earnings of individuals. Returns differ considerably within education groups across different points of the wage distribution.

Fulford (2012) studied high returns to education exists in India at an individual level by building aggregates from micro-data. Better educated female cohorts do not live in households with higher consumption. The study also uses econometric models to estimate returns to education. Comparing state returns to a measure of school quality, it does not seem that poor quality is responsible for the low returns.

Draxler (2014) studied the international importance of investment in education and pointed out the importance of sound education system to achieve social cohesion, equity of opportunity and equality of access in a society. The study focused on the importance of education as a right by playing an important role in development process and also gave importance to the increasing role of private sector and education as the next international development agenda. The study also listed out some milestone reports in the education sector and emphasized the concept of Education for All (EFA).

Ojala (2016) examined the relationships between the amount of investment in education and economic growth. It examines the impact of physical capital formation in economic growth and investigates the contribution of labor input on economic growth. The study used so many methodological aspects to analyze data like Time series technique to investigate the relationship between government education expenditure per worker. Data is collected from Kenya National Bureau of Statistics &

World Bank. Multiplicative Cobb-Douglas Production function, Unit Root and Granger Causality Tests were also used. The study is based on descriptive statistics. Correlation perspectives of growth theories were also used as the method of study. It is found out that education expenditure per worker has a positive and significant impact on economic growth both in the long run and short run. There is positive relationship between investment in education and economic growth.

1.2.6. Expenditure on Education

Roy et.al (2000) attempts to estimate the normal expenditure levels with regard to expenditure on education of fifteen large Indian states for the year 1997-98. Cross section data of 6 years were taken and a comparative analysis of normative and actual expenditure levels had been made. The study attempts to analyze education expenditure at three levels: primary, secondary and higher education. The main finding of the study is that richer states spend more on social sector education than the poor states.

Tilak (2002) examined the extent of household expenditure on education, the elasticity of household expenditure on education and the determinants of family expenditures on education by using the NCAER survey data on Human Development in rural India (HDI) (1994), supplemented by other sources. It has been found that there is nothing like 'free' education in India. Household expenditures on education are sizeable; households from even lower socio-economic background-Scheduled Castes/Tribes, low income groups-all spend considerable amounts on acquiring education. It is also found that households do not discriminate much against spending on girls' education. Among the determinants of household expenditures, household characteristics particularly household income and the educational level of the head of the household are found to be important. Other important determinants include demographic burden of the household (size of the household), caste and religion and gender.

Al-Sammari (2003) analyzed the relationship between public education spending and education outcomes at the primary school level in developing countries. The study explores this relationship from a cross-country perspective before concentrating on three African case studies-Botswana, Malawi and Uganda.

The research finds that the link between resources and education outcomes are

weak and that the achievement of the MDGs and EFA targets will require more than just increases in expenditure on primary education. The composition of resources and institutions that govern the use of these resources plays a central role in translating resources into better schooling outcomes. Improving the public expenditure management system is also important in strengthening the link between public spending and education outcomes.

Alex (2005) studied Kerala's social development and its high literacy level and achievements in the sphere of education. Female education and universal enrolment in schools is commendable in Kerala. A substantial chunk of the state government's expenditure is earmarked for the educational sector. The data regarding expenditure on education can be obtained from the Demand for Grants and Detailed Budget Estimates of the Government of Kerala. The Demand for Grants and Detailed Budget Estimates of a particular year contains the budget estimates for that year, the revised estimates for the previous year and the actual expenditures for the year prior to that.

George et.al (2005) studied the dynamics of change in educational sector of Kerala. The impact of political and social forces on Kerala's educational system is analyzed. It also examines the trend in educational finances of the state. The trends in expenditure of education and analysis of budgetary expenditure of education are calculated. The study came to the conclusion that Kerala's education system requires updating and modernization and requires mass restructuring. State's education is shifted from inclusive to exclusive.

Tilak (2006) studied a comparative study of the two educationally backward states and low performing states like Andhra Pradesh and Rajasthan along with Bihar, Uttar Pradesh and Madhya Pradesh. The study discusses some of the important aspects relating to public expenditure on education, comparing and contrasting the situation in Andhra Pradesh and Rajasthan. It reviews the trends in public expenditure on education in general and elementary education in particular, during the last two decades. It also analyses inter functional allocation of resources, sources of funds for elementary education, changing centre-state responsibilities in financing education, the contribution of external aid to education and the magnitude of household expenditure. The study finds out that sustained levels of expenditure on education are important for educational development.

Bhattacharya (2012) analyzed the extent to which free education reduces household's burden of private expenditure on education. The analysis was done with the objective of finding out whether free education has any importance in reducing household expenditure on education. The analysis has been done for different levels of education, different MPCE quartiles and at state levels by taking data from NSSO level of education wise distribution & expenditure. The study found out that education is paid for by all households irrespective of receiving free education or not. Cost of education is also comparatively low to those who receive free education.

Bhakta (2014) examined the impact of public expenditure on health and education. The linkages between health status of children and their educational achievements in India are studied by developing a simultaneous equation model between health and education of children, and public expenditure on these sectors. Three stage least squares technique is applied. The results show that bad health status among children, captured by high Infant Mortality Rate, is responsible to have lower enrolment rates and high dropout rates in primary level. Moreover, public expenditure on elementary education has greater impact on enrolment as compared to dropout rates. Dropout rate declines with a decrease in IMR. Thus, public spending has to be increased in the nutritional program and education sector at primary level to have a better future in terms of health status and educational attainments and essentially to reduce dropout rates as compared to enrolment rates.

1.2.7. Demand for Education

Hunt (2008) analyzed an in-depth review and analysis of literature on dropping out from school. The study is about why and how children drop out from school. Here drop out is regarded as a process where a range of supply-demand factors interact to influence schooling access. It looks at literature in relation to household, community and social contexts of dropping out, as well as school supply and practices. It also explores what research is saying precursors to dropping out and factors which may influence retention. The study also looks at the financial circumstances of households and how this might be linked to dropping out.

Nernman et.al (2010) studied the determinants of demand for education during Tanzanian Governments and its importance to Universal Primary Education (UPE) in 2000s. He analyzed whether demand for education is driven by direct and

opportunity costs for education. The study used existing empirical and theoretical literature and standard Mincerian wage regression to estimate returns to education. The findings of the study are: abolition of school fees led to an increase in enrollment within agricultural households. Returns to education no way affect demand for education. Educational choices are affected by the views held by others within the community.

Motiram et.al (2011) analyzed the demand or supply aspects of schooling in rural India. The study is an attempt to analyze the poor human capital investment by rural Indian families as a demand or supply factor of schooling. It is being examined by school attendance and total human capital investment time using the Indian Time Use Survey 1998-99 and 7th All India School Education Survey (AISES). The supply side factors are school quality and availability and demand side factors are household characteristics that affect poor human capital investment in India. The study gave importance to the role of high-quality schooling in India to bring about public policy in human capital formation which is essential for sustainable development.

1.2.8. Cost and Financing of Education

Tilak (1993) studied the analytical and descriptive review of major issues in the financing of higher education in India. The various aspects of financing of education are critically examined. The study is based on data collected from various education departments and the returns to investment in education are estimated. The study stressed the importance of government spending in education and experimentation in higher education serves as the policy changes to revamp the education sector.

Bray (2002) attempts to study the cost and financing aspects of education in the developing member countries of the Asian development Bank (ADB). The study looks into the aspects of public and private expenditures on education and stressed the importance of investment in education. The cost sharing in education is also explained and analyzed. Privatization of education and international aid for education is also analysed.

Bray (2002) studied and analysed with particular focus on groups of countries, and on the Asian and Pacific region as a whole. It studies about scale of education and the volume of expenditures, noting the balance between government and non-

government inputs, and commenting on changes over time. The study turns to matters of unit costs and their determinants. It presents information on differences between and within levels of education, and discusses the policy implications of these differences.

Nair (2004) studied the cost of school education in Kerala, assigned by KRPLLD to the Kerala Statistical Institute along with another study on morbidity. Both these studies involved collection of primary data from households spread over the whole state. A common approach in designing the survey and covered the one-year period February 2000 to January 2001. The survey covered the whole of Kerala. A stratified two-stage sampling design was adopted for the survey. In the rural areas, Panchayath wards formed the first stage sampling units. Households in the selected wards formed the second stage units. In the urban areas, the first stage units were the Municipal/Corporation wards and households within the selected wards were the second stage units.

Nampoothiri (2004) studied the cost, efficiency, and managerial aspects of schooling. Certain operational definitions and concepts are used in the study. An attempt is made to evaluate performance by levels and management. The educational performance is conceived of as internal efficiency. The internal performance of the educational system refers to the capacity of the system to turn out students in the most effective way. For the general evaluation of the performance, the physical facilities, the quantity and quality of teaching, the services rendered, and the conveniences provided are taken into consideration.

Lewin (2008) analyzed the strategies for sustainable financing of secondary education in Sub-Saharan African countries. Secondary schools in Sub-Saharan Africa (SSA) enroll just 25 million of the region's 93 million children of secondary-school age-and many of them attend irregularly and fail to complete lower-secondary schools. For the region as a whole, less than one-third of the cohort enrolls in upper-secondary grades. In 35 countries the secondary gross enrolment rate (GER) is less than 40 percent; in 15 countries it is less than 20 percent. Educational reforms are needed to expand enrolment in secondary schooling in affordable ways.

Efanga et.al (2014) studied the relationship between the component of educational costs and the demand for private secondary education in Akwa Ibom State. Three null hypotheses were formulated to direct the study. Six hundred students

and thirty principals were drawn, through proportionate stratified random sampling technique. Data collection was through structured questionnaire. Data were analyzed by using Pearson Product Moment Correlation Statistics and population t-test. The findings show that there was a statistically significant relationship between educational costs and the demand for private secondary education in Akwa Ibom. Based on the findings, recommendations were made including that government should award scholarship to students in private secondary schools as this would reduce the effect of high cost of private schools on the youths of low socio-economic status.

Ziderman (2016) studied the innovative financing mechanisms adopted in many national training systems. The study aims at correcting shortcomings of conventional training finance systems in order to better meet labor market needs, improve both the quality and relevance of training provision and to contain training costs and also suggesting measures to improve the training systems for better standards.

Rani (2016) analyzed the financing of higher education in India in the context of recent trends by examining the influence of various factors like enrollment growth, growing private sector and youth population. The Education Policy of the Government of India initiates so many programmes for cost of education. But in India, government funding for higher education is neglected. The number of scholarships and the amount devoted to scholarships also declined. The study analyses the importance of state involvement in covering the cost of education. The study gave importance to fees, grants, scholarships and student loans in the context of increasing cost of higher education by including family characteristics based on secondary data sources.

Psacharopoulos et.al (2018) estimated the return to education by reviewing the latest trends and patterns based on 1120 estimates in 139 countries from 1950 to 2014. The study found out that private returns to higher education increased and social returns to schooling remain high. Investment in education increase future productivity.

1.2.9. Quality of Education

Hanushek et.al (2007) analyzed the impact of quality of education on economic growth. It is also an attempt to understand the implications of educational policies for improved educational outcomes. International Audit Literacy Surveys (IALS), data on economic growth and student cognitive skills (1960-2000) were used. The measure of quality of education by simple average of Mathematics and Science Scores are used. The study came to the following findings: quality of education lead to economic growth. By simply increasing educational spending does not ensure improved student outcomes. There is low educational attainment in developing countries and teacher quality strongly influences student outcomes

Rao et.al (2008) analyzed the relationship between educational quality, economic growth and educational inequality. The study explore the relationship between school quality, namely at primary education and secondary education, and economic growth. Educational inequality at primary and secondary education would be measured with using the concept of education Gini-coefficient. Using GDP as the dependent variable and regressing it with Gini-coefficient of primary education and secondary education would be able to show which level of education inequality is significant in explaining the economic growth of a country. Using Malaysian data, for the last 20 years, the relationship between education inequality of different level of education and the economic growth would be postulated.

Owings et.al (2012) analyzed Turkey's human capital needs through expanded educational access and equality and teacher quality issue undermining its goals. It uses Economic Modeling to relate cognitive skills assessed by Programme for International Student Assessment (PISA) and other international measures. The major findings are: Turkey made improvement in educational access, but more to be done and there is challenge of creating high quality educational system. Teaching quality and better training policies lead to the development of functional and cognitive skills and better educational outcome.

Mcloughlin (2013) studied the effectiveness of private schools in providing quality education, reaching disadvantaged groups, supporting or undermining equality (including between girls and boys), affordable for the poor and financially

sustainable. The study synthesizes the best available evidence on these questions and reach into the idea that private schools operate at low cost by keeping teacher salaries low, but their financial situation may be precarious where they are reliant on fees from low-income households. While there are isolated cases of successful voucher and subsidy programs, evaluations of international support to the sector are not widespread. Addressing regulatory ineffectiveness is a key challenge. Emerging approaches stress the importance of government and private providers to produce better education outcomes for the poor.

Vyas (2014) studied the low learning outcomes in primary schools across India, specifically in reading and mathematics based on All India surveys such as ASER and the Planning Commission Evaluation Report. Significant dropout rates exist at the higher level of education, with only a fraction making it to the tertiary level. The low quality of education at a primary level threatens to leave a large part of India's future workforce uneducated and unproductive. Too many students are not learning basic skills such as reading and numeracy in primary school and then dropping out before completing secondary education.

Hill et.al (2014) studied the Review of education achievements since 1990s and the current state of educational quality. The importance of private education and the opportunities and challenges for access and quality were also being studied. It also discusses the areas where reforms are needed to improve quality of schooling. Domestic Learning Surveys and Review of Education Reforms are used as the method of study. The study came to conclude that public and private spending has increased, enrollment increased and at the same time gender disparities reduced. Academic workforce issues need attention. Stronger quality assurance, better incentives and more effective regulation are needed. There is an urgent need to increase resources to improve instructional quality.

Panigrahi et.al (2014) studied the state wise status of elementary schools in rural India based on different subjects. It also focuses on assessing the level of quality education by students based on their achievement test on different subjects. The secondary source is based on ASER data. Random sampling is used for selection of villages and rural households. Principal Component Analysis (PCA) is used to test the state wise educational achievement. It is found out that status of elementary education

is not the same for all states. Suitable educational policy is required for the development of high educational achievement in rural areas.

Ardiente et.al (2015) made a comparative analysis on the quality of education between Least Developed Countries (LDC) such as South Africa and Newly Industrialized Countries (NIC) such as Taiwan. The factors that will stand in the way of development of South Africa and the success of education in Taiwan were also being examined. Review of National Policies of Education and data collected from 1960 to 2000 of Taiwan's population were the methods of study. It is found out that there is lack of government support in South Africa along with its unequal economic conditions. Thus government contribution in the form of big push is needed in South Africa to have a good educational system. On the other hand, government's contribution is high in Taiwan and its education sector is good.

Pritchett (2015) analyzed the indirect relationship between learning outcome, school enrollment and schooling completed. The study stressed on the role of existing systems of education which have some elements promoting learning as an objective. The study builds an accountability framework of actors and the four design elements of accountability (delegation, financing, information and motivation) to emphasize that effectiveness in promoting learning requires systems of education that are coherent, in two ways. The study also advocates for the importance of reforms in educational system to improve learning outcomes.

Bhattacharji et.al (2015) analyzed the relationship between school ranking and school quality. The study shows that when school rankings are published, the quality of schools increases and it is in no way affected by the home background of their students. The school rankings based on subject performance will help the school principals to evaluate the working of their school and can make corrections regarding it. The study uses correlation coefficient as the method of the study and demonstrates two types of school ranking, subjective and objective rankings and concludes by advocating the policy of school rankings for improving the school accountability and raising standards.

Varghese (2015) made an attempt to analyze the initial phase of massification of higher education in India, with around 30 million students, 0.70 million teachers and 36 thousand institutions in 2012-13. The country has the second largest higher

education sector in the world. The study analyzes the trends and the challenges posed by massification. These challenges of massification include concerns for ensuring equity, improving quality, mobilizing funding, managing and regulating the system. It seems the role of the state will be changing from financing and managing institutions to developing a framework for regulating the system to ensure equity in access and quality in outcomes.

Vijayakumari et.al (2015) analyzed the performance of Quality Education Pupils Right (QEPR) of schools in Thrissur district. It also tries to assess the satisfaction of stakeholders on QEPR programme. Collective case study method is used. Data is collected from teachers, parents and students using structured questionnaire. Interview with the head of the institution, SSLC results from 2006-2012 were assessed to find out the quality of education imparted by schools. As a result of implementation of QPER Programme, there is an increase in pass percentage. Infrastructure in schools also improved. Students and parents are supportive of the QEPR programme.

Thangeda et.al (2016) made a study to find out what degree students are satisfied by educational system and resources in terms of quality. It also provides recommendations on how to solve the challenges faced based on students perspective about educational quality provided by the institution. It also tries to find out if quality education and employability are interrelated. Well-structured questionnaire is used to collect data from students. The study found out that quality of education has an impact on employment and students are satisfied by the quality of education provided by the institution.

Vijayakumari et.al (2018) studied on the area of uneconomic schools. The study intended to find out physical conditions of uneconomic lower primary schools, to identify the factors causing the schools uneconomic and to provide suggestions for improving the conditions. In the descriptive study, two questionnaires and one interview schedule were used for collecting information. One questionnaire is used for collecting information from parents and another one is used for teachers and the interview schedule is used for interviewing Head Masters. It uses normative survey method and random sampling method. The investigator tried to analyze the conditions of thirty schools by taking a sample of thirty Headmasters, fifty teachers and 100

parents of sixteen Educational Sub Districts of Malappuram District. The physical conditions of the uneconomic schools were satisfactory in most of the schools.

Madani (2019) analyzed the education quality based on the goal of Education for All policy. The impact of educational policy contributed to educational development is being studied. Literature reviews to find out the studies associated with educational quality between the time period 1990-2000 is used and came to the conclusion that good educational policies lead to quality of education. The policies of Education for All should be suited to each country's political, economic, social and cultural situations.

Garira (2020) studied a proposed unified conceptual framework for quality of education in schools. System theory was used to help in understanding quality of education. Inputs, outputs and processes are framed on the basis of conceptual framework which helps the various education stakeholders to understand their role in improving the quality of education in schools. The study also gives importance to the interconnectedness of various levels of education system to realize educational goals. The study thus provides a scientific explanation of the study of education quality in schools.

1.2.10. Educational Inequality

Blanden et.al (2003) studied and explored changes over time in higher education (HE) participation and attainment between people from richer and poorer family backgrounds in UK. They used longitudinal data from three time periods to study temporal shifts in HE participation and attainment across parental income groups for children who attended university in the 1970s, 1980s and 1990s. The key finding is a highly policy relevant one, namely that HE expansion has not been equally distributed across people from richer and poorer backgrounds. Rather, it has disproportionately benefited children from relatively rich families. The expansion in HE acted to widen participation gaps between rich and poor children. It also used non- parametric estimations and econometric model allowing for studying the sequential nature of education choices.

Magnuson et.al (2004) analyzed the effect of participation in child care and early education on children's school readiness as measured by early reading and math skills in kindergarten and first grade. Using data from the Early Childhood

Longitudinal Study, Kindergarten Class of 1998-1999, they analyzed the effect of participation in child care and early education on children's school readiness as measured by early reading and math skills in kindergarten and first grade. It is found out that the effects are largest for disadvantaged groups, raising the possibility that policies promoting preschool enrolment of children from disadvantaged families might help to narrow the school readiness gap.

Kochar (2007) studied of schooling policies and schooling inequality. The Government of India has long made access to primary schools a priority. The empirical analysis of this study shows that habitation size determines the number of teachers and the availability of schools in scheduled caste and tribe (SC/ST) habitations, and that these in turn determine schooling attainment. Thus, school location policies, through their effect on school quality, imply that the benefits of school access differ across regions, but also across castes within any given region.

Desai et.al (2008) examined the changes and relationship between educational attainment and educational inequalities. The data from a large national sample survey of over 100,000 households for each of the four survey years such as 1983-84, 1987-1988, 1993-1994, and 1999-2000 and focus on the educational attainment of children and young adults aged 6-29. The results showed that there is a declining gap among dalits, adivasis, and others in the odds of completing primary school. Such improvement is not seen for Muslims, a minority group that does not benefit from affirmative action. There is little improvement in inequality at the college level.

Jacob et.al (2008) studied the relationship between school size and schooling inequalities. Combining panel data with an instrumental variable strategy which enables to control for cohort and school specific determinants of quality which may otherwise bias estimates of the effect of classroom attributes, they find that multi-grade teaching significantly reduces schooling achievement and contributes to caste based schooling inequalities. The methodology also allows obtaining estimates of the effect of classroom size and caste composition.

1.2.11. Gender and Education

Filmer et.al (1998) studied indicators of gender disparity by using data assembled from the Demographic Health Surveys from a large number of countries and the National Family Health Surveys from the individual states of India. The study

suggests a simple model for the relationships between poverty, schooling and gender inequality. It argues that poverty-at both national and household levels – is associated with an under-enrollment of school-age children. Using detailed case study materials from two African countries, evidence is presented to show the variety and extent of adverse cultural practice which impede the attendance and performance of girls at school, relative to boys. Gender inequalities in schooling outcomes, measured in both qualitative and quantitative terms. The study argues that, as incomes (national and household) rise, so enrollments will tend to follow.

Balatchandriane (2007) analyzed gender discrimination and economic development in Asia. The study analyses that denial of access to education of women in Asian countries lead to lack of modernization among Asian countries. The primary, secondary and tertiary sectors of education were studied. Gender inequality in education was studied by a number of methods like Gender Parity Index (GPI) and indices in the Annual Human Development Report and World Development Report of the World Bank. A cross country wise analysis of Asian countries was also made and focus was made on South Asia, South East Asia and East Asia. Countries with same level of economic development may also vary in terms of gender inequality.

Gandhi (2002) analyzed the correlation between gender gap and educational attainment in India. Differential treatment of sons and daughters by parents is a potential explanation of the gender gap in education in developing countries. This study empirically tests this explanation for India using household survey data collected in urban Uttar Pradesh in 1995. Educational enrolment functions are estimated and selectivity-corrected educational attainment functions, conditional on enrollment. The analysis suggests that girls face significantly different treatment in the intra household allocation of education.

Huisman et.al (2010) studied the role of socio-economic and cultural factors and characteristics of the educational infrastructure on primary school enrollment using data for 70,000 children living in 439 districts of 26 states of India. Most of the variation in educational enrollment (around 70%) is explained by factors at the household level, of which socio-economic factors are most important. In urban areas schooling decisions are hardly influenced by supply-side factors. In rural areas, however, these factors do play an important role. Interaction analyses show that effects of factors at the household level depend on characteristics of the context in

which the household lives. A major finding in this respect is that in rural areas inequalities between socio-economic status groups are lower if more schools and teachers are available.

Lang (2010) examined a study of planning and design of educational facilities from a gender perspective. The study explores how to adopt a gender perspective in the analysis of educational facilities. It argues that social relations are influenced by the physical environment, and that social and physical aspects are often interlinked. The study reflects on how men and women use educational spaces, drawing on examples of completed school projects. It then explores gender-related issues and related research, and considers how to incorporate a gender perspective on educational facilities.

Hussain (2010) studied the gender differences in probability of completing school education across regions in India. A Gender Disparity Index is calculated using National Sample Survey Organization unit level data from the 61st Round and regional variations in this index analyzed to examine the hypothesis that gender disparity is greater in the North, comparative to the rest of India. This is followed by an econometric exercise using a logit model to confirm the results of the descriptive analysis after controlling for socioeconomic correlates of completing school education. The Fairlie decomposition method is used. The results reveal that gender disparities are greater in North India, for total and rural population, and in Eastern India, for urban population. The 'residual effect' often referred to as disparity-is higher in Eastern India, irrespective of the place of residence.

Pahalke et.al (2014) analyzed a study which gave importance to single sex education rather than co schooling in determining students' performance and attitudes. The study used meta-analyzed data from 184 studies, representing the testing of 1.6 million students in Grades K-12 from 21 nations, for multiple outcomes (e.g., mathematics performance, mathematics attitudes, science performance, educational aspirations, self-concept, gender stereotyping). Based on mixed-effects analyses, uncontrolled studies showed some modest advantages for single-sex schooling, for both girls and boys, for outcomes such as mathematics performance but not for science performance. Controlled studies, however, showed only trivial differences between students in SS versus CE. Results from the highest quality

studies, then, do not support the view that SS schooling provides benefits compared with CE schooling.

Fousia et.al (2016) studied the perception of students on gender bias in the existing curriculum. The study used both quantitative and qualitative design like survey and case study approach. Data were collected through questionnaire, classroom observation and Focus Group Discussion Sessions (FGDS) with teachers and students. The results of the study showed that gender bias existed in school curriculum and it led to the curbing of girls' future career aspirations.

Sivasankar et.al (2016) studied the psychological differences between boys and girls. The major purpose of this study is to find out anxiety, adjustment, emotional intelligence, study habits and attitude difference between adolescent boys and girls (14-16 years). For this purpose data was collected from 60 high school students; 30 boys and 30 girls. The tools used were State and Trait Anxiety Test (STAT), Academic Anxiety Scale, Global Adjustment Scale, Emotional Intelligence Scale, and Test of Study Habits and Attitudes (TSHA). The results indicate that there is no significant mean difference in general anxiety and academic anxiety between boys and girls.

1.3. Research Gap and Research Problem

The school education in Kerala is a study of importance as it helps in the economic development of the state. The studies in school education seldom address the problems and key areas like determinants of education, quality of education, expenditure on education and the problems related to school education. There are some studies to deal about these aspects of school education. However, the present study has identified some of the research gaps. The studies in the area of school education are very limited. There are not much studies relating to the economics of school education. The determinants of expenditure on school education and the outcome of school education are the areas which are of keen interest and importance yet to be explored. The demand for education, the quality of education, cost and financing aspects of education, educational programmes and policies of the government are the key areas the study deals with.

The studies in the area of expenditure on education are extremely scanty. The present study is a mere attempt to analyze the school education scenario of Kerala in

a different perspective. It tried to find out important aspects of school education like expenditure on education both public and household and its determinants, quality of education and the problems related to school education and tried to find out an overall picture of school education in Kerala.

There are barriers or deterrents that affect school educational attainment. The deterrents or constraints of school educational attainment are a multi-dimensional concept encompassing a number of variables like individual, family or home related problems, cost concerns, worth, relevance or quality of available educational opportunities, lack of motivation and self-confidence in the learner. There are not much studies relating to the school educational attainment, determinants and deterrents and the ways to find out the learning outcome of students. These impediments in fact affect the quality of school education in Kerala. The proper link between school education and college education is very important as it determines the future of every student.

1.4. Research Questions

Based on the problem of the study and the research gap found, the present study attempts to find answers to the following research questions:-

1. What is the trend of expenditure on school education in India and Kerala?
2. What is the level of disparity with respect to expenditure on school education in India and Kerala?
3. What are the determinants of household expenditure on school education in Kerala?
4. What is the level of student satisfaction on school education in Kerala?
5. What are the problems related to school education in Kerala?

1.5. Objectives of the Study

Following are the specific objectives of the study:-

1. To examine the trends of expenditure on school education in India and Kerala.
2. To compare the level of disparity on expenditure on school education in India and Kerala.

3. To identify the determinants of household expenditure on school education in Kerala.
4. To analyse the student satisfaction of school education in Kerala.
5. To examine the problems related to school education in Kerala.

1.6. Methodology of the Study

The rationale for the various aspects and indicators considered and analyzed with respect to the present title “Economics of school education in Kerala” is given in the conceptual framework in section 1.6.1. The general methodology of the study is given in section 1.6.2. Analytical framework of the secondary data is given in chapter 5 in section 5.7. Sampling framework and analytical framework of the primary data is given in chapter 6 in sections 6.2 and 6.3 respectively.

1.6.1. Conceptual Framework

Economics of School Education: The present study in the title “Economics of school education in Kerala” mainly examines the following concepts and data: They are: (1) public expenditure on school education in India; (2) government expenditure on school education in India and in Kerala; (3) household expenditure on school education in India and in Kerala; (4) disparity on household and government expenditure on education in India and in Kerala; (5) student satisfaction on school education in Kerala; (6) parental satisfaction on school education in Kerala and (7) problems of school education in Kerala. Through these selected parameters the present study examines the various aspects of ‘Economics of school education in Kerala’.

Expenditure on School Education: The present study accounts and examines government expenditure on education and household expenditure on education by using both secondary and primary data.

Student Satisfaction: The present study examines the level of satisfaction of students on school education with respect to various selected indicators. It is treated as a proxy of quality of education.

1.6.2. General Methodology

In the field of education, researcher often uses action research, an interactive method of collecting information that is used to explore the present school system. This

method is very popular in the field of education as it is very much suited to the teaching and learning aspects of school education. The study is based on both primary and secondary data. The researcher uses both descriptive and analytical approach as the methods of study. Secondary data have been collected from various sources like Annual Survey on Educational Reports (ASER) data, Government publications, SSA reports, Department of Education, Government of Kerala, Census data, Economic Review, Directorate of Public Instruction (DPI), District Information System Of Education (DISE) reports published by the University of Education Planning and Administration (NUEPA), journals, magazines, articles and internet.

Primary data were collected through two sets of structured questionnaires to parents and students. The study also relies upon interview and field survey. Brief informal conversations were also held with parents, students, teachers and officials in the field. The data collected by survey were analyzed by using structural and appropriate statistical tools. Random sampling is being used for the study. Schools were randomly selected for the purpose of data collection. The schools were studied with the approval of concerned school authorities. A structured questionnaire is being used to collect information from students, households, teachers, authorities and other educational experts to analyze the data. The information is gathered from the sample of households and schools from the study area. List of good practices that is popular in school education system has been prepared on the basis of questions asked during the field study. With the help of household survey data it is possible to find the effects of education on individual earnings. Household surveys are used to examine the impact and quality of education on the future of their children. The time taken for the study and analysis of data may be two to three years. The study also make use of so many statistical tools and techniques like Mean, standard deviation, one sample t test, independent t test, ANOVA, post hoc Test, quartile deviation, cross tabulation and chi-square tests. Co-variance Based Confirmatory Factor Analysis (CB-CFA) and Structural Equation Modelling (SEM) techniques are also used in the study.

1.7. Major Terms Used

- (1) **Cost of Education:** The total amount of money a student needed to attend an educational institution including fees, other expenses, housing and food for the period of enrolment, books, stationery, transportation and all other expenses related to education.

- (2) **Determinants:** A determining factor or an element that determines the nature of something. It is a factor or cause that makes something happen or leads directly to a decision. It refers to determining or deciding something.
- (3) **Disparity:** It is the condition of being unequal and is regarded as a noticeable difference. It usually refers to a difference that is unfair. Economic disparities exist among ethnic groups, there is disparity between what men and women earn.
- (4) **Drop out:** To leave something without completing it. In education it means leaving school or college before you have finished the study or what you intended to do.
- (5) **Early Childhood Education:** Provision of learning and educational activities with a holistic approach to support children's early cognitive, physical, social and emotional development and introduce young children to organized instruction outside the family context to develop some of the skills needed for academic readiness and to prepare them for entry into primary education.
- (6) **Educational Attainment:** The highest level of education an individual has successfully completed. This is usually measured by the highest educational programme successfully completed which is certified by a recognized qualification.
- (7) **Education Development Index:** It is a component of human Development Index published every year by the United Nations. This is used to measure the educational attainment by using GDP index, life expectancy index, GDP per capita and life expectancy.
- (8) **Education Programme:** A coherent set or sequence of educational activities designed to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period. Within it, educational activities may also be grouped into sub-components variously described in national contexts as 'courses', 'modules', 'units' and/or subjects.
- (9) **Enrollment:** The total number of students on roll in a programme as on reference date, regardless of age.
- (10) **Expenditure on Education:** Amount of money spent for education. It included public and household expenditure. Public spending on education includes direct

expenditure on educational institutions as well as educational related public subsidies given to households and administered by educational institutions. Household expenditure is the expenditure made by parents for their children.

- (11) Financing of Education: The governmental and organizational processes by which revenues are generated, distributed and expanded for the operational and capital support of formal schooling.
- (12) Household Expenditure on Education: It is the total amount of money that a household spends on different educational activities.
- (13) Human capital: The collective skills, knowledge, or other intangible assets of individuals that can be used to create economic value for the individuals, their employers or their community. Education is an investment in human capital that pays off in terms of higher productivity.
- (14) Investment: An investment is an asset or item acquired with the goal of generating income or appreciation. It also means allocating money in the expectation of some benefit or return in the future. Education is regarded as an investment which creates future benefits for the individual and the society.
- (15) Literacy: It is the ability to read and write by a person in simple sense. Literacy is also mentioned as a competence or knowledge in a specified area. In a wider sense, it means the ability to read, write, speak and in a way to communicate effectively with others.
- (16) Parents: A person's father or mother or the caretaker of a child. A parent is a mother or father who is responsible for the care provision and in the growth and development of a child.
- (17) Primary Education: It is the education from the first class to fifth class typically designed to provide students with fundamental skills in reading, writing and mathematics and to prepare them for upper primary education from fifth to eighth class.
- (18) Public Expenditure on Education: This refers to the component of education expenditure that comes from national, regional and local government units to finance and/or produce educational service.

- (19) School: An educational institution where learning spaces and learning environment are provided to the students under the direction of teachers. In simple terms, it is an institution for instruction in a particular skill or field.
- (20) Secondary Education: Education beyond the elementary grades provided by high schools and higher secondary schools. It is a school level which intermediates between elementary school and college level.
- (21) Students: A person who is formally engaged in learning in a formal institution, say a school or college. A student is a person one who studies or observes and an attentive and systematic observer of learning through educational institutions.

1.8. Significance of the Study

School education is the basic foundation of a student's learning process. If it is not properly moulded it will seriously affect the future of every child. It is unfortunate and a matter of serious concern to all stakeholders that school education in India is not properly organized and planned. Ideally speaking, up to 10+2 level, education should be compulsory and free for the economically weaker sections of the society. But regrettably, this is not done. Academic achievement is the vital concern of educators, psychologists, learners as well as parents. Right from the time when a child starts his or her academics, the dilemma of choosing the good quality education becomes the primary concern of parents.

The present study of school education expected to touch each and every aspects of society. The study directly and indirectly benefits the society, students, policy makers, higher education sector, employment sector, household sector and teaching community. The study attempts to find out that quality of education leads to sustainable development. It can also contribute to the formation of a new theory. It also benefits the policy makers in the formulation of new policies which will benefit the society in achieving high economic growth and formation of good citizenship. The study benefits the students to improve their standards. The quality of higher education is also met if the problems in the school education are solved. The teachers will also benefit if there are structural changes in school education. The study also expected to make an improvement in academic literature by contributing to the world of academic literature. It is no doubt that lack of quality that school children acquired during school life add to the severe problem of drop out and failure at their higher education.

Thus the present study is a simple and sincere attempt to touch the important aspects of school education by correlating the input and outcome of school children in Kerala.

1.9. Limitations of the Study

The study of school education is a very broad area and it covers so many important aspects and for the convenience and simplicity of the study, if any important aspects is avoided it will be meaningless. The study involves data collection from the major stakeholders of education like parents, students, teachers and school authorities. Two questionnaires were used for data collection and its preparation and data collection was a difficult task. The data analysis involves so many tools and techniques and its interpretation and analysis also seem to be difficult. The overall overview of school education in Kerala can be realized only from the viewpoints of all these four stakeholders of school education. The study is mainly based on qualitative research and the analysis of the data sometimes involves descriptive research which is not an easy task.

1.10. Organization of the Study

The present study is divided into eight chapters. Chapter 1 contains the design of the study. It contains introduction, review, research gap, research problem, research questions, objectives of the study, methodology of the study, significance, limitations and organization of the study. Chapter 2 provides a theoretical overview of the study. It includes various theories such as education as an economic good, human capital formation, investment in education, financing of education, household production function, education production function etc.

Chapter 3 structures the household expenditure on school education in India. It analyses the trends in household and public expenditure on education, Chapter 4 elaborates a description of disparity of household expenditure on school education in India. It deals the interstate differences in terms of various indicators such as Gross Enrollment Ratio (GER), Age Specific Attendance Ratio and Net Enrollment Ratio etc. Chapter 5 attempts to identify the determinants of household expenditure on school education in Kerala. It deals with school educational scenario in Kerala and the determinants of school education in India and Kerala. Chapter 6 analyses the school

educational scenario in Kerala by analysis in Thrissur district. It is a survey based on analysis of parents and students in Thrissur district. It includes school environment, student engagement in learning, home environment, parental care and support, free and compulsory education and all promotion policy. Chapter 7 examines student satisfaction and problems related to school education in Kerala: challenges and prospects. It deals with student satisfaction and parent satisfaction about school quality and problems from the part of parents related to school education. It also deals with school environment and home environment effects in student learning and student satisfaction by developing confirmatory factor analysis and structural equation modeling techniques. Chapter 8 concludes with the findings, policy recommendations and conclusion of the study.

Chapter 2

Expenditure on School Education and Economic Development: A Theoretical Framework

Contents

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2.1. Introduction

Sustainable development of any country is possible only through substantial investment in human capital. The development and reconstruction of any country depends on the quality of its citizens. The quality of citizens in turn depends on the quality of education they receive from all sources. There is an intimate relationship between education and economics. Economics of education tries to explain and analyze what determines or creates education and what are the impacts of education on individual and society (Ozturk, 2001).

The primary focus of ‘economics of education’ is to identify opportunities for improved efficiency, equity and quality of education. It also looks into education-economy interdependence and gives importance to three aspects of equity, equality and efficiency in education. The study of ‘economics of education’ also correlates

education with labour market economies and also looks into the efficient and effective utilization of educational resources for the betterment of the society and economy and finally how education contributes to economic growth. Economics of education studies human behaviour in terms of human decisions, actions and reactions about schooling (Bababola, 2015). In short, it is the study of human behaviour affecting human development. Thus it is one of the branches of Economics. It is the study of how educational policy makers make official or approved choices from scarce available resources to make the best possible educational outcomes. This branch of Economics employs the use of some elementary concepts used in labour economics, public sector economics, welfare economics, growth theory and development Economics. It is the study of both the benefits and individual and social costs of education and training in addition to the economic and human aspects that link educational institutions to the global and social economy. This branch of economics will allow scholars to propose educational solutions that are effective and socially workable.

World known classical economists like Adam Smith, Alfred Marshall, John Stuart Mill had discussed education and development extensively, advocating for public investment in education. So, by 1950s economists gave importance to relationship between education and economic growth, education and income distribution and also financing of education. The modern analysis of economics of education had its origin (Schultz, 1961). He considered education as an investment in human capital. Individuals invest in their own education just as firms invest in new machinery. The investments in each case entails costs and yields future benefits, and an internal rate of return to the investment can be calculated. The modern economists established a close connection between education and economics. Thus from the ideas of economists all over the world, it is clear that there is scarcity of resources in the field of education. There are mainly three decision makers or stakeholders in the educational system. They are the Society, the institution or suppliers of education and finally the individuals or households or the purchasers of educational services. The twin problem of scarcity and choice are the challenges faced by these stakeholders. There are notable education economists who correlated between education and economic growth. The relationship between education and economic growth brought about by education is pointed out in the studies of (Hanushek, 2007).

2.2. Education and Economic Development

Contemporary discussions of education for economic development have been dominated by three main models: namely; the human capital, the modernization and the economic dependence theories. During the twentieth century, education, skills, and the acquisition of knowledge have become crucial determinants of a person's and a nation's productivity. One can even call the twentieth century the "Age of Human Capital" in the sense that the primary determinant of a country's standard of living is how well it succeeds in developing and utilizing the skills and knowledge, and furthering the health and educating the majority of its population (Jess, et.al, 1994). The past decades have seen extraordinary expansions in access to basic education throughout the Middle East. Many countries are now on the brink of a further increase in access to secondary and higher education and in effecting spectacular improvements in the quality of education offered at all levels. As increasing number of students complete their basic education, their demand for education at higher levels is similarly increasing.

In the 1960s mounting empirical evidence stimulated the "human investment revolution in economic thought" (Bowman, 1960). The seminal works of (Schultz, 1961) led to a series of growth accounting studies pointing to education's contribution to the unexplained residuals in the economic growth of western economies. Other studies looked at the impact of education on earnings or estimated private rate of returns (Becker 1964; Mincer 1974). Mincer gave importance to earnings from school education. A 1984 survey of growth accounting studies covering 29 developing countries found estimates of education's contribution to economic growth ranging from less than 1 percent in Mexico to as high as 23 percent in Ghana (Psacharopoulos, 1985). The study gave importance to returns to investment in education. The important relation between education and economic development, the change in socio- economic condition of a country through education, school's role in making the individual more productive and the returns to education and investment in education are studied by Weisbord (1962).

Proper education system helps in building a strong nation. The human capital is an essential condition of national survival and strong education is irreplaceable in India which is recently known as knowledge economy. Education helps in the creation of knowledge, skills and attitudes of a nation which creates a knowledge

economy. Education is an essential instrument of social transformation and economic development (Tilak, 2003). It is theoretically evident that expenditure on education leads to better education outcomes in the form of increased enrollment rates, lower drop-out rates and higher school completion rates. There are so many studies dealing with the positive relationship between expenditure on education and education outcome (Psachropoulos, 1994). Development is all about rising income which is possible through education and development is based on human development approach through education and health. Thus all these studies gave importance to the fact that investing or spending more on education lead to better education outcomes and lead to economic development of every nation.

2.3. Education as an Economic Good

Education is regarded as an economic good. It is a good that satisfies human wants and its availability is limited. Education is a non-material good. It is service rendered that satisfies human wants. It is also regarded as a producer's good in the sense that it produces professions like teachers, doctors, engineers, scientists who produce material and non-material goods. Education is the most important and valuable capital which directly promotes the quality and capacity of human beings. Education is the key to production of goods and services. Education increases production of goods and services which increases national income and increase in growth and development. Economists consider human beings as the most important form of capital (Becker, 1964). Education enriches the understanding of themselves and their world. It improves the quality of life of individuals and benefits the society and economy as a whole. It increases people's productivity and creativity by bringing about entrepreneurship and technological advances.

2.4. Human Capital Formation and School Education

Education increases the productivity and efficiency of workers by increasing the level of cognitive skills possessed by the workforce and to increase their stock of human capital (Schultz, 1960; Becker, 1964; Mincer, 1972). According to them, human capital is the stock of economically productive human capabilities, which is a product of innate abilities and investments in human beings. Examples of such investments include expenditures on education, on-the-job training, health and nutrition. Such expenditures increase future productive capacity at the expense of current consumption. The provision of education is seen as a productive investment in

human capital, which the proponents of the human capital theory has considered as equally or even more equally worthwhile than that in physical capital. In fact, contemporary body of knowledge in the United States of America acknowledges that investment in human capital is three times better than that in physical inputs.

It is not from a diffusion of the ownership of corporation stocks, but from the acquisition of knowledge and skill that produces economic value (Schultz, 1961). Human capital represents the qualitative differences in productivity of workers. Like other sorts of capital it requires a costly investment up-front produces a return and may depreciate. Human capital theorists have established that basic literacy enhances the productivity of workers in low-skill occupations. They further state that an instruction that demands logical or analytical reasoning or provides technical and specialize-knowledge increases the marginal productivity of workers in high-skill or professional positions. Moreover, they believed that the greater the provision of schooling, the greater the stock of human capital in a society and consequently, the greater the increases in national productivity and economic growth. In fact, the human Capital theory lays emphasis on skill acquisition as it affects development. Modern economists gave more importance to education and health as it improves human capital and ultimately increases the economic outputs of the nation (Becker, 1994).

Human capital is regarded as the most important component of sustainable development of a country (Lucas, 1998; Romer, 1989). According to Lucas, physical capital is attained through technological change, human capital through schooling and specialized human capital through learning by doing. Romer (1989) gave a theoretical framework and explanation of the role of human capital in a model of endogenous growth. The average number of schooling has been a convenient proxy of human capital based on Solow's growth model (Mankiw et.al, 1992). Barro (1996) studied about the determinants of economic growth by analyzing 100 countries from 1960 to 1990 and found out that higher growth rate is associated with higher initial levels of schooling and so many other factors. Barro (1991) found out that education has a positive and significant impact on economic growth. Countries with higher human capital have low rate of fertility and higher ratios of physical investments to GDP.

Becker (1930-2014) was one of the most original and path breaking economists of modern times. He was 1992 Nobel laureate in Economics for extending the domain of microeconomic analysis to a wide range of human behaviour and

interaction, including nonmarket behavior. According to him for most people, capital means a bank account, a hundred shares of IBM stock, assembly lines, or steel plants. These are all forms of capital in the sense that they are assets that yield income and other useful outputs over long periods of time. But such tangible forms of capital are not the only type of capital. Schooling, a computer training course, expenditures on medical care, and lectures on the virtues of punctuality and honesty are also capital. That is because they raise earnings, improve health, or add to a person's good habits over much of his lifetime. Therefore, economists regard expenditure on education, training, medical care, and so on as investments in human capital. They are called human capital because people cannot be separated from their knowledge, skills, health, or values in the way they can be separated from their financial and physical assets. A positive role of education for human capital by modeling the growth of total factor productivity as a function of the level of education is given by Jess Benhabib and Spiegel (1994). Educated and knowledgeable workforce can contribute much to create, implement and adopt new technologies. Thus increased education leads to the enhancement of technological progress. Educated and literate people contribute much to the socio, economic, demographic, cultural and political development of a country.

The dominant model of the demand for education is based on human capital theory. The central idea is that undertaking education is investment in the acquisition of skills and knowledge which will increase earnings. Technological changes and knowledge based economies as a tool to attain economic development goals are studied by (Khefela, 2010). The study also found out that a country's most important crucial factor for economic development is human capital and knowledge and innovation with globalization can bring about high degree of economic development. Human capital indicators like education and employment are crucial elements to knowledge based economy. Later results attempted to allow for differences in returns across persons (indices) or level of education (signals). Statistics have shown that countries with high enrollment/graduation rates have grown faster than countries without.

The United States has been the world leader in educational advances, beginning with the high school movement (1910-1950). Thus in India, education seems to generate economic growth; however, it could be that we have "backward causality" relationship. For example, if education is seen as a luxury good, it may be

that richer households are seeking out educational attainment as a symbol of status, rather than the relationship of education leading to wealth. To advance this assumption, economists have propounded the theory of signaling (or the screening hypothesis) as an alternative model of the demand for education. Economists like Spence (1993), Arrow (1993) and Stiglitz (1975) regarded education as a screen or signal to productivity. The central idea is that the successful completion of education is a signal of ability.

The law of educational demand states that the higher the price of education, the lower the demand owing to substitution and income effects. However, this law may not hold when there is evidence of ostentatious, speculative and inferior educational services. Derived demand is because of enrollment demand. For example, a school employs teachers and builds classrooms to meet the demand created for them by the enrollment. Linked with the concept of demand is that of educational supply. Educational supply refers to the quantity of education in terms of the number of places that institutions of learning are willing as well as ready to offer at a given price over a period. Supply varies over a given period of time or from place to place.

These growth models known as endogenous growth models or theories regarded human capital as an integral part of the development process which was ignored in Solow's model. This theory transformed the neoclassical theory into increasing returns with the introduction of human capital. The introduction of human capital into production function, knowledge, accumulation and the importance to human and physical capital and determinants of technology were also formed in the theory. This model represents human capital by education and on job-the-training and technology. Thus role of human capital can be divided into two broad categories. The first category includes capital as human capital and second category include innovations models.

2.5. An Alternative Approach to Human Capital Theory

Human capital theory is an individualistic approach to education and success. According to this theory, regardless of the circumstances of birth, it is the cognitive power that makes individuals unequal and makes social divisions among them. So, it is not the high social status but the high cognitive ability that determines high life prospects of an individual. The efficient or rich cognitive ability along with good quality education creates efficient human capital. The theory assumes that natural

cognitive power or mind or intellect is the superior power and everybody is not endowed with it uniformly. So rich are rich, because they are richer in terms of cognitive ability and on the other hand, poor are poorer because they are poorer in terms of cognitive ability. The differences in educational achievements will exist even if everyone is furnished with good or quality education (Becker, 1975; Bradley, 2004, Royce, 2016). The theory also highlights the internal and external factors of cognitive ability. The success and failure of an individual are conditioned by the genes which an individual inherits.

The human capital approach to education says that other than ability and education in determining success there are some other factors such as employment, productivity and earnings. The theory also gave importance to personality traits in the field of education, selection of job and allocation of work. There is a widening gap between education and job not because of abundance of deficient human capital but because of lack of job opportunities. This is mainly because of deficient cognitive ability and unwise investment decision in education, training and job related skills. The more skilled and more professionally qualified persons are more in demand because of their high efficiency and productive power. It is also important that educationally regressive sections can be uplifted only by changing their behavior by investing more in education but the theory ignores the problems of resource inequality, social inequality and discrimination.

The alternative approach takes the individualistic and not the broader view of education and education can fairly function only if the society is fair. In a society where social particularities are dominant, education remain externally constrained and unfair. The individuals are more materialistic and not ready to invest their efforts in education because it would not actually produce efficient human capital always and would not provide employment opportunities because that depends on market forces and the availability of work opportunities (Banfield et.al, 1974).

There are factors other than ability and education that determines the success of an individual. Along with person's cognitive ability and education their social background, social network, cultural dispositions, acquired, non-cognitive personality traits are also important in public and private sectors of employment. There are upbringing affects, divided cultural groups in society, existence of advantaged and disadvantaged sections of society in the job market. Along with cultural traits,

personality traits also matter in the selection of job and allocation of work. Physical abilities are more appealing than cognitive abilities. The value parameters are also important as the contributory factors in employability and access to opportunities. The social connectivity of a person is also important as it generates relevant information to be used for progress in various fields. It creates employment opportunities and increases the push and pull factors of social mobility. The place of employment, nature of job and the facilities provided by the employers are known as the situational factors also create more employment opportunities (Durkheim et.al, 1956).

2.6. Economic Growth and Education

Economic growth is a sustained increase over a significant period of time, in the quantity of material goods and services produced in an economy. One important measure of economic growth is change in the per capita income. Education is one of the many elements that influence economic growth and it does so in four main ways. First, education inculcates skills such as typing, accounting teaching, medicine, law, engineering and electronics, which are useful in the productive process (extractive, manufacturing and construction, commercial and service sectors). Second, education imparts knowledge of economics, politics, science, history, arts, geography, philosophy, mathematics and logical reasoning that can contribute to the most important aspects of economic growth such as innovation, adaptation and entrepreneurship. Third, education provides job ethics and attitude conducive to production of goods and services. Finally, education serves as a screening device for selecting or identifying talents in the most efficient manner (Barro, 1991).

Productivity (or economic efficiency) is the output of goods and services per unit of input such as per unit of land (land productivity in an agrarian society where natural resources are the dominant factor of production), per unit of labour (labour productivity in an industrial society), per unit of learning (learning or intellectual productivity in a knowledge-based society) and per unit of all production inputs combined (national productivity often measured by GNP per capita or GDP per capita owing to measurement difficulty in respect of natural capital and human capital). Productivity has to do with efficiency in the allocation and utilization of resources to produce national income. Some inputs or resources are used in order to produce goods and services.

These resources include natural resources (from forest, land, air and sea; renewable and non-renewable), labour, human capital, physical capital, knowledge capital, social capital and so on. One allocates or uses these resources efficiently if it is not possible to reallocate them (that is to say increase the quantity of some goods or services at the expense of other goods or services) without reducing welfare. The relationship between education, human capital and economic growth was studied by (Obradovic, 2009). Education raises the standard of living of the people and is regarded as the primary component of human capital formation and brings about technological changes in the economy. Thus investment in human capital is crucial for countries to attain self-sustained growth and that makes realized through education. Thus education is a good indicator of technological changes and better quality of life of a nation (Catherine, 2011).

2.7. Household Production Function

Households play an important role in an economic system as a producing and consuming unit (Becker, 1965). Becker's contribution was mainly in the field of importance given to households and on Family Economics. The economic importance of household production was recognized in the work of (Reid, 1934). The modern approach to household production was studied by (Becker, 1965). The household derives utility from the children in their family getting healthy and educated. Housing related inputs and household expenditure on education play an important role in demand for inputs and affects the residual income to purchase other inputs (Becker, 1965; Ben 1967). The household consume so many varieties of goods and it is known as the utility function of households. A household production function of the model of the production of child health and education is studied by (Kutty, 2008). The study asserts that households derive utility from their children by spending on the health and education of their child. Household expenditures play an important role in the demand for household inputs and they are ready to spend more on the education and health of their children.

2.8. Education Production Function

An education production function is an application of the economic concept of a production function to the field of education. It relates various inputs affecting a student's learning (schools, families, peers and neighborhoods) to measured outputs including subsequent labour market success, college attendance, graduation rates, and,

most frequently, standardized test scores. The Coleman Report, published in 1966, concluded that the marginal effect of various school inputs on student achievement was small compared to the impact of families and friends (Jagero, 2014). The effects of school resources on students' academic achievement are being investigated in the study of (Arshad, 2010; Jagero, 2013). An analysis of universe of education production function studies was assembled in order to utilize meta-analytic methods to assess the direction and magnitude of the relations between a variety of school inputs and student achievement is explained (Rob, et.al 1996).

2.9. Engel Demand Function

Engel curve describes how household expenditure on goods and services is interrelated to household income. The term is associated its origin with the German statistician (Engel, 1857). This is popularized by (Houthakker, 1952). The theory states that when income increases from the normal level there will be a corresponding increase in the expenditure pattern of a rational household. Increase in income is not proportionate with increase in expenditure on food, and the expenditure on clothing and lodging remain the same but there is a corresponding proportionate increase in the amount of goods and services such as education and health. This is because of the fact that amount and quality of food a family can consume in a month or week is fairly limited in price and quantity.

2.10. Financing of Education

Financing of education constitutes another issue in the economics of education. Economists are particularly interested in issue of sharing the financial burden of education among the beneficiaries. Economists believe that whoever derives more from education should pay more for such education. They want to know what should be the balance between public and private sources of finance. The difference between the social and the private rates of return reflect the degree of public subsidy of education, and since education is generally highly subsidized, there is usually a wide gap between social and-private rates of return. If individuals were expected to contribute a greater share of the costs of education themselves, by means of fees or some other forms of payment, then the gap between the social and the private rates of return would be reduced.

However, there are very few cases where individual students pay the whole of the cost of their education themselves, and thus private rates of return exceed social rates of return (Bray, 2002). In most countries a significant part of the costs of education, particularly at the primary and secondary levels are borne out of general taxation or other government revenue, and pupils receive free schooling or pay low fees. In the case of private schools, fees may be substantial. In fact, they may be the only source of revenue. Nevertheless, in the case of private schools, there is often some degree of public subsidy, either by means of tax concessions for institutions, or direct subventions for teacher salaries.

In most countries school education is predominantly financed and provided by governments. Public funding and provision also plays a major role in higher education. Although there is wide agreement on the principle that education, at least at school level, should be financed mainly by governments, there is considerable debate over the desirable extent of public provision of education. Supporters of public education argue that universal public provision promotes equality of opportunity and social cohesion. Opponents of public provision advocate alternatives such as vouchers (Tilak, 1993). The importance of school education funding policies, its governance, the budgetary responsibilities of schools, distributing school funding, planning of school funding, evaluation of school funding policies, efficiency and equity in school funding and investing teacher quality are studied by (OECD, 2017). The study is followed by report based on chapters and gave stress on the importance of school funding framework in countries, analyzes the strengths and weaknesses of school funding mechanisms and provided recommendations for improving school funding strategies.

2.11. Investment in Education

The importance of education as investment is well explained in the studies of (Walsh, 1935). Education helps in the formation of human capital and money spent on education is regarded as investment. It changes man into manpower. Factors affecting human capital formation are investment in formal education, improved health, on job training, manpower rehabilitation, migration etc. Formal education increases the economic value of human capital by developing the earning power. It also increases the current asset value of human beings. Thus in economic terms, education is itself an investment. It helps to eradicate poverty, ignorance and produce skilled labourers.

It creates awareness among people to lead a better living. With investments in human capital, there are three economic effects.

- a) Increased expenses.
- b) Increased productivity
- c) Return on Investment.

The study of economics of education includes private and social rates of returns to education, human capital and Signaling theories of education, non-pecuniary benefits of education, education and economic development, contribution of education to the economy, measuring educational expenditure, manpower planning, educational planning and human resource development, educational cost, cost analysis, educational production, educational effectiveness and efficiency, cost-efficiency and cost effectiveness, cost-benefit analysis and economics of teacher supply and educational equity. The economic view of education traditionally has employed the human capital framework developed by (Becker, 1964). In this framework, education is viewed primarily as an investment wherein individuals forgo current labour market earnings and incur direct costs in return for higher future wages.

The original theoretical work by (Becker, 1964) spurred a tremendous amount of empirical work, which has generally supported the implications of the human capital model by (Freeman, 1986). As individuals and nations increasingly recognize that high levels of knowledge and skills are essential to their future success, spending on education is increasingly considered an investment into a collective future, rather than simply as individual consumption. However, investment in education competes for limited public and private resources. The challenge of expanding educational opportunities while maintaining their quality and ensuring their equitable distribution is linked to questions of education finance.

Education is seen as an investment because it entails costs in the present and because it increases productive capacity and income (of the educated individual to be sure but also of society in general) in the future. Private returns accrue to individuals, while social returns accrue to the whole society (including the individuals). In most cases, private returns are greater than social returns because governments give more in subsidies than they take away in taxes (Psacharopoulos, 1985). Developed nations around the world invest an average of 6% of their gross domestic product (GDP) in systems of public schooling.

Thus higher productivity of well educated workers is one of the factors that led to higher GDP and higher incomes. There is a strong correlation between GDP and education. It is for this reason that rich countries afford more on education. The national importance of education is based on the significant positive influence it has on individual lives and on the welfare of communities. Education is primarily a way to train children in the skills they will need as adults to find good jobs and live well. But education also has broader social and economic benefits for individuals, families, and society at large. A population that is better educated has less unemployment, reduced dependence on public assistance programs, and greater tax revenue. Education also plays a key role in the reduction of crime, improved public health, and greater political and civic engagement (Psacharopoulos, et.al, 2002). Investment in public education results in billions of rupees of social and economic benefits for society.

Productivity (or economic efficiency) is the output of goods and services per unit of input such as per unit of land (land productivity in an agrarian society where natural resources are the dominant factor of production), per unit of labour (labour productivity in an industrial society), per unit of learning (learning or intellectual productivity in a knowledge-based society) and per unit of all production inputs combined (national productivity often measured by GNP per capita or GDP per capita owing to measurement difficulty in respect of natural capital and human capital). Productivity has to do with efficiency in the allocation and utilization of resources to produce national income. Some inputs or resources are used in order to produce goods and services. These resources include natural resources (from forest, land, air and sea; renewable and non-renewable), labour, human capital, physical capital, knowledge capital, social capital and so on. One allocates or uses these resources efficiently if it is not possible to reallocate them (that is to say increase the quantity of some goods or services at the expense of other goods or services) without reducing welfare (Psacharopoulos, 2002).

Economy-wide, the effect of human capital on incomes has been estimated to be rather significant such that 65% of wages paid in developed countries has been attributed to payments to human capital (educated skilled workers) and only 35% to raw labour (unskilled labour). The higher productivity of well-educated workers is one of the factors that explain higher GDPs and, therefore, higher incomes in

developed countries. A strong correlation between GDP and education is clearly visible among the countries of the world. It is less clear; however, how much of a high GDP is explained by education. In any case, it is also possible that rich countries can simply afford more education. On the other ground, low-income countries might not be able to afford more of quality education (Barbara et.al, 2002).

2.12. Stages of Growth and Investment in Education

Rostow's stages of economic growth model are one of the major historical models of economic growth. It was one of the structuralist models of economic growth developed by W. W. Rostow in 1960. The model postulates that economic growth in five different stages: They are:- (1) The traditional Society, (2) The preconditions for Take-off, (3) The take-off, (4) The drive to maturity and (5) The age of high mass consumption. These stages were designed to tackle a number of issues. The first stage was feudalistic in nature and in the second stage the economy undergoes a process of economic change. The third stage is the stage of dynamic economic growth and in the fourth stage there happened sustained economic growth. The last and final stage is the contemporary comfort. So, for sustained economic growth, the third stage is more important (Rostow, 1959). It is the drive to maturity stage that involves the diversification of the industrial base, multiple industries, and expansion of existing ones and shifts the investment to the social infrastructure such as schools, universities, hospitals etc. Thus, it is in the stage of drive to maturity stage there is the possibility of educational investment.

2.13 Quantity and Quality of Children and Expenditure on Education

The Darwinian argument gave importance to natural selection of the population tend to be dominated by the highly fertile one (Darwin, 1958). The most important Malthusian theory of population also gave importance to the unlimited increase in it unless if it is checked exceeds the subsistence and fewer children falls to adulthood (Malthus, 1933). Malthus does not give importance to quality of children and he believes in the biological capacity. The relationship between quality of children and the parental expenditure on expenditure were not explained in these theories. A reduction in the number of children in families no doubt is regarded as a major representation of them in the future generations and thereby increases investment in education. Thus, all these theories when combined give the idea that it is important to optimize the quantity of children and thereby can optimize quality of

children, their expenditure on education and quantity on other commodities (Becker, 1993).

The households maximize their utility function subject to the budget constraints, the nature of production function with a fixed cost of quality and the shadow price of the quality of the children which in turn depends on the number of children and household's contribution to quality. An exogenous change in the quantity and quality of children would induce further changes through quality and quantity interaction. The income elasticity for quality is greater than quantity of children. Thus, household expenditure per child decreases with increase in the quantity of children. So, there is an inverse relationship between quantity and quality of children. Household's total expenditure is divided among number of children and reduces the quality. This can be extended to the macro level also. There is a negative relationship between population growth and human capital investment in a country (Becker, 1993).

2.14. Quality of Education and Expenditure on Education

Quality in simple terms means the standard of something, how well or bad it is when compared to something other. Education is the most powerful weapon that can change the world for self- enlightenment. Quality of education is regarded as the educational outcome or what is the end result of education. It is the capability of interpreting things in the right way and applying the acquired information gathered in real life situations (Rao, et.al, 2008). It is a necessary component of sustainability of a nation. It encompasses a wide variety of factors like learning resources, technology, program enrolled, modules done, lecturing methodology, attachments, qualifications, co- curricular activities, performance awards, students and lecturers perspective in the institution operating management and also their opinion and appraisal towards education.

Quality of education is important in the sense that what a person acquired through education affects their mind-set and lifestyle and in total, affects their day to day decision making in life. The main pillars of quality of education are: effectiveness, efficiency, equality, relevance and sustainability and these pillars are difficult to attain simultaneously (Hill et.al, 2014). When we mention about quality of education it is important to differentiate between education and schooling. Education provides the development of desirable qualities on people and school is an institution

which provides the services of education. Schooling can be defined as the basis of human fulfillment, agent of social change and transformation and it is a preparation for life. Thus school is the basis for providing and ensuring quality of education for the development of the society and economy (Garira et.al, 2019). Quality of education is a worldwide agenda of education after 2015 (UNESCO, 2014). In schools how the curriculum will be implemented depends on the quality of processes within the school and the quantity and quality of inputs provided by other levels of education. Thus proper utilization provided to schools by other levels of education system helps in the realization of quality of education and improvement of schools (Garira, et.al, 2019).

2.15. Inequality and Education

Education and equity are regarded as the two key important factors in the 21st century as the widely accepted themes by several development agencies. The differences in income and family status of different generations are known as intergenerational inequalities are regarded as an important determinant of intergenerational mobility. If the sum of the degree of inheritability and prosperity to invest in children exceed unity, a compensated increase in the endowment of parents would increase the income of grand children by more than the income of children (Blanden et.al, 2014).

Thus the degree of inheritability and size of endowments are not determined by the biology of human inheritance but by the social organization. The intergenerational mobility depends on so many factors like degree of inheritability of endowments, number of children, consumption, non-human capital transfers to children and random factors. The perfect assortative mating is one of the major determinants of intergenerational mobility. It is the perfect matching in marriage and it affects educational investment positively. But whenever there is imperfect assortative mating parents may compensate it through bequests and gifts (Becker, 1993). The effect of marriage is less obvious than it appears in families. Parents often anticipate the marital sorting of their children.

2.16. Gender and Education

The relationship between gender and education and how gender differences have an impact on educational attainment and achievement across countries are important. Only few growth models explicitly considered the impact of gender

inequality in education. Knowles et.al (2002) extended the Solow model by considering the male and female capital as separate and considered it as imperfectly substitutable factors of production. The study also found out that a more balanced distribution of education among them can bring about a steady state per capita income. The high level of female literacy of a nation helps it to make and sustain a high level of economic growth.

The gender gaps in education and earnings reduce the economic growth mainly through demographic effects. Gender inequality in education leads to high fertility, low economic growth, poverty trap and aggravates the economic condition of the economy. Economic growth narrows gender gap in earnings, lower fertility and advances economic growth. This is possible only through gender equality in educational opportunities (Hussain, 2010). Thus economies should distribute its resources among males and females in the best possible equal manner to promote economic development.

Household Expenditure on School Education in India: A Preliminary Investigation

- 3.1. *Introduction*
- 3.2. *Global Trends in Education Expenditure*
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3.1. Introduction

Human capital in the form of education promotes and raises a country's overall productivity of labour and economic competitiveness. The theory of human capital considered education as not a form of consumption, that only represents costly expenditure from the part of the government but considered as an investment that improves the economic worth of individuals which is called human capital (Schultz, 1960). It is widely accepted that expenditure on education in India is one of the important factors for sustainable development (Rao, 2014).

In India, expenditure on education is incurred in two ways: individual and institutional. Individual expenditure refers to the expenditure made by the students or their parents. So it is also referred to as household expenditure on education. Institutional expenditure is referred to as government or non-government expenditure on education. In India, household expenditure on education is quite sizeable, even households from lower income groups all spend considerable amounts on acquiring education (Tilak, 2002). Even in the case of government primary and upper primary schools, students have to pay the huge amounts of examination and other fees. The

annual household expenditure at primary level is much higher in rural areas compared to secondary, higher secondary and higher education levels. In the urban areas, acquiring primary and higher secondary education is very costly.

Many households do not spend adequately on good clothing for children or on purchase of sufficient number of textbooks and stationery. The Indian government has been spending millions of rupees on primary education with the slogan of Universal Primary Education (UPE) for many years. The government also introduced number of programmes and provided plenty of incentives to improve access to education. Even if the government spends more on education, the problem of quality of education still remains as the most important challenge to Indian education system. Globally also, the countries and development institutions like United nations Educational, Scientific and Cultural Organization (UNESCO) and world bank also made a tremendous effort in the development of education and especially to that of the developing countries of the world (UNESCO, 2020).

3.2. Global Trends in Education Expenditure

It is shown in the Table 3.1 that Norway spends more on education, i.e. 6.6% followed by New Zealand and United Kingdom, i.e.6.3% each. Russia spends least, i.e. 3.4%. The OECD average is 4.9%. Thus it is clear that there are wide differences with respect to education spending as a share of GDP in different countries. All the countries spend more on school education than higher education.

Table 3.1
Education Spending as a Share of GDP in Selected Countries in 2017

Country	% of GDP for School Education	% of GDP for Higher Education	Total
Norway	4.7	2.0	6.6
New Zealand	4.6	1.7	6.3
United Kingdom	4.3	2.0	6.3
United States	3.6	2.6	6.1
Canada	3.6	2.3	5.9
France	3.7	1.5	5.2
OECD average	3.5	1.4	4.9
Spain	3.0	1.3	4.3
Germany	3.0	1.2	4.2
Japan	2.6	1.4	4.0
Italy	3.0	0.9	3.9
Russia	2.4	1.1	3.4

Source: Organization of Economic Co-operation & Development, 2018

In most of the countries, basic education is considered not only as a right, but also the duty and responsibility of the government to ensure it at a certain basic level.

It is no doubt that, the global education expansion in the 20th century resulted in a historical reduction of education inequality to a certain extent (Table 3.1). In the case of education over the countries of the world, there are not only big differences in the case of educational attainment but also the amount of a country's resources which are spent on the investment in this sector. The expenditure on education by the private and public authorities plays a very important role in the progress and development of a nation (Roser, et.al 2016). Total expenditure on education promotes social and economic development. It is seen over the world that the families in low income countries pay more for their child's education and households in many of the developing countries of the world spend a far greater share of average GDP per capita on education than in developed countries (Roser, et.al 2016).

Thus there is a growing commitment and concern of families over the world, for the education of their child. Along with the Millennium Development Goals and the increase in the international capital flows, the prioritization of development assistance for education at all levels and regions can have large distributional effects particularly within low income countries. In the case of education, there are not only big differences in attainment levels across the world, but differences exist in terms of the amount of a country's resources spent on investment in this sector (OECD, 2017). There are differences in terms of different countries spending on education and the percentage of GDP spent for school education and higher education. Public education spending as a percentage of GDP in BRICS Economies in 2007 and 2016 is being compared in Table 3.2.

Table 3.2
Public Education Spending as a Percentage of GDP in BRICS Economies

Country	2007	2016	% change in public expenditure
India	2.6	2.9	11.53
China	3.2	4.3	34.37
Russia	4	3.6	-10.0
Brazil	4.4	5.7	29.54
South Africa	5.5	6.9	25.45

Source: BRICS Joint Statistical Publication on Education Expenditure, 2017

India's education spending do not show a sharp increase and it is very low (2.6 to 2.7 %, only 11.5 percent increase) compared to other BRICS economies. South Africa's spending on education is higher which increased from 5.5 per cent in 2007 to 6.9 per cent in 2016 (25.45 increase). China and Brazil also showed a positive and progressive increase from 2007 to 2016. The education spending as a share of GDP in

selected countries in 2014 and 2015 is being compared in the Table 3.3. Norway's education spending as a share of GDP was 6.20 in 2014, which increased to 6.38 % (2.9 percent increase). Iceland's education spending decreased considerably. Countries like New Zealand, United Kingdom, United States and France also showed a negative change.

Table 3.3

Education Spending as a Share of GDP in Selected Countries in 2014 & 2015

Country	Education spending as a share of GDP(2014)	Education spending as a share of GDP(2015)	% change in public expenditure
Norway	6.20	6.38	2.90
New Zealand	6.40	6.31	-1.40
United Kingdom	6.60	6.23	-5.60
United States	6.20	6.09	-1.77
Australia	5.80	5.95	2.58
France	5.30	5.20	-1.88
Iceland	6.0	3.47	-42.16

Source: Computed from the data of Organization of Economic Cooperation & Development (OECD), 2016

Thus the nature of expenditure on education of the developing and developed countries of the world differs very much in all aspects. As India's expenditure pattern and spending is low compared to the developed countries of the world, it is important to examine the development in the Indian education system.

3.3. Education System in India

After Independence, Indian economy witnessed an increased emphasis on education, as a means of national development. Educational reconstruction was the main focus which was supported by a number of committees and commissions including University Education Commission (1948-49) and the Secondary Education Commission (1952-53). The Education Commission (1964-66), also known as Kothari Commission was appointed to advise the Indian Government on the general principles and policies for the development of education at all stages and in all aspects. It was a comprehensive attempt to review the entire Indian education system and emphasized education as a powerful means to attain national development. The National Knowledge Commission (2009) was assigned to deal with the educational challenges in 21st century. The main aim was to impart quality, access and equity in higher education (Anderson, 2019).

The national policies on education were implemented with a view to prepare a detailed roadmap for implementing the schemes of education. The first National

Policy on Education (NPE) (1968) was under the Indira Gandhi Government and the second by Prime Minister Rajiv Gandhi in 1986. It was revised in 1992 with some modifications. This move was mainly as per the recommendations of Kothari Commission and gave importance to reconstruct the education system by improving quality of education at all stages. The main aim of all these educational policies was to adjust the educational scenario according to the current situation of the economy (Geeta, 2007). The NPE 2019 aimed to transform our nation sustainably into an equitable and vibrant knowledge society by providing high quality education to all. It is based on the foundational pillars like access, equity, quality, affordability and accountability. The policy also aimed to integrate technology in education and provided an integrated yet flexible approach to education. The NPE 2020 aims to transform the Indian education system as a whole by making India a global knowledge superpower. The NPE proposed a national framework for curriculum as a means to meet the needs of India's diversity of geographical and cultural values along with academic components.

To achieve the goal of education for all, a common school system (CSS) was introduced as per the recommendations of Education Commission (1964-66). The neighbourhood schools and alternate schools were also introduced as a part of CSS. The NCE was designed by the National Council for Educational Research and Training (NCERT) in 1975 and subsequently revised in the years 1988, 2000 and 2005. As a part of universalization of elementary education, Sarva Shiksha Abhiyan (SSA) as a flagship programme for India was introduced in 2001. Other initiatives like National Program for Education of Girls at Elementary education (NPEGL) in 2003, Mid-Day Meal Scheme in 1995, Right to Education (RTE) in 2009, Rashtriya Madhyamic Shiksha Abhiyan (RMSA) in 2009, Scheme for Infrastructure Development in Minority Institutes (IDMI), Scheme to Provide Quality Education in Madrasas (SPQEM) were also regarded as milestone developments in India's school education system.

Samagra Shiksha is regarded as an overreaching programme for school education sector extending from pre- school to class 12 to prepare with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three schemes such as SSA, RMSA and Teacher education (TE). It is highly true that Indian education

system has made significant progress in recent years particularly in terms of access. The twelfth five year plan (2012-17) gave greater focus on expanding education and improving the quality and access aspects of school education. The expenditure on education has increased rapidly in recent years from Rs.97,000 crores (\$ 11 billion) in 2004-05 to Rs.560,000 (\$63 billion) in 2015-16 according to MHRD budget analyses. When this increase expressed as a percentage of GDP, it is seen that it was 4.1% in 2000-01 down to 3.3% in 2004-05, back up to 4.4% in 2013-14 and down again to 3.3% in 2019-20, according to government figures.

3.3.1. School Education in India

The school education system in India is the largest in the world meeting the needs of over 260 million young people each year. Indian school education system is jointly managed by the national and state levels. Many initiatives have been undertaken from time to time to improve access to quality schooling particularly for the economically and socially disadvantaged sections of the society. India with over 1.5 million schools, over 8.7 million primary and secondary teachers and more than 260 million enrolments is the most complex education system in the world. India is demographically one of the youngest countries in the world and be regarded as the country at the peak of its demand for educational provision. According to the 2011 census, the national literacy rate is estimated as 74 per cent and Kerala with highest 94% and Bihar with 64%. Uttar Pradesh is the most populous state with 17% of the country's population. The literacy rate in Bihar is too low due to high rural population suggesting a high correlation between literacy rate and population (Anderson, et.al, 2019)

As per the Indian constitution, school education was originally a state owned subject, the programmes and policies are implemented at the national level but each state have the complete freedom to make changes in it from time to time. In India school education has at four levels, lower primary (std. I-IV), Upper primary (std. V-VII), high school or secondary education (VIII-X) and higher Secondary (XI-XII). Schools are owned by government and private sectors. There are government schools, government aided schools, private schools and unaided schools in India. There are so many educational initiatives undertaken by the government from time to time for the development of the educational sector. There are so many educational institutions and apex bodies to improve the education sector from time to time (Alex, 2005). There

happened a lot of improvements in the school education system from time to time since independence but still there needs more structural transformations and changes to be brought about looking into the future of Indian education system.

3.4. Public Expenditure on School Education in India

Education has been regarded as one of the important drivers of economic growth. Divergence between the social and private rate of return from education is the rationale for intervention of the government in ensuring equity in opportunity to the population. It is in this context that many governments undertake the responsibility of investing in education (Anuradha et.al, 2008). It is a widely accepted fact that there is a large scope for education improvement in both the central and state level in terms of the quality of publicly funded education in India. In India, education has become an integral part of the planning process since its inception (1951-56). India has made a tremendous increase and expansion in the education sector. The expenditure share of GDP was 0.64% in 1951 slowly rose to 3.36% in 2011.

There are mainly three sources of financing of education in India. They are: (1) financing through central government; (2) state government and non-government sectors such as parents; (3) non- government organizations, banks, philanthropic contributions and (4) as a part of corporate social responsibility activities amongst others. It is the government that is the most responsible authority to invest more on education due to the social returns associated with it. Even though, public investment in social infrastructure is considered as critical to economic growth, government expenditure on education as a percentage of GDP is not considerably increasing in India. There is unimpressive investment in social infrastructure in India due to lack of fiscal space to invest more on critical social infrastructures like education and health (Mukherjee et.al, 2019).

Expenditure on education increases the skill and productivity of the workforce and contributes to economic growth and development of the economy. Government expenditure on education is thus an important indicator of economic progress as it provides an incentive and motivation for other sectors to invest in education (Mukherjee et.al, 2007).

3.4.1. Trends in the Share of Expenditure on Education in GDP

The trends in the share of expenditure on education in total GDP are an important indicator of public expenditure on education (Table 3.4 (a)). It is measured

by various indicators such as GDP at current prices at various years, Expenditure on education, spending on elementary education and education as a total percentage of GDP. Trends in the share of expenditure on education in GDP in India are shown in the Table 3.4(a). From 2006-07 there seems to be an increase in GDP at current prices from Rs.3953276 crores to Rs.5439338 crores in 2007-11. The same trend is also seen in the case of expenditure on education, elementary education spending. It is also seen that there is no much improvement in the case of expenditure on education as a % of GDP. It was 3.5% in 2006-07, reduced to 3.4% in 2007-08, shown a slight increase 3.6% in 2008-09, 4% in 2010-11 and again decreased to 3.7% in 2010-11.

Table 3.4 (a)
Trends in the Share of Expenditure on Education in GDP in India

Year	GDP at current prices (Rs. in crores)	Expenditure on Education (Rs. in crores)	Elementary Education Spending (Rs. in crores)	Expenditure on education as a % of GDP	
				Education	Elementary Education
2006-07	3953276	138727	59755	3.5	1.5
2007-08	4582086	1557684	68883	3.4	1.5
2008-09	5303567	192395	79000	3.6	1.5
2009-10	6108903	244687	95573	4	1.6
2010-11	7248860	297311	119581	4.1	1.6
(2007-11)	5439338	206161	84558.6	3.7	1.5
CAGR	13.0	16.0	15.0	3.0	2.0

Source: Analysis of Budgeted Expenditure, Various Years, MHRD

The expenditure of elementary education as a % of GDP also shown a stable state and it was 1.5% in 2006-07 and same as in 2010-11. Thus it is clear that compared to expenditure on school education and expenditure on elementary education, the expenditure on education as a % of GDP do not show a positive increase. GDP at current prices during these years increased at 13%, expenditure on education at 16%, expenditure on elementary education at 15% and expenditure on education and expenditure on elementary education as a % of GDP increased only at 3% and 2% respectively.

Trends in the share of expenditure on education in GDP are shown in the Table 3.4 (b). The GDP at current prices from 2006-07 to 2015-16 shows that there was an increase from Rs.3953276 crores to Rs.13764037 in the same period. The expenditure on education also increased but at a slow rate, from Rs.138727.03 crores to Rs.587439.5 crores and elementary education from Rs.59755 crores to Rs.169823.8 crores. Thus it is clear that there was a 10% increase in GDP from 2006-07 to 2015-16 and 12% in expenditure on education, 8% increase in the spending of elementary education, 2% increase in the share of education expenditure to GDP and -2%

decrease in elementary education's contribution to total GDP. The percentage share of both elementary education and education also not showed a remarkable improvement. It increased from 3.5% to 4.3% and elementary education from 1.5% to 1.4%. So it is clear from the Table 3.4 (a) and 3.4 (b) that there was a considerable improvement in GDP at current prices, expenditure on education and expenditure on elementary education it shows a stable position and in some cases it shows a negative trend in the case of elementary education.

Table 3.4 (b)
Trends in the Share of Expenditure on Education in GDP in India

Year	GDP at current prices (Rs in crores)	Expenditure on Education (Rs in crores)	Elementary Education Spending (Rs in crores)	Expenditure on education as a % of GDP	
				Education	Elementary Education
2011-12	8736329	337082	137667	3.9	1.6
2012-13	9944013	368133	152499	3.7	1.5
2013-14	11233522	433641	164134	3.9	1.5
2014-15(RE)	12467959	502929	195954	4	1.6
2015-16(BE)	13764037	587440	198865	4.3	1.4
(2012-16)	11229172	445845	169824	3.9	1.5
CAGR	10%	12%	8%	2%	-2%

Source: Analysis of Budgeted Expenditure, Various Years, MHRD

Thus it is a clear cut problem to be taken into consideration that the percentage share of education expenditure to total GDP share need to be increased, only then there will be an improvement in this sector. But compared to these positive trends, the expenditure on education as a per cent of GDP in the case of education and that of elementary education do not show an increase and in some years it showed a negative trend.

3.4.2. Expenditure on Education in India

The expenditure on school education of primary and secondary education is shown in the Table 3.5. Expenditure on primary education is expressed as a percentage of total general government expenditure on education. General government usually refers to local, regional and central governments. Expenditure on primary education (% of government expenditure on education) in India was 28.40 as of 2013.

The highest value over the past 14 years was 37.56 in 2000, while its lowest value was 25.21 in 2010. The percentage of government expenditure to primary education during these years does not show a positive trend, i.e. it is shown an increase and decrease during these years. Expenditure on secondary education is

expressed as a percentage of total general government expenditure on education. General government usually refers to local, regional and central governments. Expenditure on secondary education (% of government expenditure on education) in India was 41.35 as of 2013. The highest value over the past 14 years was 42.89 in 2005, while its lowest value was 34.92 in 2009. Expenditure on tertiary education is expressed as a percentage of total general government expenditure on education. General government usually refers to local, regional and central governments. Expenditure on tertiary education (% of government expenditure on education) in India was 28.53 as of 2013.

Table 3.5
Expenditure on Primary and Secondary Education in India

Year	% of Government Expenditure on Primary Education	Percentage change in primary education expenditure	% of Government Expenditure on secondary Education	percentage change in secondary education expenditure
1999	30.05	0.00	37.80	0.00
2000	37.56	24.99	40.09	6.05
2003	36.08	-3.94	41.67	3.94
2004	36.38	0.83	41.62	-0.11
2005	35.59	-2.17	42.89	3.05
2006	35.38	-0.59	42.50	-0.90
2009	26.68	-24.59	34.92	-17.83
2010	25.21	-5.50	36.99	5.92
2011	26.55	5.31	36.96	-0.08
2012	27.21	2.48	38.73	4.78
2013	28.40	4.37	41.35	6.76

Source: Computed from the UNESCO Institute for Statistics (<http://uis.unesco.org/>), 2015

The highest value over the past 14 years was 36.45 in 2009, while its lowest value was 17.54 in 1999. It also shows a mild increase and decrease over the years. The government spending on education is an important factor determining the resources diverted to education. It is clear from the Table 3.6 that India spends a considerable amount of money for school and higher education sectors.

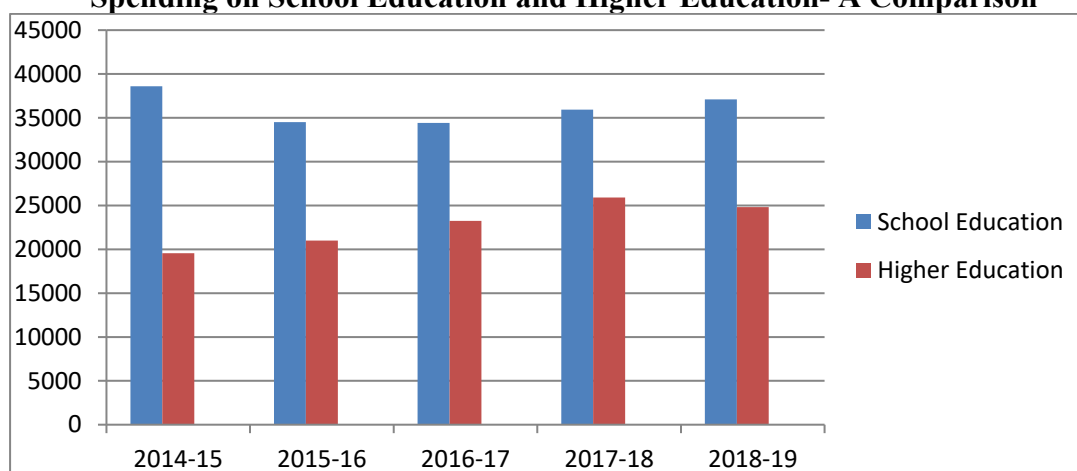
Table 3.6
Spending on School Education & Higher Education- A Comparison

Year	Spending on school education (in crores)	Spending on higher education (in crores)
2014-15	38607	19549
2015-16	34508	21001
2016-17	34415	23237
2017-18	35928	25916
2018-19	37111	24817

Source: Calculated from the Government of India, various issues, Budget Documents, Various Years

It is also apparent that compared to higher education Indian Government spends more on school education and at the same time school education expenditure shown a negative trend, i.e. Rs.38607 crores in 2014-15 to Rs.34508 crores in 2015-16, Rs.34415 crores in 2016-17 and shown an improvement in the years 2017-18 and 2018-19 to Rs.35928 crores and Rs.37111 crores respectively. India’s spending comparison on school and higher education is given in the Figure 3.1. India spends more on school education than higher education. In 2014-15, spending on school education was 38,607 crores which were lowered to 37,111 crores in 2018-19. The spending on school education is not steadily improving over the years and the government spending on higher education is steadily improving over these years.

Figure 3.1
Spending on School Education and Higher Education- A Comparison



Source: Calculated from the Government of India, Budget Documents

Thus even though the government is spending more to the school education sector, the amount spent for each year on school education compared to higher education decreased from 2014-15 to 2018-19. Thus the resources the government devoted to school education sector must undergone a change.

The Public Expenditure on Education as a Percentage of GDP in India in various years is shown in the Table 3.7. The total expenditure on education by education and other departments from 1951-52 to 2014-15 showed a tremendous increase, ie, Rs. 64 crores to Rs.502929.34 crores. The expenditure on education as a % of GDP which was 0.64% in 1951-52 increased to 4.04% in 2014-15. The expenditure on education as a % of GDP and GSDP is shown in the Table 3.7. The total expenditure on education by education and other departments showed a tremendous increase over the years 1951-52 to 2014-15. It increased to Rs.64.46

crores to Rs.502929.34 crores during the same period. The percentage change in the total expenditure on education shows that the increase is not in a smooth and steady manner. The increase was fast and steady during the initial years and it showed a decline after 2000-01. The percentage change shows that public expenditure increased much faster rates from 1951-52 to 2000-01. After that it showed a decline then a slight increase and decrease showing that public expenditure do not increased at a faster rate.

Regarding the expenditure on education by education and other departments as a per cent of GDP also there was not much impressed progress. It was 0.64 in 1950-51 and increased to 4.04 per cent in 2014-15. The percentage change also shows that in some years the increase was negative and even if there is some increase in some years the pace was very slow indicating the importance of increasing the share of education as a per cent of GDP.

Table 3.7
Public Expenditure on Education as a Percentage of GDP in India

Year	Total Expenditure on education by Education & other Departments (Rs crore)	Percentage change in total expenditure on education	Expenditure on education by Education & other Departments as % of GDP	Percentage change in total expenditure on education as a % of GDP
1951-52	64.46	0.00	0.64	0.00
1960-61	239.55	270.47	1.48	131.25
1970-71	892.36	272.51	2.11	42.56
1980-81	3884.20	335.27	2.98	41.23
1990-91	19615.85	405.01	3.84	28.85
2000-01	82486.48	320.50	4.14	7.81
2005-06	113228.71	37.26	3.34	-19.32
2006-07	137383.99	21.33	3.48	4.19
2007-08	155797.27	13.40	3.40	-2.29
2008-09	189068.84	21.35	3.56	4.70
2009-10	241256.02	27.60	3.95	10.95
2010-11	293478.23	21.64	4.05	2.53
2011-12	333930.38	13.78	3.82	-5.67
2012-13	368132.87	10.24	3.70	-3.14
2013-14 (RE)	433640.59	17.79	3.86	4.32
2014-15(BE)	502929.34	15.97	4.04	4.66

Source: Ministry of Human Resource Development & Analysis of Budgeted Expenditure, various years

3.4.3. Intra-Sectoral Allocation of Public Expenditure on Education

Government spends more on elementary and secondary education altogether. But the importance and the share to these sectors showed a slow decline during the same period and the importance to higher education and technical education showed a mild increase. The share of elementary education was 50.91% in 2001-02 decreased

to 44.59% in 2013-14 is presented in the Table 3.8. The share of secondary sector also decreased from 33.80% to 24.86% in the same period. The share of higher education increased from 11.34% to 15.29%. The importance of technical education also improved progressively during the same period.

It is also seen that elementary education and its share despite its decline occupies almost half of the per cent of the total expenditure devoted to whole education system. In the case of secondary education it is also seen that it is about just half of the expenditure for elementary education. It is also seen that as years' changes the discrepancy in elementary and secondary education went on decreasing.

On the other hand, the importance given to university and higher education and technical education also improved over the years. Household expenditure on education is an important component of economic growth and thus sustainable development. In India, household expenditure on education forms an important component of education expenditure and it is also known as parents investment on education. The items included in expenditure of school education includes tuition fee, exam fee, other fees and & payments, books & stationary, uniform, transport, private coaching and other expenses.

Table 3.8
Intra Sectoral Allocation of Public Expenditure on Education in India

Years	Elementary Sector	Secondary Sector	University & higher education	Technical Education	Other Sector including adult education etc.
2001-02	50.91	33.80	11.34	2.32	1.64
2002-03	49.12	34.91	11.95	2.42	1.59
2003-04	49.57	34.95	11.61	2.28	1.59
2004-05	51.45	30.13	11.67	3.82	2.93
2005-06	46.56	25.80	19.31	7.96	0.89
2006-07	45.17	23.27	19.30	11.98	0.28
2007-08	44.62	22.98	24.47	7.67	0.26
2008-09	42.47	24.24	24.30	8.79	0.20
2009 -10	39.63	25.87	23.59	8.91	2.0
2010-11	42.09	24.31	21.34	11.95	0.31
2011-12	44.66	25.62	16.14	13.28	0.30
2012-13	45.21	25.19	14.70	14.62	0.28
2013-14	44.59	24.86	15.29	14.95	0.31

Source: Analysis of Budgeted Expenditure on Education, MHRD, Government of India, various issues

The average annual item- wise expenditure per student in rural and urban areas shows that household expenditure on education is much higher in urban areas than in rural areas (Nair, 2004)

3.5. Household Expenditure on School Education in India

The studies on household expenditure on education in India indicate that there is nothing like free education in India. The cost parents incurred on their child's education are of three types. These are direct, indirect and opportunity costs. Fees & transport form the most important item of expenditure at any levels of education. These are known as the direct cost of education. Indirect costs are expenses which are not considered as the part of direct learning process. Opportunity costs are the cost that forego to participate in the learning process (Tilak, 2000). There is an acute shortage of resources in the education sector in India. India's total public expenditure on education as a percentage of GDP also declined. Thus it is the duty of the government to provide more incentives to rural households and making education more affordable at each level of education (Rao, 2014).

Over the last two decades, there was a greater emphasis on literacy and promoting primary education through schemes such as Sarva Shiksha Abhiyan (SSA) and it made a tremendous impact on household spending on education. It has increased considerably and increased by 9% per annum, while at the same time the overall consumer market grew at 6% annum. The top three education markets in India are Maharashtra, Uttar Pradesh and Tamil Nadu. Kerala the top literate state stands the seventh position in the education market, which shows that there is no relation between literacy and spending on education.

There are rural urban differences and gender differences to some extent. One of the most promising factors to increase the household spending on education was no doubt, the growth of private institutions and the high preference of parents towards these over government sector especially in the school education sector in India (Tilak, 2000). In spite of the adequate number of government schools in India, more than one third of the elementary school students are the private sector in 2014-15. According to District Information System for Education (DISE) data, about 75% of the schools in India at the elementary level are in the government sector, in 2014-15, showing the importance of government in providing education. As per the Ninth Annual Status of Education Report, the enrollment in the private sector (6-14 age groups) increased considerably, 18.2% in 2007 to 29% in 2013.

3.5.1. Item-wise Expenditure on Education

In terms of average spending per household, the inequality between the rich and the poor is evident. The rich spend more on higher education than the poor and the rich- poor divide in terms of spending on education is stronger in urban India, an urban household spends 3-4 times more than a rural household. Thus in India, it is clear that the education system has huge potential for investment, there is a strong need to revamp the system to meet the desired skill requirements for economic growth as well as the aspirations of parents (Tilak, 2006). Thus in the case of school education at all levels there was an increase in the growth rate of household expenditure on education than higher education.

Average item- wise expenditure (Rs.) per student in rural areas is shown in the Table 3.9. From 1995-96 to 2012-13 there were a substantial increase in the items of expenditure like tuition fees, exam fee, other fee and payments, books and stationery, uniform, transport, private coaching and other expenses. In 1995-96, in case of primary and secondary education books, stationery and uniform hold the major share of household expenditure. In the case of higher secondary education, exam fee, other fees & private coaching also are the major expenses. In 2012-13, apart from these items transportation, private coaching and tuition fee are also considered as the major items of expenditure. This clearly shows that there is a shift from the priority of households regarding different items of expenditure on education and these requirements of education have shown a change over years.

In the case of higher education, the major item of household expenditure on education in 1995-96 was books and stationery, but it was tuition fee among the household items of expenditure in 2012-13. In urban areas tuition fee and transportation are also included in the major items of expenditure. Urban households in 1995-96 spent more on tuition fee, exam fee, books and private coaching. In 2012-13, the amount spent on these items increased, and tuition fee, books and private coaching occupied the major share of expenditure. This clearly shows that the expenditure on education by the urban households is entirely different from that of rural households (Table 3.10). In the case of primary education of urban households, the major item was tuition fee over these years and in case of secondary education, the households spent more for books and stationery in 1995-96 and it changed to tuition fee in 2012-13.

Regarding higher secondary education, in 1995-96, it was private coaching which occupied major share but in 2012-13 it was tuition fee. In the case of higher education, the major item of household expenditure on education in 1995-96 and 2012-13 was tuition fee. Thus it is clear that the items of expenditure on education at different levels and different categories differ over time as per the requirements of the society. The different items of expenditure on education at all levels from primary to higher education comparatively from 1995-96 to 2012-13 showed a tremendous improvement and increase. In the case of primary education in 1995-96 and 2012-13 the major item was tuition fee (27.67%) and (42.30%) respectively. But in the case of secondary education it was books and stationery, 25.40% in 1995-96 but tuition fee, 39.95% in 2012-13. It is also clear that in the case of higher secondary and higher education also in both years tuition fee occupies the major form of expenditure. Thus comparatively, when looking into the different items of education expenditure tuition fee forms the major form of expenditure. The average annual expenditure in general, technical and vocational education shows that expenditure on general education is much lower than that of vocational and technical/professional education. Households spent more on technical/ professional and vocational education than general education and it increased considerably from 2007-08 to 2014.

Table 3.9
Average Item- wise Expenditure (Rs) per Student in Rural Areas

Level of Education	Tuition Fee	Exam fee, other fees & Payments	Books & stationary	Uniform	Transport	Private coaching	Other Expenses	Total
1995-96								
Primary Education	31 (10.43)	29 (9.79)	102 (34.34)	82 (27.60)	11 (3.70)	23 (7.74)	19 (6.40)	297 (100)
Secondary Education	36 (5.63)	61 (9.53)	246 (38.44)	170 (26.57)	18 (2.81)	71 (11.09)	38 (5.93)	640 (100)
Higher Secondary	73 (6.18)	140 (11.85)	423 (35.82)	212 (17.95)	87 (7.37)	182 (15.41)	64 (5.42)	1181 (100)
Higher education	375 (16.35)	414 (18.04)	680 (29.64)	101 (4.40)	395 (17.22)	154 (6.71)	175 (7.63)	2294 (100)
2012-13								
Primary Education	335 (26.05)	170 (13.22)	288 (22.40)	214 (16.64)	123 (9.56)	93 (7.23)	63 (4.90)	1040 (100)
Secondary Education	403 (20.83)	226 (11.68)	524 (27.08)	296 (15.30)	147 (7.60)	257 (13.28)	82 (4.23)	1935 (100)
Higher Secondary	1089 (23.89)	683 (14.98)	1101 (24.15)	440 (9.65)	357 (7.83)	699 (15.33)	189 (4.15)	4558 (100)
Higher education	3619 (37.14)	1878 (19.27)	1739 (17.85)	221 (2.23)	1205 (12.37)	750 (7.69)	332 (3.41)	9744 (100)

Note: Figures in parenthesis shows percentage

Source: Computed from NSS 52nd round Report No.439 (52/25.2/1), 72nd Round NSS KI (71/25.2)

Households spent Rs.2461 in 2007-08 and it increased to Rs.6788 in 2014 for general education. In the case of technical/professional education it was Rs.32112 and Rs.62841 over the same years. In the case of vocational education it was Rs.14881 and Rs.27676 respectively during the same time period. Average expenditure per student pursuing general education at different levels is shown in the Table 3.10.

Table 3.10
Average Item- wise Expenditure (Rs) per Student in Urban Areas

Level of Education	Tuition Fee	Exam fee, other fees & Payments	Books & stationary	Uniform	Transport	Private coaching	Other Expenses	Total
1995-96								
Primary Education	318 (27.67)	117 (10.18)	223 (19.41)	231 (20.10)	93 (8.01)	125 (10.88)	42 (3.65)	1149 (100)
Secondary Education	316 (22.80)	148 (10.68)	352 (25.40)	306 (22.07)	97 (6.99)	245 (17.67)	59 (4.26)	1523 (100)
Higher Secondary	397 (19.85)	223 (11.15)	307 (15.36)	307 (15.36)	114 (5.70)	560 (28.01)	91 (4.55)	1999 (100)
Higher education	931 (29.05)	515 (16.07)	865 (26.99)	74 (23.09)	325 (10.14)	400 (12.48)	94 (2.93)	3204 (100)
2012-13								
Primary Education	2473 (42.30)	945 (16.16)	774 (13.24)	434 (7.42)	627 (10.72)	438 (7.49)	155 (2.65)	5846 (100)
Secondary Education	2645 (39.95)	839 (12.67)	965 (14.57)	476 (7.19)	573 (8.65)	936 (14.13)	186 (2.80)	6620 (100)
Higher Secondary	4280 (36.25)	1443 (12.22)	1630 (13.80)	575 (4.87)	689 (5.83)	2810 (23.80)	379 (3.21)	11806 (100)
Higher education	4673 (37.94)	2261 (18.36)	2001 (16.2)	172 (1.39)	1389 (11.27)	1405 (11.40)	413 (3.35)	12314 (100)

Source: Computed from NSS 52nd round Report No.439 (52/25.2/1) & 72nd Round NSS KI (71/25.2)
Figures in parenthesis shows percentage

Compared to rural areas the expenditure at all levels are very much high. The differences in male and female are also high at all levels. At the school level, expenditure is more at the higher secondary and secondary levels. The expenditure on school education in the urban areas is more than double at the rural areas. In the case of higher education, this difference is not much wider compared to that of school education. In the case of school education, the differences in male and female expenditure at different levels are comparatively high compared to that of higher education. The average annual expenditure per student pursuing general education for different items of expenditure is given in the table. Households in urban areas spent more on different items of expenditure than the rural households. Both in rural and urban areas households spent more on male than female population. Uniform, books,

private coaching & stationery occupies major share by households both in rural and urban areas. The household spend differently for different items of expenditure but they spend more on uniform followed by tuition fee and books and spend least on other expenses and transport.

Table 3.11
Average Expenditure per Student Pursuing General Education in India in 2012

Gender	Primary	Upper Primary	Secondary	HS	Graduate	PG and above	Diploma
Rural							
Male	3061	3603	5568	9820	11306	13017	15209
Female	2512	2813	4534	8012	11813	16715	10706
Person	2811	3242	5100	9031	11527	14604	13422
Urban							
Male	10604	11864	13781	21681	17480	19090	23040
Female	9489	10940	13284	18442	16161	16565	21249
Person	10083	11446	13547	20179	16771	17744	21947
Rural + Urban							
Male	4895	5775	7805	13511	13324	15417	16920
Female	4273	4922	7049	11509	13649	16641	14918
Person	4610	5386	7459	12619	13478	15999	15997

Source: Computed from NSS 71st Round (2014), NSS KI (71/25.2):

Thus different items of expenditure requires in different quantities to household spending on education. Proportion of students incurring expenditure on different items (as % of corresponding estimated number of students of sector-sex) is shown in the Table 3.12.

Table 3.12
Proportion of Students Incurring Expenditure on Different Items in India 1995

Item of Expenditure	Rural			Urban			Rural+ urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Tuition fee	16.7	12.5	15.0	48.8	43.5	46.3	25.5	22.8	24.4
Exam fee	64.5	59.9	62.7	64.9	63.3	64.2	64.6	61.1	63.2
Other fee & payments	60.1	57.1	58.9	61.0	59.9	60.5	60.4	58.0	59.4
Books	80.6	79.1	80.0	90.0	88.7	89.4	83.2	82.3	82.8
Stationery	97.5	97.1	97.3	97.8	97.8	97.8	97.6	97.3	97.5
Uniform	47.2	49.4	48.1	70.1	72.1	71.0	53.5	57.0	54.9
Transport	8.8	6.1	7.8	17.0	17.3	17.2	11.1	9.9	10.6
Private coaching	14.1	12.6	13.5	29.6	25.2	27.6	18.4	16.8	17.7
Other Expenses	51.0	48.4	9.0	48.0	47.7	47.9	50.2	48.2	49.3

Source: NSS (52nd Round) 1995-96, Report No.439 (52/25.2/1)

Households in urban areas spent more on different items of expenditure than the rural households. Both in rural and urban areas households spent more on male than female population. Among the items of expenditure stationery, books, exam fee and other fees are the major items of expenditure. There exist rural urban differences,

gender differences and item wise differences in terms of student expenditure on education in India. India is one of the world's largest economies with more number of youth populations. The households are ready to spend for their children irrespective of their financial background.

In India, the consumer expenditure increases from year to year and education is one among the important items for which people spends more.

3.6. Per-capita Spending on Education in India

Consumer spending on different items also known as personal consumption expenditure (PCE) is a good indicator of the financial health of an economy. The consumer spending per capita on various items of expenditure is given in the Table 3.13. The total per capita spending of consumer is Rs.77085 in 2017-18. The consumer spends more on groceries (27.88%) followed by housing (17.24%) and transportation (16%). Expenses for clothing is Rs.5485(7.12%), health (4.90%) and education (4.27%).It is clear that consumer spends more on meeting the day to day expenses such as groceries (27.88%), housing (17.24%) and transportation (16%). Education expenses (4.27%) are almost as important as health (4.90%) and clothing (7.12%).

Table 3.13
Consumer Spending Per Capita in India in 2017-18

Items of consumer expenditure	Amount spent to each item of expenditure	% of expenditure to each item of expenditure
Groceries	21491	27.88
Housing	13293	17.24
Transportation	12333	16.0
Clothing	5485	7.12
Health	3774	4.90
Discretionary	3765	4.88
Education	3292	4.27
Communication	1465	1.90
Miscellaneous	12186	15.80
Total	77085	100

Source: Ministry of Statistics & Programme Implementation (MoSPI) – 2(018)

Apart from these major items people are also willing to spend on discretionary items 4.88% and miscellaneous expenses also form a major part, 15.80% of total expenses.

3.6.1. Average Household Expenditure on Education in India

Expenditure (Rs.) per student on education relating to basic course during the current academic year in 2017-18 (all- India) is shown in the Table 3.14. There are gender differences in terms of the average spending on education; the spending on

male is grater in rural and urban areas. Regarding the area wise expenditure, urban expenditure per student is more than that of rural areas. Regarding the type of courses, professional and technical courses show more expenditure than general courses and in that also, expenditure on males and expenditure in urban areas are greater than females and rural areas. The male female differences in terms of education expenditure regarding courses can be seen everywhere whether rural or in urban areas. The expenditure in urban areas is almost double as that in rural areas regarding all courses and regarding gender. Thus expenditure per student per course clearly indicates the rural- urban differences, gender differences in terms of expenditure on education.

The percentage distribution of average expenditure relating to basic course per student pursuing general course during by item of expenditure is shown in the Table 3.14. In rural and urban areas the major item of expenditure includes course fee including tuition fee, examination fee, development fee & other compulsory payments. Books, stationery & uniform, transport, private coaching and other expenses occupy the next positions respectively. Regarding the different items of expenditure also, there exists gender differences and area differences. The average expenditure (Rs) relating to basic course per student pursuing general course during the academic year for each level of current attendance is seen in the Table 3.15.

Table 3.14

Expenditure per Student on Education in Basic Course in 2012

Type of course	Average Expenditure (Rs)		
	Male	Female	Person
Rural			
General course	5579	4812	5240
Technical/ professional course	32376	31622	32137
Any course(general/ technical/ professional)	6362	5277	5887
Urban			
General course	17123	15282	16308
Technical/ professional course	68700	58120	64763
Any course(general/ technical/ professional)	21381	17978	19893
Rural+ Urban			
General course	8797	7742	8331
Technical/ professional course	51844	47421	50307
Any course(general/ technical/ professional)	10721	8955	9948

Source: Computed from NSS (75th Round, 2017-18), NSS KI (75/25.2)

In rural areas, at the school level, the expenditure on higher secondary education is more and that of males are more than that of females. The expenditure is lowest in case of primary education. In the case of expenditure on education after school education, expenditure on post-graduation & above courses is more. The expenditure is lowest in case of diploma/ certificate course below graduation. In urban areas, the amount spent on all levels of education shows a tremendous increase than that of rural areas.

At the school level, the expenditure on higher secondary education is more and that of males are more than that of females. The expenditure is lowest in case of primary education. In the case of expenditure on education after school education, expenditure on diploma/certificate course below graduation shows much increase than that of other sectors. The expenditure is lowest in the case of graduation. The average expenditure per student pursuing general Education at different levels of education is given in the Table 3.16 (b).

Table 3.15

Percentage Distribution of Average Expenditure per Student Pursuing General Course -2016

Item of expenditure	Percentage		
	Male	female	Person
Rural			
Course fee including tuition fee, examination fee, development fee & other compulsory payments	43.9	41.5	42.9
Books, stationery& uniform	25.3	26.6	25.9
Transport	13.6	14.0	13.8
Private coaching	11.1	11.4	11.2
Other expenses	6.1	6.6	6.3
All- items	100	100	100
Urban			
Course fee including tuition fee, examination fee, development fee & other compulsory payments	57.5	57.3	57.4
Books, stationery& uniform	15.0	15.9	15.4
Transport	10.2	10.9	10.5
Private coaching	12.9	11.5	12.3
Other expenses	4.4	4.3	4.4
All- items	100	100	100
Rural + urban			
Course fee including tuition fee, examination fee, development fee & other compulsory payments	51.3	50.2	50.8
Books, stationery& uniform	19.8	20.7	20.1
Transport	11.7	12.3	12.0
Private coaching	12.1	11.5	11.8
Other expenses	5.2	5.3	5.2
All-items	100	100	100

Source: Computed from NSS (75th Round, 2017-18), NSS KI (75/25.2)

In the case of expenditure on education after school education, expenditure on diploma/certificate course below graduation shows much increase than that of other sectors. The expenditure is lowest in case of graduation. Expenditure on education is lower in the case of primary and upper primary education. The total average expenditure considering all levels of education, rural, urban, male and female are equal to Rs.8331. This clearly shows that there are wide differences with respect to average expenditure on education at rural and urban areas and males and females. Thus the average expenditure per student at different levels of education at school education and higher education shows how much the households spend for their child at different stages of education.

Table 3.16 (a)

Average Expenditure per Student at Different Levels of Education in 2016

Level of Attendance	Average Expenditure (Rs)		
	Male	female	Person
	Rural		
Pre-Primary	5879	5378	5655
Primary	3780	3250	3545
Upper primary/ Middle	4267	3570	3953
Secondary	6154	5479	5856
Higher secondary	9943	8106	9148
Diploma/ certificate below graduate	8017	9228	8545
Diploma/ certificate graduate and above	13386	11579	12415
Graduate	11748	11993	11845
Post graduate & above	16174	15368	15827
All	5579	4812	5240
	Urban		
Pre- primary	15370	13433	14509
Primary	14000	12878	13516
Upper Primary/ Middle	15986	14537	15337
Secondary	18548	16210	17518
Higher secondary	25887	21081	23832
Diploma/ certificate below graduate	35785	10189	22281
Diploma/ certificate graduate and above	27198	10543	19979
Graduate	19241	17669	18485
Post graduate & above	20369	20515	20443
All	17123	15282	16308

Source: NSS (75th Round, 2017-18), NSS KI (75/25.2)

It is shown from the Table3.16 (b) that at the school level, the highest average expenditure per student is at the higher secondary level and the lowest is at the primary level. Regarding higher education, the highest expenditure is for post graduate and above courses and the lowest expenditure is for diploma and certificate courses below graduation. So it is important both from the part of Government and

household level to increase more resources for education to increase its expenditure and thereby increasing the quality of human capital. So it is understood from the above table and the analysis of household expenditure on school education in India that household invests less for female compared to male and there are rural urban differences in terms of household investment.

Table 3.16(b)
Average Expenditure per Student at Different Levels of Education in 2016

Level of Attendance	Average Expenditure (Rs)		
	Male	female	Person
	Rural + urban		
Pre- primary	9475	8405	8997
Primary	6365	5591	6024
Upper Primary/ Middle	7273	6367	6866
Secondary	9516	8376	9013
Higher secondary	15077	12221	13845
Diploma/ certificate below graduate	14197	9510	12045
Diploma/ certificate graduate and above	18411	11296	14823
Graduate	14288	14313	14264
Post graduate & above	18103	18119	18110
All	8797	7742	8331

Source: NSS (75th Round, 2017-18), NSS KI (75/25.2)

From the table 3.16 (b) it is evident that for pre- primary education, Rs.8997 is spent, for primary education it is Rs.6024, for upper primary education it is Rs.6866, for secondary education it is Rs.9013 and for higher secondary education it is Rs.13845. The expenses for diploma course below graduate are Rs.12045, diploma course above graduate are Rs.14823. The expenditure for graduate courses is Rs.14264 and post-graduation and above are Rs.18110. The average expenditure for all courses is Rs.8331. It is also seen that acquiring primary education is expensive in India. At all levels of school education it seems that educational expenses are high. It indicates the importance of argument against free education in India. Even the poor have to pay for the education of their child as the rich do for their child.

Disparity of Household Expenditure on School Education in India: A Comparative Analysis

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4.1. Introduction

The Kothari Commission report in 1966 was the first to make an attempt regarding the importance of public investment in education and also made an attempt to quantify the level of investment to achieve the target of universalization of education by 1986. There has been a growing concern among countries to study the nature and dimensions of inequalities across countries as well as within countries (Atkinson, 2015; Stiglitz, 2012; Piketty, 2014; Milanovic, 2016). The United Nations also included reduction of inequality as one of the Sustainable Development Goals. As education plays an important role in the development of a society and a country's economy, public provisioning of education is regarded as an effective and crucial strategy for ensuring inclusive education. India is one of the developing countries of the world with the feature of "unity in diversity". Indian education system after Independence has expanded in terms of educational institutions, enrollment, diversified courses, teachers and other physical facilities. The country has also made substantial gains in health and education outcomes in the last few decades (Desai et.al, 2008).

In spite of all these tremendous achievement over years, the education system in India is pestered with a lot of problems. One of the serious problems of Indian education system is increasing inequality of education. The primary problem of Indian education centers on qualitative and quantitative aspects of education and there is no uniformity in the education system. Every state has different education system imparting education in regional language and English. The present education system is exam- oriented or rote learning. Inequality of education is found not only in the state level but in between rural and urban areas.

There are differences in economic development among the major states of India. Some states are economically advanced and some are backward and even within some states some regions are advanced and some are backward. This co-existence of advanced and backward states and advanced and backward regions within each state is known as regional disparity or regional inequality or regional imbalance. Inequalities are divided into monetary inequality (with respect to consumption, income and wealth) and non-monetary inequality (with respect to health and education). There are differences across social groups, states and rural urban areas showing that there are wider differences in opportunity to access basic services. The differences across states are also regarded as an important source of rising inequality and the regional inequalities are also increasing (Desai et.al, 2008).

All India Educational Survey shows that schools in rural areas and schools in city's slums lack proper basic facilities. The study shows that there is glaring inequalities in India with dualistic education system. The country with tremendous achievement in educational institutions and other quantitative aspects of education on the one hand and not achieving or attaining improvement in all the aspects of quality of schooling. The school education system in India is the largest in the world meeting the needs of over 260 million young people each year. Indian school education system is jointly managed by the national and state levels (Kochar, 2007). Many initiatives have been undertaken from time to time to improve access to quality schooling particularly for the economically and socially disadvantaged sections of the society.

India, with over 1.5 million schools, over 8.7 million primary and secondary teachers and more than 260 million enrollments, is the most complex education system in the world. India is demographically one of the youngest countries in the

world and is regarded as the country at the peak of its demand for educational provision. According to the 2011 census, the national literacy rate is estimated as 74 per cent and Kerala with the highest 94% and Bihar with 64%. Uttar Pradesh is most populous state with 17% of the country's population. The literacy rate in Bihar is too low due to high rural population suggesting a high correlation between literacy rate and population. There are differences in terms of literacy rates, enrollment, attendance ratios, and expenditure on education and learning outcome within the country. These factors or areas are to be studied in detail to study the disparity of school education in India (Kochar, 2001).

4.2. Enrollment in India

The access to schooling can be measured by school enrollment which is the count of the number of children who have registered with all schools in a nation. India attained universal enrollment at the elementary level (class I-VII) but the enrollment falls consistently with successive levels of education. India's enrollment rate in primary education (I-V) is comparable to that of the developed countries of the world. However it falls behind these countries after Std VI. Enrollment at the higher education level and even at the school level in secondary and senior secondary levels is also low. In India, nearly 226 million children are enrolled in schools and of which 90 million are attending 75000 private schools across the country.

4.2.1. Gross Enrollment Ratio

School enrollment is an important factor in determining the access to schooling and it plays a very important role in bringing about more educational opportunities to the people of the nation. Gross Enrollment Ratio (GER) of school education in India in the year (2014-15) and 2016-16 is being compared in the Table 4.3. The enrollment of SC, ST and all categories are shown in the Table 4.4. Compared to 2014-15, the enrollment of all categories of people is low in 2015-16. At the primary level, the enrollment rate of females is commendable. In the case of upper primary and secondary levels also female enrollment is good. The enrollment rate at upper primary and secondary levels also increased during these years. The enrollment at the elementary level also showed a mild increase.

At senior secondary levels enrollment rate falls compared to other levels of education and at the higher education level it falls considerably. The enrollment at the

primary level are comparatively higher than that of higher levels of school education and higher education is mainly due to the tremendous achievement of Universalization of Elementary education (UEE) which helps to bring about more educational access and equality in opportunity in the education sector. Enrollment in India by educational level in the years 2014 and 2015 is given in the Table 4.3. Enrollment at the primary and upper primary levels is comparatively high than secondary and higher than secondary levels. In total, the enrollment at all levels of education did not bring much progress.

Enrollment at the primary level showed a negative change from 2014 to 2015, despite the fact that the enrollment at the primary level is comparatively higher than that of the other higher levels of school education. The other levels of education, i.e., upper primary, secondary and higher secondary levels showed a slight improvement in the enrollment rate during the same period. Gross enrollment ratio in India at different stages of education as a percentage of population in the appropriate age groups over years, i.e. from, 2001 to 2013-14 is shown in the Table 4.1. Enrollment rate at the primary level is comparatively better than secondary and higher secondary levels.

Table 4.1
Gross Enrollment Rate (GER) in India for All Categories of Students

Level/ year	Primary (I-V) 6-10 years			Upper primary (VI-VIII) 11-13 years			Secondary (IX-X) 6-13 years		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1950-51	60.6	24.8	42.6	20.6	4.6	12.7	46.4	17.7	32.1
1960-61	82.6	41.4	62.4	33.2	11.3	72.5	65.2	30.9	48.7
1970-71	95.5	60.5	78.6	46.5	20.8	33.4	75.5	44.4	61.9
1980-81	95.8	64.1	80.5	54.3	28.6	41.9	82.2	52.1	67.5
1990-91	94.8	71.9	83.8	80.1	51.9	66.7	90.3	65.9	78.6
2000-01	104.9	85.9	95.7	66.7	49.9	58.6	90.3	72.4	81.6
2005-06	112.8	105.8	109.4	75.2	66.4	71.0	98.5	91.0	94.9
2006-07	114.6	108.0	111.4	77.6	69.6	73.8	100.4	93.5	97.1
2007-08	115.3	112.6	114.0	81.5	74.4	78.1	102.4	98.0	100.3
2008-09	114.7	114.0	114.3	82.7	76.6	79.8	102.5	99.6	101.1
2009-10	113.8	113.8	113.8	84.3	79.0	81.7	102.5	100.4	101.5
2010-11	114.9	116.3	115.5	87.5	82.9	85.2	104.5	103.3	103.9
2011-12	105.8	107.1	106.5	82.5	81.4	82.0	97.2	97.6	107.4
2012-13	104.8	107.2	106.0	86.6	84.6	82.5	95.6	98.6	107.0
2013-14	100.2	102.6	101.4	86.3	92.8	89.3	95.1	91.1	107.0
2014-15	98.9	101.4	100.1	87.7	95.3	91.2	94.8	99.2	96.9
2015-16	97.9	100.7	99.2	88.7	97.6	92.8	94.5	99.6	96.9

Source: Educational statistics at a Glance, MHRD, Govt of India, 2018.

But in secondary and higher secondary levels, the enrollment increased considerably from 2001 to 2014-15 than at primary level. Regarding gender, the enrolment rates of female students are higher than that of males at all stages of education except in the years such as 2012-13 and 2013-14. The enrollment of male

students only showed a decrease from 104.90 in 2001 to 98.10 in 2013-14. In between these years there was an increase and decrease in enrollment rates. The male-female differences in enrollment at different educational levels decreased over the years and the difference is much wider in higher secondary classes. The gross enrollment rate in India in various years for all categories of students and at all levels of school education is given in the Table 4.6. The enrollment rate increased considerably from 1950-51 to 2015-16. There are differences in male and female enrollment rate and males are enrolled more than females at all levels of education and in all years. Enrollment rate at primary level are higher than that of secondary and upper primary levels. The gap in male and female enrollment also narrowed during the years. Enrollment rate in the primary level is higher compared to other levels of education. The level-wise enrollment in India at primary, upper primary and secondary levels from 1950-51 to 2015-16 are presented in the Table 4.2 (a).

Table 4.2 (a)
Level wise Enrollment in India

Level/ year	Primary (I-V)			Upper primary (VI-VIII)			Secondary(IX-X)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1950-51	138	54	192	26	5	31	NA	NA	NA
1960-61	236	114	350	51	16	67	NA	NA	NA
1970-71	357	213	570	94	39	133	NA	NA	NA
1980-81	453	285	738	139	68	207	NA	NA	NA
2000-01	640	498	1138	253	175	428	116	74	190
2005-06	705	616	1321	289	233	522	145	105	250
2006-07	711	626	1337	299	246	545	149	110	259
2007-08	711	644	1355	311	262	573	159	123	282
2008-09	706	647	1353	314	270	584	165	130	295
2009-10	697	639	1336	317	278	595	169	138	307
2010-11	701	646	1347	327	292	619	175	143	318
2011-12	726	672	1398	331	299	630	186	155	341
2012-13	696	652	1348	333	317	650	183	163	346
2013-14	686	638	1324	341	323	664	197	176	373
2014-15	676	629	1305	345	327	672	201	182	383
2015-16	669	622	1291	347	329	676	205	186	391

Source: Educational statistics at a Glance, MHRD, Govt of India, 2018

It is clear from the Table 4.2(a) that enrollment at all levels of education for all categories increased tremendously from 1950-51 to 2015-16. The enrollment at the primary level is comparatively higher than the upper primary and secondary levels. It is because of the universal enrollment of students at primary levels, the enrollment is high and as the level changes enrollment falls considerably. The enrollment of upper primary students is comparatively higher than that of secondary level. It is also clear

that the enrollments of male students are greater than that of females. The differences in male and female enrollment rates are different at different levels of education and the male- female differences at all levels narrowed from 1950-51 to 2015-16. Thus it is clear that enrollment of school students as a good indicator of school access considerably falls at higher levels of school education. This is due to so many other factors which are personal or home related. The enrollment at the senior secondary and higher education levels in India in various years is presented in the Table 4.2 (b). The enrollment at the secondary levels is comparatively lower than higher education level. Compared to male enrollment, female enrollment is also low at all levels of education. At higher levels of education also, there are wide difference between male and female enrollment.

Table 4.2 (b)
Level wise Enrollment in India

Level/year	Senior secondary			Higher Education		
	Male	Female	Total	Male	Female	Total
1950-51	13	2	15	4	0	4
1960-61	27	7	34	8	2	10
1970-71	57	19	76	26	7	33
1980-81	76	34	110	35	13	48
2000-01	61	38	99	54	32	86
2005-06	78	56	134	88	55	143
2006-07	81	60	141	96	60	156
2007-08	93	70	163	106	66	172
2008-09	95	74	169	112	73	185
2009-10	99	79	178	124	83	207
2010-11	109	86	195	155	120	275
2011-12	116	94	210	162	130	292
2012-13	107	93	200	166	135	301
2013-14	118	105	223	175	148	323
2014-15	124	111	235	185	157	342
2015-16	130	117	247	186	160	346

Source: Educational statistics at a Glance, MHRD, Govt of India, 2018

The enrollment of males were 13 and that of females were 2 in 1950-51 increased to 130 for males and 117 for females in 2015-16 at the senior secondary level. At the higher education level in 1950-51, it was 4 for males and 0 for females, increased to 186 for males and 160 for females in 2015-16. The total enrollment at the senior secondary level was 15 in 1950-51 and increased to 247 in 2015-16. In the case of higher education, it was 4 in 1950-51 and increased to 346 in 2015-16. So it is clear that the increase in enrollment in higher education sector was much wider than that of senior secondary levels.

4.2.2. Gross Attendance Ratio

Gross attendance ratio is the number of students attending a given level of education at any time during the reference academic year, without considering age and expressed as a percentage of the official school age population corresponding to same level of education. The Gross Attendance Ratio (GAR) in India at different levels of school education in 1995-96 and 2007-08 is compared in the Table 4.3. There are rural-urban differences, in terms of gross attendance ratio and it is not shown any positive increase during these years. The enrollment at the primary level was 85, upper primary was 65, secondary were 51 and higher secondary was 32 in 1995-96. It increased to 104 at primary level, 84 in upper primary, 70 in secondary and 48 in higher secondary levels.

Table 4.3

Gross Attendance Ratio in India

2014-15									
Class group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
I-V	102	100	101	102	102	102	102	100	101
VI-VIII	91	88	90	93	88	91	92	88	90
IX-X	86	84	85	90	94	92	87	87	87
XI-XII	63	58	61	73	75	74	66	63	65
2017- 18									
Class group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
I-V	101.7	99.9	100.9	102.4	102.0	102.2	101.9	100.4	101.2
VI-VIII	94.8	94.2	94.5	94.3	93.8	94.0	94.7	94.1	94.4
IX-X	85.2	82.3	83.9	93.8	93.7	93.7	87.4	85.1	86.4
XI-XII	66.4	61.1	64.0	80.2	79.2	79.7	70.3	65.9	68.3

Source: NSSO 52nd Round (1995-96) and 64th Round (2007-08)

The Gross Attendance Ratio (GAR) in India in 2014-15 and 2017-18 is compared in the Table 4.3. There are rural-urban differences, in terms of gross attendance ratio and it is not shown any positive increase during these years. The gross attendance ratio at the primary level was 101, upper primary was 90, secondary were 87 and higher secondary was 65 in 2014-15. It increased to 101.2 at primary level, 94.4 in upper primary, 86.4 in secondary and 68.3 in higher secondary levels. It is clear that there was not a steady increase in gross attendance ratio in these years.

4.2.3. Net Attendance Ratio

The Net Attendance Ratio (NAR) in India in 2014-15 and 2017-18 is clearly shown in the Table 4.4. Net attendance ratio is the total number of children in the age group of 6-10 who attend school as a percentage of the total number of children in the same age group. The ratio is used to calculate the number of educated individuals in the same age category. This attendance ratio is needed to understand the nation's educational status as education is one of the important sectors of national economy

Table 4.4
Net Attendance Ratio in India

2014-15									
Class group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
I-V	84	82	83	85	84	85	84	83	84
VI-VIII	64	61	63	67	64	66	64	62	63
IX-X	51	49	50	56	59	58	52	51	52
XI-XII	36	33	35	45	47	46	38	37	38
2017- 18									
Class group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
I-V	86.6	84.8	85.8	87.7	86.2	87.0	86.8	85.1	86.1
VI-VIII	72.1	70.7	71.5	73.5	75.0	74.2	72.5	71.8	72.2
IX-X	56.6	55.2	56.0	61.5	63.7	62.5	57.9	57.3	57.6
XI-XII	40.3	39.2	39.8	53.1	52.3	52.8	43.9	42.7	43.4

Source: NSSO71st Round (2014-15) and 75th Round (2017- 18)

It is shown that there was a steady improvement in net attendance ratio over these years. There are rural-urban differences, male-female differences in terms of net attendance ratio. From 2014-15 to 2017-18 there is tremendous improvement in terms of both area wise and gender wise in net attendance ratio. The Net Attendance Ratio at the primary level was 84, upper primary was 63, secondary were 52 and higher secondary was 38 in 2014-15. It increased to 86.1 at primary level, 72.2 in upper primary, 57.6 in secondary and 43.4 in higher secondary levels in 2017-18. It is clear that there was a steady improvement in net attendance ratio over these years.

Thus it is clear from Table 4.4 that net attendance ratio as an indicator of educational status improved over the years. But it is more in the case of urban areas and in the case of females. It is also to be noted that in 2017-18 compared to previous years, there was a slight change in this trend, i.e. in the same year in urban areas at upper primary and secondary levels of education female net attendance ratio is more

than that of males. It is also regarded as an improvement in educational opportunities. In the same year it is also seen that the male-female differences in net attendance ratio also narrowed considerably indicating the importance of more educational access and equality of opportunities in India.

4.2.4. Age Specific Attendance Ratio

Age-specific attendance ratio in India in various years-a comparison based on various rounds of NSSO is shown in the Table 4.5. The enrollment of a specific single age enrolled, irrespective of the level of education as a percentage of the population of same age is given by the indicator age specific attendance ratio.

Table 4.5
Age- Specific Attendance Ratio in India

1995-96									
Age group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6-10	71	58	65	84	82	83	73	63	69
11-13	75	57	67	87	83	85	78	64	72
14-17	54	33	45	66	63	65	57	41	50
18-24	15	4	10	26	20	23	18	8	14
2014-15									
Age group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
5-14	90	88	89	92	91	92	90	89	90
15-19	75	72	73	81	83	82	77	75	76
20-24	32	24	28	40	38	39	35	28	32
0-29	4	2	3	6	3	5	4	2	3
2017- 18									
Age group	Rural			Urban			Rural +Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6-10	95.2	93.5	94.4	97.5	96	96.9	95.8	94.1	95
11-13	94.6	92.8	93.8	96.6	96	96.3	95.2	93.6	94.5
14-17	76.9	74.4	75.8	86.1	86.6	86.3	79.4	77.5	78.5
18-23	28.7	19.9	24.5	41.9	35.4	38.8	32.6	24.6	28.8

Source: NSSO 52nd Round, 71st Round & 75th Rounds.

This ratio is important in the sense that it gives an overall picture about the degree of educational participation of the population of a particular age. There is improvement in terms of this, and there are rural urban differences and male-female differences and different age groups in various years show difference in terms of attendance ratio. The age specific attendance ratio for different age groups improved considerably from 1995-96 to 2017-18. The male female differences also narrowed in all the years but improved significantly in 2017-18. When compared to rural areas, in

urban areas the differences are much lower. Thus it clearly indicates that the participation in the school education sector improved much over the years.

4.3. Drop-out and Gross Enrollment Ratio

The Gross Enrollment Ratio (GER) or Gross Enrollment Index (GEI) is a statistical measure used in the education sector to determine the number of students enrolled in schools at different levels. The dropout and Gross Enrollment ratio in 2007-16 is given in the Table 4.6.

Table 4.6
Dropout and Gross Enrollment Ratio 2007-16

States	Average Dropout Rate at the primary level		GER Primary Level		GER Upper Primary Level	
	2007-11	2012-16	2007-11	2012-16	2007-11	2012-16
Andhra Pradesh	5.9	5.3	100.9	94.4	79.7	81.0
Bihar	9.7	8.7	128.7	97.9	48.0	82.9
Chattisgarh	6.9	2.9	123.9	105.8	84.2	99.9
Goa	5.1	0.6	61.4	106.7	60.8	105.2
Gujarat	4.2	0.8	107.9	100.3	59.3	91.3
Haryana	5.7	3.2	85.2	98.1	68.0	92.1
Jharkhand	12.0	6.4	152.8	109.6	65.9	92.6
Karnataka	4.0	2.4	107.7	102.3	69.6	91.1
Kerala	0.9	0.0	77.6	96.2	84.8	97.0
Madhya Pradesh	7.8	7.1	141.6	109.7	92.1	97.9
Maharashtra	3.4	0.9	103.3	101.5	87.6	95.9
Odisha	9.7	3.5	115.3	105.8	75.4	87.1
Punjab	3.2	2.2	81.8	107.0	75.9	96.8
Rajasthan	11.6	6.4	117.0	102.7	75.3	84.1
Tamil Nadu	1.1	1.7	118.5	106.0	116.5	97.5
Uttar Pradesh	13.6	8.3	108.5	99.0	53.7	71.9
West Bengal	8.1	3.7	123.1	109.5	79.7	97.6
All States	8.1	4.6	114.9	102.5	73.1	87.7

Source: U- DISE Flash Statistics, Various Years, MHRD, Govt. of India

The average dropout rates and Gross Enrollment Ratio in different states help to reveal the status of elementary education in India. Different states in India shows differences with respect to average dropout rate at primary level, GER at primary level and upper primary level. The average dropout rate at the primary level from 2007-2011 to 2012-16 shows that the dropout rate of all states except Tamil Nadu, i.e. from 1.1 per cent to 1.7 per cent decreased considerably during the same period. The dropout rate was highest in Uttar Pradesh (13.6), Jharkhand (12.0) and Rajasthan (11.6) in 2007-11. Kerala (0.0), Goa (0.6) and Gujarat (0.8) recorded low dropout rates in 2012-16. GER at the primary level from 2007-11 to 2012-16 also showed a negative trend except some states like Goa, Haryana, Kerala and Punjab. Regarding

GER at upper primary level all states have shown a positive increase from 2007-11 to 2012-16.

4.4. Public Expenditure on Education of Major States in India

The ranking of the States by Per Capita Education Expenditure and Education Empowerment Index is shown in the Table 4.7. The responsibility of the central and state governments in increasing the expenses to education is on the rise nowadays. Financing of education in India recently is at crossroads. The quantum of public expenditure used by the union government is increasing and efforts are made to utilize it for the educational programmes and policies. Education policies of the government are determined at the national level than state levels as was originally envisaged in the constitution (Mukherjee, 2007).

Table 4.7

Ranking of States by Per-Capita Education Expenditure & Education Empowerment Index

States	Per child Education Expenditure (Rs)	Education & Empowerment Index
Himachal Pradesh	19443	0.82
Kerala	12925	0.98
Madhya Pradesh	6988	0.32
Maharashtra	11136	0.55
Odisha	8407	0.48
Rajasthan	7761	0.17
All- India		0.47

Source: Economic Survey, various years

In fact, there are differences in terms of expenditure incurred on education by different state governments and rural-urban differences also. The amount spent per student varied across states and is also different at various levels of school education. Education Empowerment Index (EEI) is a wider term encompassing equal opportunities, gender equality, fairer competition and equitable learning outcomes. The school education expenditure of the states was correlated with the Education and Empowerment Index and helps to understand the expenditures in relation with education expenditure. The per-child expenditure is highest in Himachal Pradesh, i.e. Rs.19443 and lowest in Rajasthan, Rs.7761.

Regarding the Education & Empowerment Index, Kerala tops high, 0.98 and Rajasthan with 0.17. Thus per child expenditure is closely related to education and empowerment index. The education inputs are the means used in an education system to achieve education objectives. It includes a wider area covering number of teachers,

school facilities, teaching materials supplied and the cost and level of financial resources used for education. Educational inputs of elementary schools in India from 2007-16 is shown in the Table 4.8. The percentage of government schools in total schools of all states except West Bengal (83.3% to 86.9%) decreased over the time period. This shows that the percentage of government schools in India is not increasing year by year.

Table 4.8
Educational Inputs of Elementary Schools in India

States	% of Government Schools in total schools		% Schools having girl's toilet in school		% schools having computer in school	
	2007-11	2012-16	2007-11	2012-16	2007-11	2012-16
Andhra Pradesh	77.8	72.8	87.6	91.4	22.4	28.5
Bihar	98.9	93.5	88.1	93.1	1.2	4.4
Chattisgarh	91.1	88.7	89.7	95.9	6.8	9.1
Goa	72.5	64.3	97.6	99.0	30.9	38.9
Gujarat	84.3	78.6	91.5	99.9	37.3	70.4
Haryana	81.3	67.9	97.3	99.8	26.1	43.1
Jharkhand	94.8	86.6	77.0	91.5	6.1	8.8
Karnataka	80.0	74.1	81.4	99.7	17.4	31.8
Kerala	40.4	30.2	98.1	98.5	78.4	91.7
Madhya Pradesh	82.7	80.0	91.6	96.6	11.2	13.1
Maharashtra	71.3	70.1	89.2	98.3	37.4	50.8
Odisha	90.8	86.1	86.0	96.7	8.6	11.3
Punjab	89.1	70.2	98.3	99.9	34.4	51.0
Rajasthan	75.5	68.5	90.7	96.0	13.5	24.4
Tamil Nadu	66.0	65.8	100.0	99.8	32.9	54.3
Uttar Pradesh	75.4	67.3	97.9	98.4	4.4	10.9
West Bengal	83.3	86.9	86.3	97.7	6.5	10.8
All States	80.0	75.4	88.9	95.5	15.4	23.4

Source: U- DISE Flash Statistics, Various Years, MHRD, Govt. of India

The percentage of schools having girl's toilet also increased over these years in all states. The percentage of schools having computer facilities also increased. Thus it is clear that the basic facilities or educational inputs at the elementary level increased over these years showing the betterment of school educational infrastructure in the different states of India.

4.5. Household Expenditure in Major States of India

Household investment in education is also known as the investment of individuals or parents to the education of their children. It is also known as private spending or expenditure on education. As public investment in education provides educational institutions, private investment in education only provides its utilization. Both investments are inter related and inter dependent with each other in the sense that in the absence of one leads to the underutilization of resources in the education sector (Nair, 2004). There are rural urban differences, state wise differences in terms of household expenditure on education.

4.5.1 Urban-Household Expenditure

There are differences in terms of urban household expenditure on education in India. There are states spending more on education and states with least spending on education. Haryana (Rs.267), Andhra Pradesh (Rs.231), Kerala (Rs.226), Karnataka (Rs.218) and Punjab (Rs.205) are the top five urban states in India that spend more on education. Gujarat (Rs.177), Madhya Pradesh (Rs.165), Tamil Nadu (Rs.161), Assam (Rs.157) and Bihar (Rs.132) are the lowest spending states (Table 4.9).

Table 4.9
Household Expenditure on Education of Different States in India

Top 5 Indian urban states	Average monthly Spending per person	Bottom 5 Indian urban States	Average monthly Spending per person
Haryana	267	Gujarat	177
Andhra Pradesh	231	Madhya Pradesh	165
Kerala	226	Tamil Nadu	161
Karnataka	218	Assam	157
Punjab	205	Bihar	132

Source: NSS 71st Round (2014), NSS KI (71/25.2)

There are huge differences between the most spending urban state per person (Haryana-Rs.267) and lowest urban spending state in terms of household expenditure on education, i.e. Bihar (Rs.132). This clearly shows the state wise disparity exists in terms of average household spending per person.

4.5.2. Rural-Household Expenditure

There are differences in terms of rural household expenditure on education in India. The rural household expenditure on education of different states is shown in the Table 4.10. There are states spending more on education and states with least spending on education. In the case of rural household expenditure on education Andhra Pradesh spends most, Rs.244 per person which is lower than Haryana (Rs. 267), the top spending urban state in India. It is followed by Kerala (Rs.208), Tamil Nadu (Rs.206), Maharashtra (Rs.191) and Punjab (Rs.188).

This clearly indicates the rural and urban differences in average spending per person on education exist in India. In the case of rural household expenditure that spent least on education is Uttar Pradesh (Rs.130) followed by Orissa (Rs.143), Assam (Rs.148), Bihar (Rs.152) and Madhya Pradesh (Rs.155). The annual and average monthly household expenditure on education of different states in India is given in the Table 4.11. In the case of annual total household sector spending on education Uttar Pradesh (Rs.248), Maharashtra (Rs.174) and Andhra Pradesh

(Rs.128) spend most and Kerala (Rs.65) and Haryana (Rs.63) spend least on education. In the case of average monthly spending on education per household Delhi (Rs.1308) tops the position followed by Haryana (Rs.1104) and Punjab (Rs.934).

Table 4.10
Household Expenditure on Education of Different States in India

States	Spending per person	States	Spending per person
Andhra Pradesh	244	Madhya Pradesh	155
Kerala	208	Bihar	152
Tamil Nadu	206	Assam	148
Maharashtra	191	Orissa	143
Punjab	188	Uttar Pradesh	130

Source: NSS 71st Round (2014), NSS KI (71/25.2):

States like Rajasthan (Rs.571), Gujarat (Rs.577) and Himachal Pradesh (Rs.597) spend very low amount on education. The difference is large in terms of household spending on education with respect to annual household spending and average monthly spending.

Table 4.11
Annual and Average Monthly Household Expenditure on Education in India

States	spending on education	States	spending on education
Uttar Pradesh	248	Delhi	1308
Maharashtra	174	Haryana	1104
Andhra Pradesh	128	Punjab	934
Tamil Nadu	99	Jammu& Kashmir	681
Rajasthan	85	Kerala	653
West Bengal	83	Maharashtra	624
Gujarat	82	Uttar Pradesh	615
Karnataka	78	Himachal Pradesh	597
Haryana	63	Gujarat	577
Kerala	65	Rajasthan	571
All- India	1500	All- India	519

Source: NSS 71st Round (2014), NSS KI (71/25.2):

Thus it is clear from the state wise analysis of household expenditure on education in India that states differ in terms of expenditure on education and among them there are also wide rural and urban differences.

Determinants of Household Expenditure on School Education in Kerala

- 5.1. *Introduction*
- 5.2. *Schools and Students in Kerala*
- 5.3. *Literacy in Kerala*
- 5.4. *School Enrollment and Out of School Children in Kerala*
- 5.5. *Expenditure on Education*
 - 5.5.1. *Public Expenditure on School Education in Kerala*
 - 5.5.2. *Household Expenditure on School Education in Kerala*
- 5.6. *Determinants of Household Expenditure on Education in India*
- 5.7. *Analytical Framework*
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- 5.9. *Household Expenditure on Education in India*
- 5.10. *Determinants of Household Expenditure on Education in India*
- 5.11. *Household Expenditure on School Education in Kerala*
- 5.12. *Determinants of Expenditure on Education in Kerala*
- 5.13. *Determinants of Expenditure on Education in India and Kerala*

5. 1. Introduction

All school educational institutes are intended to promote learning and ample atmosphere for infrastructure development to provide better education outcome and to reduce drop out. Kerala greatly succeeded in this attempt and it is the first ever state in India to achieve universal literacy. Both central and local governments played an important role in promoting the school education system. As a part of that to achieve universal primary education, Kerala government implemented ‘Athulyam’ in 2014 and achieved its target in 2016. Kerala also ranks top in terms of remittances, mainly from Middle East region and accounts for the 25% of GDP from remittances itself and utilizes it mainly for the productive channels like education and health (Kerala Economic Review, 2018). The National Education Policy (2020) seeks to restructure

the school curricula and pedagogy in a new 5+3+3+4 design and universal foundational literacy and numeracy and formation of school complexes.

The government of Kerala spends a high percentage of expenditure for the development of the education sector. Schools in Kerala are run by the government or private trusts and individuals. The state has shown a tremendous growth in the number of educational facilities at all levels during the last 50 years. Even though the status of education is remarkable and there are many land marking achievements in this sector, there are some issues that need to be given much care and attention. The state still requires more improvements to enhance academic quality at school and higher education levels and to make education more inclusive at all levels. The higher education sector in Kerala needs much attention and improvement. The main task of the Kerala government is to focus on the aspect of school education both at the school and higher education levels (George et.al, 2005).

There are some keen areas which need immediate interventions like imparting skills for employability through education, improving academic achievement, updating syllabi by paying heed to emerging demands both at the local levels, and designing new training programs for teachers to improve the standard of teaching and learning in educational institutions. Extra-curricular activities in the areas of arts and sports, specifically designed programs with professional expertise and assistance are needed to meet the needs of the disabled children (Nair, 2004). More focus should be centered on the areas like skill education, incorporating technology in the curriculum, programs and support activities that benefits the differently abled and on gender sensitivity. The demand for better quality schooling and professional education were growing in Kerala. The capacity of a large number of households to pay for education was increasing due to a number of reasons such as growth in per capita state domestic product (SDP), expansion of job markets both within the country and abroad, inflow of remittances, decrease in the number of children, reduction in household size etc. The capacity of the households to meet the growing private costs of education depends, to some extent, on the household income (Nampoothiri, 2004).

The household cost of education in Kerala was largely met by the increased external remittances also. In 1960s, 1970s and 1980s the growth in the per capita net state domestic product (NSDP) was quite low. But along with all these relevant factors, the government's capacity and willingness for public spending on education

has been coming down. Despite large volume of external remittances to the state, the state government has been facing recurrent fiscal crisis and this is the reason why the government has been reducing the budget allocation to education sector.

But at the same time the data brought out by the 61st round of National Sample Survey (2004-05) shows that on an average, the per capita expenditure on education by the rural households in Kerala was more than double the national average (Rs.41 for Kerala against Rs.18 for India). Regarding the per capita educational expenditure in rural areas Kerala ranked third after Haryana and Punjab. But urban Indian people spend more than urban Keralites (Rs.74 for India and Rs.66 for Kerala). The rural-urban differences in educational spending by households was much less was also high in Kerala compared to other Indian states. The proportion of households spending on private tuition was also high in the state.

5.2. Schools and Students in Kerala

Kerala with a literacy rate of 93.91% tops among the Indian states and put a high percentage of budget expenditure for the development of the education sector. In Kerala, schools are run by the government or private trusts and individuals. As per the report of education department of Kerala the state has shown tremendous growth in educational facilities at all levels during the last 50 years (Table 5.1).

Table 5.1

Number of Schools and Students in Kerala 2018-19

Category	Government schools	Aided schools	Unaided schools	Total schools
Number of schools	4693	7216	1042	12951
Number of students	1168586	2158452	389859	3716897
HS	1228	1432	458	3118
UP	870	1873	242	2985
LP	2595	3911	342	6848
Total	4693	7216	1042	12951

Source: Department of Economics & Statistics, Government of Kerala, DPI, 2019-20

There are 1400 + schools, 160k+ teachers and 20 k + non- teaching staff. The schools in Kerala are affiliated to Central Board of Secondary Education (CBSE), Indian Certificate of Secondary Education (ICSE), Kerala State Education Board and National Institute of Open Schooling (NIOS). The total number of schools and students in the schools of Kerala in 2018-19 is shown in the Table 5.1. There are 4693

government schools, 7216 aided and 1042 unaided schools with a total comprising 12951 schools in Kerala in 2018-19. The total numbers of students in the same year are 3716897. It is also clear that majority of the students and schools are in the aided sector followed by government and unaided sectors respectively.

5.3. Literacy in Kerala

Effective literacy skills bring more educational and employment opportunities. There are close and strong linkages between literacy, education and health. The spread of literacy has played a crucial role in the social and economic development of the state. Increased democratization, rights consciousness and civic awareness in the state are no doubt closely related to the high level of literacy which has existed for decades.

Among the Indian states Kerala ranks first and in case of female literacy also the state is far ahead and has made a tremendous progress. The male-female gap also narrowed and the state holds first place in female literacy with 92 per cent. The Kerala State also gave importance to Literacy Mission Authority (KSLMA) and has been implementing so many literacy and equivalency programmes by appointing ‘preraks’, representatives for propagating and continuing literacy programmes.

The literacy rate in Kerala since 1951 to 2011 is compared in the Table 5.2. Kerala has made tremendous achievement in the field of literacy. It also achieved to reduce the gender differences in terms of literacy during these years. The literacy rate in 1951 was 47.18% which increased to 93.91% in 2011. Kerala is also regarded as the first state in India to attain cent per cent literacy. There were 12,971 schools in Kerala in 2017-18. Out of this, 4695 (36.17%) are Government schools, 7216 (55.63%) are aided schools and 1060 (8.17%) are unaided schools.

Table 5.2
Literacy Rate in Kerala

Year	Persons	Male	Female
1951	47.18	58.35	36.43
1961	55.08	64.89	45.56
1971	69.75	77.13	62.53
1981	78.85	84.56	73.36
1991	89.81	93.62	86.17
2001	90.86	94.24	87.72
2011	93.91	96.02	91.98

Source: Kerala State Literacy Mission Authority

More schools are functioning in the Lower Primary (LP) section than Upper Primary (UP) or High School (HS) sections. Malappuram district has the largest number of schools (1559) followed by Kannur (1308) and Kozhikode (1282). Malappuram also has the largest number of Government (553) and unaided schools (199) in the state.

5.4. School Enrollment and Out of School Children in Kerala

So in this context, it is important to know the students enrolled and out of school children in Kerala. School enrollment at the secondary level in Kerala from 2009-10 to 2013-14 is shown in the Table 5.3. It is seen that there was not much increase in every year in the enrollment rate. There are no much differences in the enrollment of boys and girls also. Gross enrollment ratio at the secondary level from 2009-10 to 2013-14 shows that enrollment rate increases and decreases during these years. There are not many differences in the enrollment of boys and girls. GER of boys increased from 98.22 in 2009-10 to 100.9 in 2013-14 and that of girls increased from 96.8 to 97.6 during the same period.

Table 5.3

School Enrollment and GER at the Secondary Level in Kerala

Year	Enrollment Rate					
	Boys		Girls		Total	
2009-10	526033	98.22	509104	96.8	1035137	97.52
2010-11	535480	101.6	518309	99.7	1053789	100.6
2011-12	524403	80.31	522564	78.37	1046969	79.34
2012-13	419215	82.96	397823	77.67	8169598	80.31
2013-14	454699	100.9	426056	97.6	880755	99.2

Source: Census of India 2011 & UDISE 2013-14

Enrollment as a total also has not increased steadily during the same period. Stage-wise enrollment of students in schools in Kerala from 2013-14 to 2018-19 is given in the Table 5.4. There was an increase in the enrollment of lower primary students but there was no significant progress in upper primary and high school student's enrollment rate. The total enrollment also had not shown a progressive change during the same period.

Table 5.4

Stage-wise Enrollment of Students in Schools in Kerala

Year	LPS	UPS	HS	Total
2013-14	1240143	1201682	1406242	3848067
2014-15	1228361	1163276	1397590	3789227
2015-16	1263261	1135287	1364621	3763169
2016-17	1264303	1113277	1325240	3702820
2017-18	1282369	1101772	1296599	3680740
2018-19	1314944	1112767	1276107	3703818

Source: Directorate of Public Instruction

The total number of persons who enrolled in higher secondary and 10th equivalency courses in the years 2018, 2019 and 2020 in Kerala is shown in the Table 5.5. The enrollment of students as a total had not shown a steady improvement; rather it shows an increase followed by a corresponding decrease during the time period. The enrollment of female higher secondary students, male, transgender, SC, ST, differently abled and the total enrolment both at the 10th and higher secondary level showed a decrease from 2018 to 2020.

The stage-wise drop out ratio in the schools of Kerala in different levels of education in 2016-17 and 2017-18 is shown in the Table 5.6. It is clear that the dropout rate at all levels of education, LP, UP and HS decreased during the same period. The dropout rate is comparatively low at high school level. The dropout rate of LP schools decreased from 0.20 to 0.15, UP schools decreased from 0.11 to 0.10 and that of HS decreased from 0.33 to 0.22 during the same period.

Table 5.5

Number of Students Enrolled in Higher Secondary and 10th Classes in Kerala

Course	Year	Female	Male	Transgender	SC	ST	Differently Abled	Total
Higher Secondary	2018	19702	14052	39	9308	1331	288	33793
	2019	19792	12842	36	7779	1220	454	42123
	2020	9524	14252	30	5273	759	371	30209
10 th	2018	15225	21263	40	8925	1620	354	36528
	2019	15567	18460	29	7786	1381	748	43971
	2020	10898	11026	22	5148	839	613	28546

Source: Kerala Economic Review, 2020

The lower dropout rate in the school education in Kerala is definitely an indicator of educational attainment and the students out of schools in the state are reaching to be at zero levels. But in 2019 there were a steady improvement at all these levels and the overall trend in enrollment at these levels not shown a progressive change. The district-wise dropout ratio in Kerala in 2017-18 & 2018-19 in Kerala is given in the Table 5.7. Kerala has achieved a near zero dropout rate compared to other

states in India. It is also apparent that there are no much wide differences in the dropout rate of students among different districts in Kerala.

Table 5.6
Stage-wise Dropout Ratio in Schools in Kerala

Year	2016-17	2017-18
Total	0.22	0.16
LP	0.20	0.15
UP	0.11	0.10
HS	0.33	0.22

Source: Directorate of Public Instruction

The dropout rate is high in ‘Wayanad’ and it is 0.62 and low in ‘Alappuzha’ district and it is 0.02. The district wise classification also shows that there are not many differences in dropout rate among various districts and compared to 2017-18 it shown a decline in 2018-19. Kerala economy has completely revolutionized the education system as a whole. The state with the highest levels of literacy also gives importance to expenditure on education also. A substantial portion of the state government’s expenditure is earmarked for the educational sector. The state also gave importance to female education and with least gender differences in terms of all aspects of education. During the first year of the 12th plan an amount of Rs.590.24 crores had been earmarked for the education sector of which 98.78 percent was expanded.

Table 5.7
District-wise Dropout ratio in 2017-18 & 2018-19 in Kerala

District	SC		ST		Others		Total	
	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19
Thiruvananthapuram	0.14	0.12	0.51	0.22	0.16	0.11	0.16	0.13
Kollam	0.10	0.07	0.28	0.20	0.08	0.05	0.09	0.06
Pathanamthitta	0.06	0.02	0.11	0.11	0.07	0.03	0.07	0.03
Alappuzha	0.02	0	0	0	0.04	0.02	0.04	0.02
Kottayam	0.12	0.10	0.51	0.04	0.14	0.07	0.14	0.08
Idukki	0.39	0.40	1.2	0.99	0.48	0.21	0.51	0.33
Ernakulam	0.17	0.17	0.41	1.88	0.21	0.20	0.21	0.24
Thrissur	0.11	0.13	1.13	3.24	0.08	0.05	0.09	0.08
Palakkad	0.18	0.06	1.07	0.59	0.24	0.12	0.25	0.14
Malappuram	0.03	0.15	2.64	3.59	0.08	0.06	0.09	0.09
Kozhikode	0.07	0.05	0.42	0.11	0.07	0.05	0.07	0.06
Wayanad	0.38	0.17	2.59	2.11	0.26	0.10	0.84	0.62
Kannur	0.14	0.23	0.63	0.74	0.13	0.04	0.15	0.07
Kasaragod	0.41	0.44	0.18	0.27	0.22	0.13	0.23	0.16
Total	0.13	0.12	1.42	1.29	0.14	0.08	0.16	0.12

Source: Directorate of Public Instruction

The outlay on education was significantly increased during the last five years and in 2016-17 the sector was allocated an amount of Rs.1330.79 crores for education.

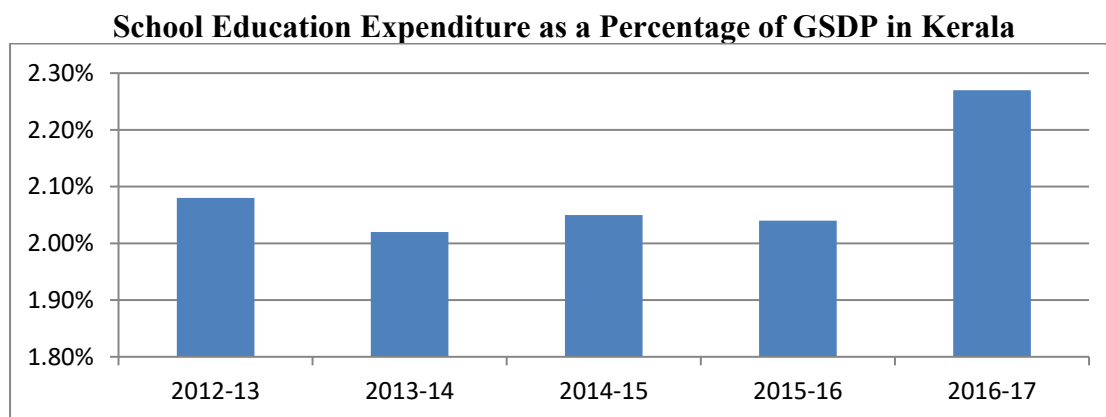
5.5. Expenditure on Education

The government of Kerala has increasing its outlay on education over the past years. Kerala is going through fiscal decentralization. The per capita expenditure per student by the government is also increasing. The effect of the rise in expenditure by the government can be well revealed or reflected through the indicators like number of schools, enrollment, dropout rates, examination results and so on. The improvement and attainment Kerala had attained on all these dimensions helped the government sector to divert more of its resources to the education sector.

5.5.1. Public Expenditure on School Education in Kerala

Spending on education as a percentage of total expenditure in Kerala shows a declining trend over the years. In spite of high improvement in the social sector Kerala's investment in overall education sector shows a slow downfall which shows that the state is unable to invest more on education in the coming future. There are so many reasons for the decrease in the expenditure on education. The school education expenditure as a percentage of GDP from the years 2012-13 to 2016-17 is shown in the Figure 5.1. It is clear that there is not a steady increase or improvement in the school education expenditure as a total % of GDP. In 2012-13 it was 2.08% followed by 2.02% in 2013-14, 2.05% in 2014-15, 2.04% in 2015-16 and a slight improvement of 2.27% in 2016-17. The total share of expenditure on education to the total expenditure of the government need to be improved in Kerala.

Figure 5.1



Source: Centre for Budget & Policy studies (CBPF) Public Expenditure on School Education, 2019

Social sector expenditure will be the major concern to improve the quality of education in Kerala. The expenditure on education as a ratio to aggregate expenditure in Kerala in various years, from 2002-03 to 2019-20 is shown in the Table 5.8. It was 17.6% in 2002-03 and 14% as per the Budget estimates of 2019-20. Throughout the years there was not a steady improvement in the same. The figures also indicates that the ratio of education expenditure as a total of aggregate expenditure increases and decreases in some years. Overall, the trend shows that there was a decrease in the ratio of education expenditure.

Table 5.8

Government Expenditure on Education in Kerala (as a % of Aggregate Expenditure)

Year	Expenditure on Education
2002-03	17.6
2003-04	15.7
2004-05	16.2
2005-06	16.6
2006-07	17.1
2007-08	15.9
2008-09	16.7
2009-10	16.8
2010-11	17.0
2011-12	17.7
2012-13	17.2
2013-14	17.2
2014-15	16.4
2015-16	16.0
2016-17	16.2
2017-18	16.3
2018-19 (RE)	14.8
2019-20 (BE)	14.0

Source: Budget documents of the state governments, Various Years

RE: Revised Estimates, BE: Budget Estimates

Thus the Economic Survey in various years throws light on the fact that there is unimpressive investment in social infrastructure in Kerala, especially in the case of education. Kerala, being a developing and progressive economy it is unable to develop enough fiscal space to increase the expenditure on critical social infrastructure like education and health. Thus in Kerala the recent trend shows that a state which is known for investment in education is cutting outlays on education. Thus it is clear that Kerala needs more investment and more resources for increasing the expenditure on education in the coming years unless and otherwise there is a chance of again cutting the expenditure on education. The trends in per capita expenditure on

school education in Kerala are shown in the figure. Social consumption of education is one of the most important indicators of economy in sustainable economic development. There are various indicators of education such as literacy rates, attendance ratios, incentives received by students, expenditure incurred on education, educational wastage including dropping out and discontinuance etc.

5.5.2 Household Expenditure on School Education in Kerala

Household expenditure or the expenditure incurred by parents for the education of their child plays a very important role in the educational attainment of every child. Private expenditure on education is the expenditure incurred by households to their children who attend educational institutions, in the form of payment of course fees, purchase of books, stationery and uniforms, expenses on conveyance, private coaching etc. It includes a wide variety of items but the major items of expenditure incurred in rural and urban areas are shown in the Table 5.9. The public or government expenditure on school education in Kerala was also analyzed in the previous section. In this context it is important to look into the trend and pattern of household expenditure on education and that of school education in Kerala. Households spend more on technical and professional education. There are rural and urban household differences in terms of education. Urban households spend more on technical and vocational education. In rural areas, Rs.8269 is spent for general education, Rs.76942 for technical/professional education and Rs.24107 for vocational education.

Table 5.9
Average Household Expenditure per Student in Kerala

Sector	expenditure per student in current academic session		
	Type of Education		
	General	Technical/Professional	Vocational
Rural	8269	76942	24107
Urban	10128	90369	16928
Rural+ Urban	9007	83746	21157

Source: NSS 71st round (2014), NSS KI (71/25.2)

In urban areas it is Rs.10128, Rs.90369 and Rs.16928 respectively. In rural and urban areas on an average it is Rs.9007, Rs.83746 and Rs.21157 respectively.

Table 5.10**Average Household Expenditure on General Education in Kerala**

Level of general course	Average expenditure (Rs)per student		
	Rural	Urban	Rural+ Urban
Primary	7445	9542	8196
Upper Primary	6499	8469	7314
Secondary	8443	9193	8752
Higher Secondary	9374	11639	10375
Graduate	14697	15447	14996
Post Graduate & above	17811	24867	21649
Diploma	13422	12832	13310

Source: NSS 71st round (2014), NSS KI (71/25.2)

Average expenditure (Rs.) per student pursuing general education during current academic session for different levels of education is shown in the Table 5.10. Households in rural areas spend more on higher education. In the case of school education households in rural areas spend more on higher secondary and secondary education. In urban areas households also spend more on higher education. In the school level they spend more on higher secondary and primary education. In rural and urban areas, in the case of school education, households spend more on higher secondary education, Rs.10375 and spend more on post-graduation, i.e. Rs.21649 in the case of higher education.

Percentage distribution of item wise expenditure for general education and technical/professional education is given in the Table 5.11. Among the various components of expenditure, in the case of general education households spend more on course fee (41%), books (25%), and transport (16%). Private coaching (11%) and other expenditure includes (7%) of the total expenses. In the case of technical / professional education, households also spend more on course fee (66%). Other expenditures include (20%), books (9%), transport (4%) and private coaching only (1%).

Table 5.11
Household Expenditure on Different Items in Kerala

Components of Expenditure	General Education
Course fee	41 %
Books	25%
Transport	16%
Private coaching	11%
Other expenditure	7%
Total	100%
Average expenditure per course	9002

Source: NSS 71st round (2014), NSS KI (71/25.2)

Per student expenditure on general education, technical/ professional education and vocational education of Kerala are being compared with all- India level.

Table 5.12
Average Household Expenditure on Education by Type of Education in Kerala

Type of Education	Per student expenditure	
	Kerala	All- India
General Education	9326	6788
Technical/ professional Education	82232	62841
Vocational Education	19646	27676

Source: NSS 71st round (2014), NSS KI (71/25.2)

Kerala spends more on general education and technical/professional education. It is also noted that per student expenditure on vocational education is much lower than all-India level. Average Expenditure per student pursuing general education during academic session for different levels of education is shown in the Table 5.12. In Kerala rural households spend more on higher education and in the case of school education they spend more on higher secondary and secondary education. Urban households spend in the same pattern as rural households do. On the basis of all-India level also the same trend is seen but compared to Kerala, the amount spent by the households are comparatively low. The average expenditure per student pursuing general education during academic session for different levels of education are shown in the year 2014-15 is shown in the Table 5.13. The different levels of education with respect to rural and urban differences of Kerala and all-India are also shown in the table. In Kerala there are vast differences in terms of primary, upper primary, secondary, higher secondary education in rural and urban areas. In the case of all- India level also this is the same. But compared to all-India level the expenditure at all levels of education and at all areas are higher in Kerala except in urban areas. In

urban areas, the expenditure on school education at all broad levels is higher at all-India level than in Kerala.

Table 5.13
Average Household Expenditure on General Education in Kerala

Geography/Location		Primary	Upper Primary	Secondary	Higher Secondary	Estd (00) students pursuing general course
Kerala	Rural	7073	7126	8248	9595	37462
	Urban	9870	8696	10874	11187	28090
	Rural+ Urban	8330	7771	9296	10268	65551
All-India	Rural	2811	3242	5100	9031	1893318
	Urban	10083	11446	13547	20179	712361
	Rural+ Urban	4610	5386	7459	12619	2605679

Source: NSS 72nd round (2014), NSS KI (71/25.2):

In Kerala the total expenditure on general education is Rs.37462, in urban areas it was Rs.28090 and in total it was Rs.65551 in rural and urban areas. In the case of all India level, it was Rs.1893318, in rural areas it was Rs.712361 in urban areas and Rs.2605679 in rural and urban areas. Average expenditure (Rs.) per student pursuing general education by broad level of education is being compared by using the data from NSSO 52nd round (1995-96) and NSS 56th Round (2000-01) is given in the Table 5.14. In 1995-96, it is clear that the expenditure is more in the case of higher education. In the case of school education, the expense is more at the secondary and higher secondary level.

The all-India average expenditure at all broad levels of education is also higher than Kerala during the same period. In 2000-01, there had been a change, Kerala's education expenditure at all levels of education except above higher secondary education and all categories had shown a decrease than in 1995-96. Compared to all-India average, Kerala's education expenditure at all levels of education in 2000-01 is higher than 1995-96. In 1995-96, Kerala among the various items of household expenditure spends more on tuition fee followed by private coaching, transportation, uniform, books and stationery, exam fee, other fee and payments and other expenses. In the case of all-India, the expenditure is more in the case of private coaching followed by tuition fee, transportation, uniform, books & stationery, exam fee, other fee and payments and other expenses. In 2007-08, Kerala's

household expenditure on all items increased and spends more on tuition fee followed by books and stationery, transportation, uniform, private coaching, exam fee, other fee and payments and other expenses. In Kerala in 1995-96, the expenditure on education was Rs.1449 and the all-India average was Rs.1686 at all different levels of education. In 2000-01, Kerala's spending was Rs.1066 and that of all India was Rs.904. Thus compared to all India level average expenditure, Kerala's household expenditure on education increased during the same period.

Table 5.14
Average Annual Household Expenditure on Education on Items of Expenditure in Kerala

NSSO (56th Round) 1995-96								
Items of Expenditure								
	Tuition Fee	Exam fee, Other fee & Payments	Books & stationery	Uniform	Transport	Private coaching	Other expenses	Total
Kerala	677	153	314	339	390	602	121	1077
All-India	613	165	290	298	561	732	92	912
NSSO (64th Round) 2007-08								
Items of Expenditure								
	Tuition Fee	Exam fee, Other fee & Payments	Books & stationery	Uniform	Transport	Private coaching	Other expenses	Total
Kerala	1022	308	711	449	575	422	140	3627
All-India	675	340	530	264	204	346	100	2460

Source: NSSO (56th & 64th Rounds)

The average annual expenditure Rs. per student of age group (5-24) years on various items of Expenditure by using the data of various rounds of NSSO, 56 (1995-96) and 64 (2007-08) is shown in the Table 5.15. In the case of all-India, the expenditure is more in the case of tuition fee, books and stationery, private coaching, exam fee, other fee and payments, uniform, transport and other expenses. Thus it is clear that compared to other states in India, Kerala's household expenditure on education on different items of expenditure is remarkable. The amount Kerala devoted to the expenditure of a child also improved considerably during the years. The average expenditure Rs. per student in basic course in current academic year by type of course pursuing general course is being compared in the Table 5.16 by using the data from NSSO various rounds such as 64th round, 2007-08 and 75th round 2017-18. The average expenditure during these years of both Kerala and all-India improved tremendously over these years.

Kerala's education expenditure in the case of male, female and total is higher than all-India average expenditure during the same period. In 2007-08, Kerala's expenditure on education for male was Rs.3035 and for female was Rs.3440 and on an average it was Rs.3230. In all India it was Rs.2595 for male and Rs.2293 for female and on an average, it was Rs.2460. In 2017-18, as per the latest estimates, it was Rs.11139 for male, Rs.11300 for female and on an average it was Rs.11214. In India, it was Rs.8797, Rs.7742 and Rs.8331 respectively.

Table 5.15
Average Household Expenditure on General Education in Kerala

NSSO (64th Round) -2007-08			
	General Course		
	Male	Female	Person
Kerala	3035	3440	3230
All-India (Average Expenditure)	2595	2293	2460
NSSO (75th Round)-2017-18			
	Broad level of education		
	Male	Female	Person
Kerala	11139	11300	11214
All- India (Average Expenditure)	8797	7742	8331

Source: NSSO (64& 75th Round)

Two important features are clearly depicted in the table. In all the years, Kerala's household expenditure on education is more than that of all- India. Secondly, in Kerala, the expenditure on female is higher than that of male. This is a tremendous and remarkable achievement that Kerala had achieved in the education sector, by bringing about more educational opportunities, access and reducing gender differences than any other state in India.

5.6. Determinants of Household Expenditure on Education in India

All the households spend a considerable amount of money on their child's education. Households from all economic strata, even from lower socio- economic background such as Scheduled Caste, Scheduled Tribes (SC&ST) and low income groups spend a proportion of their income on their child's education. The most important items of school education include fees, uniform, transportation and books. Many of the parents do not discriminate their children, there are household related factors, school related factors and student related factors in determining the

expenditure on school education. There are substantial differences among households in the case of children attending government schools, government- aided schools and private schools (Tilak, 2002).

Expenditure on education is considered as one of the important factors for sustainable development. In India, expenditure on education is of two types: individual and institutional. Individual expenditure refers to the expenditure made by the students or their parents. So it is also known as household expenditure on education. Institutional expenditure is referred to as government or non-government expenditure on education. In India, household expenditure on education is quite sizeable, even households from lower income groups spend considerable amounts on acquiring education.

Even in the case of government primary and upper primary schools, students have to pay the huge amounts of examination and other fees. Household investment enables the utilization of educational facilities. Information on household expenditure on education is very limited (Rao, 2014). There is not much research on the extent of household expenditure and on the determinants of household expenditure on education. Household costs include direct/visible and indirect/invisible cost. The items included in expenditure of school education includes tuition fee, exam fee, other fees and & payments, books & stationery, uniform, transport, private coaching and other expenses. The average annual item-wise expenditure per student in rural and urban areas shows that household expenditure on education is much higher in urban areas than in rural areas. The results indicate that there is nothing like free education in India. Fees & transport form the most important items of expenditure at any level of education.

There is an acute shortage of resources in the education sector in India (Anuradha et.al, 2008). India's total public expenditure on education as a percentage of GDP also declined. Thus it is the duty of the government to provide more incentives to rural households and making education more affordable at each levels of education. Investments in education, thus, are divided into two categories: Individual and Institutional. Individual investment means the investment made by parents or households in their child's education. It is also known as household expenditure on education. Institutional investment means investment made by institutions, that is, public or government expenditure on education (Tilak, 2000). Both are important in

the sense that it is institutional investment that provides educational facilities and only individual investment enables its utilization. These two types of investment are interrelated and interdependent with each other and in the absence of any one, there is underinvestment in education. Thus, economic and non-economic benefits from education lead to the formation of human capital.

The determinants of household expenditure on education can be classified into household characteristics, individual characteristics, school related factors and development characteristics of the economy. Household Characteristics is related to the household related factors in determining the expenditure on education. They are classified into social, economic, demographic and education characteristics. Social characteristics are divided into Caste, Religion, Ethnic Background (it is based on caste & religion).

Economic characteristics are divided into household income, occupational level of the head of the household and landholdings. Demographic characteristics include size of the household. Education characteristics include educational level of the head of the household. Individual characteristics include gender of the student. School related factors include existence of school within the habitation, provision of school related incentives (mid-day meals, free uniforms and text books), Pupil-teacher ratio, trained teachers and the type of institution. Development characteristics of the economy include Village development factor and Village development index.

Among all determinants of household expenditure on education income is the most important factor. The qualities of human and physical infrastructure available in schools are regarded as the school related factors determining the household's decision to invest on their child's education. Apart from this, social, economic and cultural reasons (Religion, caste, household size, educational and occupational levels of parents) also determine parent's decision to spend on their child's education. Gender differences also determine household expenditure on education. In the case of public expenditure on education, richer states spend more on education compared to poorer states. The tax revenue and grants from the central government play a positive impact on education expenditure. Political factors (corruption) also determine government's decision to invest on education. There is a negative relationship between child population share (0-14 years) and public expenditure on education. The willingness of a household to invest in education is affected by a number of factors

such as (I) Personal and cultural perceptions, (II) Institutional factors, (III) Economic factors, (IV) Socio–demographic factors and (V) Cost of education and (VI) Other factors.

1. Personal and Cultural Perceptions

These are the beliefs or perceptions (including cultural) held by an individual or household in a region or a country. Personal and cultural perceptions include different aspects. Education should be financed from public resources. Parent’s sense of responsibility for child’s education plays an important role in shaping their future life. They spend a considerable share of their resources to ensure their children’s future. Parents may even view an investment in their children’s education as a means to guarantee their own safe future when they themselves get old. This can be regarded as a type of insurance policy or pension scheme. After the child grows up, finishes his or her education, and hopefully secures a good job, he or she would be expected to take care of their parents. Parents may feel no sense of responsibility for their children’s education if they consider that education should be provided only from public resources.

2. Institutional Factors

Institutional factors are those which help the parents to spend more on their child’s education. If they think that the quality in state schools is not adequate to ensure the best education possible, households, subject to availability of adequate resources, might feel obliged to invest their own resources in their children’s education. Household spending on education is considered an effective investment in education. Free elementary education in Kerala would certainly affect household expenditure on education, as households would be relieved from the burden of devoting resources on various levels of education. The financial instruments for students are generally aimed to support students through education and training. Examples of such instruments include subsidized school meals, subsidized transportation, grants, loans and scholarships. These instruments can be awarded at any level of education.

3. Economic Factors

These factors include labour market status and financial return from education. Labour market status is an important factor which determines household’s decision to

invest. An employed parent will be more ready to invest than an unemployed one because they expect more from their child. The expectations regarding increased salary in the future, also known as financial return from education also determines the household's decision to invest on their child's education.

4. Socio–Demographic Background

Certain factors have positive and negative effects on household's decision to invest in education. These include educational background of parents, the occupation of parents and participation rates at various levels of education.

5. Cost of Education

The expenditure on education can be classified into direct and indirect, monetary, non–monetary, economic, non-economic, social, private and opportunity costs.

6. Other Factors

These factors may not have any relation with the employment or career related incentives. The computer education for older learners is an example for this type of household investment on education. Therefore, it is enough to get a picture on the explanation of household expenditure on education in India and Kerala. In a nutshell, the total variables can be divided into demand and supply factors. Therefore, it is important to identify and examine some of the relevant factors which can determine the household expenditure on education in India and Kerala.

5.7. Analytical Framework

The analytical framework to find out the determinants of household expenditure on education can be expressed in a functional form. Thus household expenditure on education is a function of its determinants.

$$HEE = f(X)$$

In the equation, HEE is the household expenditure on education, which is the dependent variable, which depends on a set of independent variables, X, which are known as the determinants of household expenditure on education. The equation can be given in the functional form:

$$HEE = a + \beta_i X_i + C$$

Here 'a' is the intercept term which shows the average value of the

dependent variable which are set equal to zero. β_i is the regression coefficient that is to be estimated which measures the extent to which various variables X_i influence on the household expenditure on education and C is the random error term in the equation. By using the theoretical and empirical studies available a large set of variables are selected to relate with the household expenditure on education.

The study uses time period as 't' where $t = 1 \dots n$ and indicates a time trend. Ordinary Least Square estimates are used to account for the heteroscedasticity and panel specific auto-correlation among specific terms. Aggregate expenditure on education is calculated and analyzed at All India and State levels. The study also uses linear and logarithmic regressions to reduce the problem of heteroscedasticity. Linear regression is used to find out the relationship between dependent and independent variables.

5.8. Determinants of Household Expenditure on Education

The models on the determinants of household expenditure on education & financial returns in India & Kerala are given in the Table 5.16.

Table 5.16
Models on the Determinants of Household Expenditure on Education

SI No	Models
1	$HEEI = \alpha + \beta_1 GDPI_{it} + \beta_2 PCII_{it} + \beta_3 TNSI_{it} + \beta_4 GEEI_{it} + \epsilon$
2	$LN HEEI = \alpha + LN \beta_1 GDPI_{it} + LN \beta_2 PCII_{it} + LN \beta_3 TNSI_{it} + LN \beta_4 GEEI_{it} + \epsilon$
3	$GDPI = \alpha + \beta_1 PCII_{it} + \beta_2 TNSI_{it} + \beta_3 GEEI_{it} + \epsilon$
4	$LN GDPI = \alpha + LN \beta_1 PCII_{it} + LN \beta_2 TNSI_{it} + LN \beta_3 GEEI_{it} + \epsilon$
5	$PCII = \alpha + \beta_1 GDPI_{it} + \beta_2 TNSI_{it} + \beta_3 GEEI_{it} + \epsilon$
6	$LN PCII = \alpha + LN \beta_1 GDPI_{it} + LN \beta_2 TNSI_{it} + LN \beta_3 GEEI_{it} + \epsilon$
7	$TNSI = \alpha + \beta_1 GDPI_{it} + \beta_2 PCII_{it} + \beta_3 GEEI_{it} + \epsilon$
8	$LN TNSI = \alpha + LN \beta_1 GDPI_{it} + LN \beta_2 PCII_{it} + LN \beta_3 GEEI_{it} + \epsilon$
9	$GEEI = \alpha + \beta_1 GDPI_{it} + \beta_2 PCII_{it} + \beta_3 TNSI_{it} + \epsilon$
10	$LN GEEI = \alpha + LN \beta_1 GDPI_{it} + LN \beta_2 PCII_{it} + LN \beta_3 TNSI_{it} + \epsilon$
11	$GEEK = \alpha + \beta_1 GSDPK_{it} + \beta_2 PGSDPK_{it} + \beta_3 PCIK_{it} + \beta_4 TNSK_{it} + \beta_5 TRK_{it} + \epsilon$
12	$LN GEEK = \alpha + LN \beta_1 GSDPK_{it} + LN \beta_2 PGSDPK_{it} + LN \beta_3 PCIK_{it} + LN \beta_4 TNSK_{it} + LN \beta_5 TRK_{it} + \epsilon$

Source: Formulated functions; Prepared by the Investigator

Both simple, linear, multiple and logarithmic equations are given and the models are built on the basis of the equations. The study used regression equations to find out the relationship between dependent and independent variables in India and Kerala. The study also used level of significance, two-tailed tests to find out the significance of various determinants on the expenditure on education.

It is also found out that all these variable play an important role in determining the expenditure on education. The macro-economic variables that determine the household expenditure on education in India are Gross Domestic Product of India (GDPI), Per Capita Income of India (PCII), Total Number of Schools in India (TNSI) and Government Expenditure on Education in India (GEEI). In Kerala they are Gross State Domestic Product of Kerala (GSDPK), Per Capita Gross Domestic Product of Kerala (PGDSPK), Per Capita Income of Kerala (PCIK), Total Number of Schools in Kerala (TNSK) and Total Remittances to Kerala (TRK). All these macro-economic variables were formulated to study the influence of determinants on expenditure on education in India and Kerala (Table 5.17).

Table 5.17
Macro- economic Variables of Household Expenditure on Education in India

SI No	Notation of variables	Variables
1	HEEI	Household Expenditure on Education in India (Dependent Variable)
2	GDPI	Gross Domestic Product of India (Independent Variable)
3	PCII	Per Capita Income of India (Independent Variable)
4	TNSI	Total Number of Schools in India (Independent Variable)
5	GEEI	Government Expenditure on Education in India (Independent Variable)

Source: Derived from estimated functions; prepared by the investigator

5.9. Household Expenditure on Education in India

The determinants of Household Expenditure in India from 2004-05 to 2018-19 is shown in the Table 5.18. Household expenditure on education is the expenditure made by the parents on their child's education and also known as private expenditure on education (Uma, 2008).

Table 5.18
Household Expenditure on Education in India over Various Years (in Rs crores)

Year	Household Expenditure on Education (HEEI)	% change
2004-05	35255	0.00
2005-06	35276	0.059
2006-07	36634	3.84
2007-08	37629	2.70
2008-09	37639	0.02
2009-10	36650	-2.60
2010-11	36174	-1.20
2011-12	182378	404.0
2012-13	193725	6.20
2013-14	204453	5.40
2014-15	218080	6.60
2015-16	239029	9.60
2016-17	265188	10.90
2017-18	293953	10.80
2018-19	319656	8.70

Source: National Account Statistics (NAS), Various Years

It is a dependent variable and is a function of several independent variables. In India the estimates of private/household expenditure is given by National Account Statistics (NAS). The growth of household expenditure on education and the related variables (independent variables or determinants) will give insights on the relationship between dependent and independent variables from 2004-05 to 2018-19. So it is important to understand the important determinants of household expenditure on education in India as these determinants play a very important role in increasing the expenditure on education in India. Household expenditure on education in India is determined by a large set of macro-economic variables such as Gross Domestic Product of India (GDPI), Per-capita Income of India (PCII), and Total number of schools in India (TNSI) and Government or Public Expenditure on education in India (GEEI). These independent variables affect the household expenditure on education in India.

5.10. Determinants of Household Expenditure on Education in India

Gross Domestic Product of India (GDPI), Per capita income of India (PCII), Total number of schools in India (TNSI) and Government Expenditure on Education in India (GEEI) are the independent variables or determinants of household expenditure on education in India.

Table 5.19 (a)
Determinants of Household Expenditure on Education in India

Year	Gross Domestic Product of India (GDPI)		Per capita income of India (PCII)	
	Amount (in Rs crores)	Percentage change	Amount (in Rs crores)	Percentage change
2004-05	5480380	0	45611	0
2005-06	5914614	7.9	48387	6
2006-07	6391375	8	51431	6.2
2007-08	6881007	7.6	54649	6.2
2008-09	7093403	3	55101	0.8
2009-10	7651078	7.8	58442	6
2010-11	8301235	7.8	62170	6.3
2011-12	8736331	5.2	63462	2
2012-13	9213017	5.4	65538	3.2
2013-14	9801370	6.3	68572	4.6
2014-15	10527674	7.4	72805	6.1
2015-16	11369493	7.9	77659	6.6
2016-17	12308193	8.2	82931	6.7
2017-18	13175160	7	87623	5.6
2018-19	13981426	6.1	92565	5.6

Source: (MoSPI), Selected Educational Statistics, World Bank, IMF & Economic Survey

The percentage changes in each year are also shown to understand the extent of increase in the independent variables that affect the dependent variable, i.e. household expenditure on education in India. India's GDP (GDPI) increased from Rs.480380 in 2004-05 to Rs.13981426 crores in 2018-19 (Table 5.19 (a)). The changes are at a steady rate. Per capita income of India also showed a positive increase during the same period. It is also clear that per capita income not increased much faster like GDP. It was Rs.45611 crores in 2004-05 and increased to Rs.92565 crores in 2018-19. Total number of schools in India (TNSI) and Government Expenditure on Education in India (GEEI) are the independent variables or determinants of household expenditure on education in India. The total number of schools in India increased from 1194300 in 2004-05 to 1556567 in 2018-19. It is also evident that number of schools is not increased at a positive and steady rate at all years. In some years, i.e. in 2010-11, 2011-12 and 2014-15 it also showed a negative change. But generally, there was an improvement in the number of schools in India (Table 5.19 (b)).

Table 5.19(b)

Determinants of Household Expenditure on Education in India

Year	Total number of schools in India (TNSI)		Government Expenditure on Education in India (GEEI)	
	Number of schools	Percentage change	Amount (in Rs crores)	Percentage change
2004-05	1194300	0.0	81280.85	0.0
2005-06	1220728	2.2	94483.7	16.2
2006-07	1260004	3.2	110340.4	16.7
2007-08	1285991	2.0	125379.6	13.6
2008-09	1330778	3.4	152822.4	21.8
2009-10	1407959	5.7	190136.1	24.4
2010-11	1399408	-0.6	233510.1	22.8
2011-12	1399185	-0.01	270091.8	15.6
2012-13	1500768	7.2	299212.5	10.7
2013-14	1518160	1.1	333231.9	11.3
2014-15	1516892	-0.08	361311.8	8.4
2015-16	1522346	0.3	387155.3	7.1
2016-17	1535610	0.8	476108	22.9
2017-18	1541445	0.3	549310	15.3
2018-19	1556567	0.9	874026	59.1

Source: Selected Educational Statistics, World Bank, IMF & Economic Survey, Various Years.

Government Expenditure on Education in India (GEEI) also increased tremendously during the same period. It was Rs.81280.85 crores in 2004-05 and increased to Rs.874026.0 crores in 2018-19. The percentage change also shows that government expenditure on education increase at a rate of 16.2 per cent to 59.1 percent during the same period. Thus it clearly reflects the importance government has given to the expenditure on education. All these determinants increased during the same period tend to increase the dependent variable, i.e. household expenditure on education. The present study also make use of two sets of regression equations, linear and logarithmic, estimated to identify the causal relationship between household expenditure on education and the selected independent variables in India.

Simple and multiple regression results are used to identify the relationship between selected variables. The estimated results of linear regression equations are presented in Tables 5.20 (a) and 5.20 (b). The regression result shows that there exist marginal positive associations between average household expenditure on education in India and the independent variables. The household expenditure on education is positively related to gross domestic product, per capita income, total number of schools and government expenditure on education in India.

Table 5.20 (a)

Regression Results on the Determinants of Household Expenditure on Education in India

No	Dependent variable	Intercept	Independent variables				R ²	Adj R ²	F- ratio
		(Constant)	GDPI	PCI	TNSI	GEEI			
1	HEEI	-211192.29 (-6.0866)	0.039 -10.6655				0.8974	0.8895	113.7538
2	HEEI	4273.6569 -0.1787				0.4643 -7.0986	0.7949	0.7791	50.3908
3	HEEI	-223322.4 (-3.2944)	0.0414 -3.4762			-0.0318 (-0.2112)	0.8978	0.8807	52.7194
4	HEEI	-327328.57 (-6.5128)		7.1753 -9.6019			0.8764	0.8669	92.1977
5	HEEI	-940652.51 (-5.8093)			0.7683 -6.7286		0.7769	0.7597	45.2751
6	HEEI	-260741.9 (-1.1567)	0.0385 -1.8819		0.0419 -0.1748	-0.0181 (-0.1035)	0.8981	0.8703	32.3171

Note: Figures in parentheses indicates t- Statistic value
Source: Computed from the values of tables 5.18.

The regression coefficients show that there is a positive relationship between dependent and independent variables. If the government expenditure on education increases household expenditure on education also increases.

Table 5.20(b)
Regression Results on the Determinants of Household Expenditure on Education
- Logarithmic Equations – in India

No	Dependent variable	Intercept (Constant)	Independent Variables				R ²	Adj R ²	F-ratio
			GDPI	PCI	TNSI	GEEI			
1	HEEI	-36.4452 (-5.9254)	2.9991 -7.796				0.8237	0.8102	60.779
2	HEEI	-4.1484 (-1.9413)				1.2616 -7.3328	0.8053	0.7903	53.7706
3	HEEI	-37.6109 (-1.2591)	3.1085 -1.123			-0.047 (-0.0399)	0.8238	0.7944	28.0563
4	HEEI	-32.846 (-5.2670)		4.0049 -7.112			0.7955	0.7798	50.5816
5	HEEI	-119.8448 (-5.9899)			9.2775 -6.5647		0.7682	0.7504	43.0962
6	HEEI	-55.0157 (-0.9044)	2.942 -1.0076		1.5256 -0.3327	-0.1705 (-0.1333)	0.8255	0.778	17.355

Note: Figures in parentheses indicates t-Statistic value

Source: Computed from the values of tables 5.18.

The increase in GDP, total number of schools and per capita income also influence household decision to spend more on their child’s education. The positive relationship and complementarity are also reflected through the highest values for R² and adjusted R² and F ratio. The coefficient values are high and different with respect to all independent variables. Simple and multiple regression results on logarithmic equations in India are seen in the Table 5.20 (b).

There is a positive and statistically significant relationship between household expenditure on education and the determinants or independent variables. The results of linear logarithmic regression equations confirm the positive influence of independent variables on the household expenditure on education in India. The results are also in confirmation with regression results. The values also reveal the importance of government expenditure on education in India as it is a complimentary to household expenditure on education. The per capita income also affects household expenditure on education (Anindita, et.al, 2006). The logarithmic regression results thus show the significant relationship of determinants or independent variables on household expenditure on education in India.

5.11. Household Expenditure on School Education in Kerala

Kerala has the highest human development index in India. The socio, educational and human development indices of Kerala are comparable even with the developed countries of the world. Besides this, the priority of households on children’s education is the highest in Kerala when compared to other states in India. Kerala's unique development experience of high human development with low per

capita income has received international attention. The State attained significant achievements in the critical sectors of health and education. Kerala's tremendous achievements in human development indicators are mainly attributed to the State's public interventions in health and education sectors.

Education played an important role in determining Kerala's performance in social development. The network of educational institutions established in the recent years, the social reform movements and government intervention helped the State to establish a strong foundation in the field of education. In the early 1990s, Kerala became the first ever state in the Indian union to attain universal literacy. Therefore, it is important to identify the determinants of household expenditure on education in Kerala.

5.12. Determinants of Expenditure on Education in Kerala

The all-India results will provide an insight into the Kerala level analysis to find out the determinants of education in Kerala. The private household expenditure on education is significant in Kerala. The level of expenditure may be high at higher levels of education in the state. There are so many determining factors of government expenditure on education in Kerala (Table 5.21). Thus there is a need to find out a large set of state level macro-economic variables such as gross state domestic product of Kerala, per capita government expenditure on education, per capita income of Kerala, total number of schools in Kerala and the amount of total remittances to Kerala to identify the determinants of government expenditure on education in Kerala. The possible relationship with government expenditure on education and these independent variables, growth rate of variables and regression results are explained in the present section. The determinants of household expenditure on education in Kerala are thus analyzed with the help of these independent variables.

Table 5.21

Macro- economic Variables Determining Government Expenditure on Education in Kerala

Sl No	Notation of variables	Variables
1	GEEK (Dependent variable)	Government Expenditure on Education in Kerala
2	GSDPK (Independent variable)	Gross State Domestic Product of Kerala
3	PGSDPK(Independent variable)	Per Capita Gross State Domestic Product of Kerala
4	PCIK (Independent variable)	Per capita Income of Kerala
5	TNSK(Independent variable)	Total Number of Schools in Kerala
6	TRK(Independent Variable)	Total Remittance to Kerala

Source: Prepared by the Investigator

To measure the level of economic development of Kerala, the variables such as Gross State Domestic Product of Kerala (GSDPK) and Per Capita Income of Kerala (PCIK) are used. The macro-economic variables determining government expenditure on education in Kerala are given in the Table 5.21. Government Expenditure on Education in Kerala (GEEK) is selected as the dependent variable in the study due to the non-availability of time series data of household expenditure on education in Kerala. Gross State Domestic Product of Kerala (GSDPK), Per Capita Gross State Domestic Product of Kerala (PGSDPK), Per capita Income of Kerala (PCIK), Total Number of Schools in Kerala (TNSK) and Total Remittance to Kerala (TRK) are the selected independent variables or determinants of Government Expenditure on education in Kerala.

All these variables tend to play a positive and important role in influencing the increase in the government's expenditure on education. It is also expected to be true that, higher the level of economic development of a state, higher may be the level of the household expenditure on education. Secondly, government expenditure on education may have a positive effect on household expenditure on education in Kerala. To measure the level of economic development of Kerala, the variables such as Gross State Domestic Product of Kerala (GSDPK) and Per Capita Income of Kerala (PCIK) are used. The macro-economic variables determining Government Expenditure on education in Kerala are given in the Table 5.21. Government Expenditure on Education in Kerala (GEEK) is selected as the dependent variable in the study due to the non-availability of time series data regarding household expenditure on education in Kerala. Government Expenditure on Education in Kerala (GEEK) from 2004-05 to 2018-19 is shown in the Table 5.22. It is increased from Rs.3207.56 crores to Rs.19441 crores during the same period. The percentage change in the government expenditure also shows that there was a steady and positive improvement and commendable progress towards the same highlighting the importance of government's positive role towards education expenditure in Kerala. So it is important to look into the determinants of government expenditure on education in Kerala.

Table 5.22**Government Expenditure on Education in Kerala (GEEK) over Various Years**

Year	(GEEK)	Percentage change
2004-05	3207.56	0.0
2005-06	3382.65	5.4
2006-07	3838.82	13.4
2007-08	4434.50	15.5
2008-09	5293.67	19.3
2009-10	6143.85	16.0
2010-11	6648.29	8.2
2011-12	9323.0	40.2
2012-13	10316.0	10.6
2013-14	11420.33	10.7
2014-15	12300.42	7.7
2015-16	14712.0	19.6
2016-17	16926.0	15.0
2017-18	19043.0	1.2
2018-19	19441.0	2.0

Source: Economic Review and Kerala Budget Documents, Various Years

Thus it is clear from the Table 6.7 that government expenditure on education from the year 2004-05 increased considerably. At present it is important to look into the independent variables or determinants of government expenditure on education in Kerala. The determinants of Government Expenditure on Education in Kerala are given in the Table 5.23 (a). Gross State Domestic Product of Kerala (GSDPK), Per Capita Gross State Domestic Product of Kerala (PGSDPK), Per capita Income of Kerala (PCIK), Total Number of Schools in Kerala (TNSK) and Total Remittance to Kerala (TRK) are the determinants. Gross State Domestic Product of Kerala (GSDPK) increased from Rs.216054.43crores in 2004-05 to 772894.00 in 2018-19. The percentage change also shows that the GSDP in Kerala is much improved in 2018-19, i.e. 48.4 per cent. The PGDSK is also increased from Rs.66710 crores in 2004-05 to 161374 crores in 2018-19. But the changes undergone were at a slow rate compared to the increase in GSDPK clearly depicted by the percentage changes in per capita gross state domestic product. The per capita income of Kerala also improved and increased at a steady rate during the same period, it was Rs.29071 crores in 2004-05 and Rs.225484 crores in 2018-19.

Table 5.23(a)
Determinants of Household Expenditure on Education in Kerala

Year	Gross State Domestic Product of Kerala (GSDPK)		Per Capita Gross State Domestic Product of Kerala (PGSDPK)	
	Amount (in Rs crores)	Percentage change	Amount (in Rs crores)	Percentage change
2004-05	216054.43	0.0	66710	
2005-06	237847.42	10.0	73089	0.0
2006-07	256638.35	7.9	78486	9.5
2007-08	279148.83	8.7	84960	7.3
2008-09	294667.63	5.5	89251	8.2
2009-10	321681.95	9.1	96961	5.0
2010-11	343926.81	6.9	103163	8.6
2011-12	364047.89	5.8	108666	6.3
2012-13	387693.46	6.4	115158	5.3
2013-14	402781.33	3.8	119105	5.9
2014-15	419955.55	4.2	123573	3.4
2015-16	451210.02	7.4	132116	3.7
2016-17	485301.54	7.5	141396	6.9
2017-18	520578.51	7.2	150922	7.0
2018-19	772894.00	48.4	161374	6.7

Source: Kerala Budget Analysis, Selected Educational Statistics, MoSPI & Kerala Economic Review

Total Number of Schools in Kerala (TNSK) and Total Remittance to Kerala (TRK) are regarded as the important determinants of government expenditure on education in Kerala. The Total Number of Schools in Kerala (TNSK) increased from 12322 in 2004-05 to 12961 in 2018-19 (Table 5.23 (b)). In some years, i.e. in 2006-07, 2017-18 and 2018-19 there was a negative change in the number of schools in India. Total remittances to Kerala are an important determinant of government expenditure on education in Kerala. It increased from Rs 28975.96 crores in 2004-05 to Rs 97712.13 crores in 2018-19. But remittances also showed negative changes in the years 2006-07, 2008-09 and 2013-14. Remittances to Kerala also increased tremendously in the years 2005-06, 2007-08, 2011-12, 2016-17 and 2018-19. It is clear that Kerala economy benefitted largely from the remittances. It had profound influence in increasing the GDP, per capita income and overall growth rate of the economy. That is why the total remittances to Kerala are regarded as an important determining factor of government expenditure on education in Kerala (Table 5.23(c)). It is positively related with the expenditure on education in Kerala, whether it is household or public.

Thus it is important to analyze the simple and multiple regressions to find out the impact of these independent variables on the dependent variables. Simple and

Multiple Regression Results in Kerala are given in the Table 5.24(a). The government expenditure on education in Kerala is positively related to gross state domestic product, per capita gross state domestic product, per capita income, total number of schools and total remittances to Kerala. The regression coefficients show that there is a positive relationship between dependent and independent variables. If the gross state domestic product increases government expenditure on education also increases. The increase in per capita gross state domestic product, total number of schools, per capita income and total remittances to Kerala also influence government decision to spend more on education.

Table 5.23 (b)

Determinants of Household Expenditure on Education in Kerala

Year	Per capita Income of Kerala (PCIK)		Total Number of Schools in Kerala (TNSK)	
	Amount (in Rs crores)	Percentage change	Amount (in Rs crores)	Percentage change
2004-05	28975.96	0.0	12322	0.0
2005-06	35498.95	22.5	12650	2.6
2006-07	34899.71	-1.6	12644	-0.04
2007-08	54097.72	55.0	12646	0.01
2008-09	47191.53	-12.7	12649	0.02
2009-10	47997.37	1.7	12649	0.0
2010-11	53156.86	10.7	12652	0.02
2011-12	64090.0	20.5	12657	0.03
2012-13	66283.44	3.4	12692	0.2
2013-14	58355.56	-11.9	12712	0.1
2014-15	58850.75	0.8	12768	0.4
2015-16	63053.78	7.1	12882	0.8
2016-17	76247.31	20.9	12981	0.7
2017-18	80227.87	5.2	12971	-0.07
2018-19	97712.13	21.7	12961	-0.07

Source: Kerala Budget Analysis, Selected Educational Statistics, MoSPI & Kerala Economic Review

The positive relationship and complementarity are also reflected through the highest values for R^2 and adjusted R^2 . The F ratio is also high reflecting the high association and relationship between variables. Simple and multiple regression results of the determinants of school education in Kerala is shown in the table 5.24 (b). There is a positive relationship between government expenditure on education and the

determinants or independent variables. The values also reveal the importance of Gross State Domestic Product, Per-Capita Gross State Domestic Product, Per-capita Income, Total Number of Schools and Total Remittances to Kerala as it is a complimentary to government expenditure on education in Kerala. Thus the determinants of government expenditure on education in Kerala were analyzed with the help of selected independent variables and found out that these variables play an important role in determining the government expenditure on education in Kerala. At the same time it is important to determine or analyze the financial impact of expenditure on education in Kerala.

Table 5.23 (c)
Determinants of Household Expenditure on Education in Kerala

Year	Total Remittances to Kerala (TRK)	
	Amount in Rs crores	Percentage change
2004-05	29071	0.0
2005-06	36958	27.1
2006-07	41318	11.7
2007-08	46865	13.4
2008-09	54560	16.4
2009-10	62114	13.8
2010-11	69943	0.13
2011-12	97912	39.9
2012-13	110314	12.6
2013-14	123388	11.8
2014-15	135537	9.8
2015-16	148011	9.2
2016-17	163475	10.4
2017-18	184000	12.5
2018-19	225484	22.5

Source: Kerala Budget Analysis, Kerala Economic Review, various years

There are some structural differences between Indian and Kerala economy; it will be helpful to get a comparative picture of the country and state level situations with respect to the determinants of expenditure on education.

Table 5.24 (a)
Simple and Multiple Regression Results – Kerala

No	Dependent Variable	Intercept (Constant)	Independent Variables					R ²	Adj R ²	F-ratio
			GSDPK	PGDSPK	PCIK	TNSK	TRK			
1	GEEK	-4530.1208 (-2.5105)	0.03725 (-8.4027)					0.8445	0.8325	70.6065
2	GEEK	-6160.6685 (-3.0669)	0.0187 (-1.4909)				0.1508 (-1.5551)	0.8705	0.849	40.365
3	GEEK	-6829.4704 (-3.3346)					0.2871 (8.4709)	0.8466	0.8348	71.7572
4	GEEK	-4199.1721 (-1.4418)		0.0714 (-1.5267)	0.06006 (-2.6827)			0.9828	0.98	344.2201
5	GEEK	-365352.47 (-6.7360)				29.4845 (-6.9166)		0.7863	0.7698	47.8395

Note: Figures in parentheses indicates t-Statistic value
Source: Computed from the values of tables 5.22 and 5.23.

In India, household expenditure on education is determined by a number of independent variables or determinants such as GDPI, PCII, TNSI and GEEI. A change or increase in all these variables affects positively the household expenditure on education in India. The comparison of the determinants of expenditure on education also implies the fact that there are some forces or factors which increase the expenditure on education.

From the study it is clear that these variables are different for India and Kerala. In Kerala, the factors or variables are different than India. In the study instead of household expenditure on education, Government Expenditure on Education (GEEK) is taken as the dependent variable and it is determined by a number of independent variables or determinants such as Gross State Domestic Product of Kerala (GSDPK), Per-Capita Gross State Domestic Product of Kerala (PGSDPK), Per-capita Income of Kerala (PCIK), Total Number of Schools in Kerala (TNSK) and Total Remittances to Kerala (TRK).

Table 5.24 (b)
Simple and Multiple Regression Results on Logarithmic Equations – Kerala

No	Dependent Variable	Intercept (Constant)	Independent Variables				R ²	Adj	F-ratio
			GSDPK	PGSDPK	TNSK	TRK		R ²	
1	GEEK	-14.0758 (-6.9693)	1.8032 (-11.4342)				0.9095	0.9026	130.7418
2	GEEK	-13.6382 (-6.5575)	1.3797 (-2.908)			0.4565 (-0.9467)	0.9158	0.9018	65.2979
3	GEEK	-10.4038 (-4.7192)				1.7785 (-8.81)	0.8565	0.8455	77.6166
4	GEEK	-5.0576 (-1.3122)		0.4287 (-0.7658)	0.8021 (-3.4312)		0.9913	0.9898	684.7077
5	GEEK	-372.3151 (-5.9665)				40.3474 (-6.1109)	0.7417	0.7219	37.3431

Note: Figures in parentheses indicates t-Statistic value
Source: Computed from the values of tables 5.22 and 5.23.

It is clear from both level of analysis that Gross domestic product, per capita income and total numbers of schools are the common determinants of both India and Kerala economy. In Kerala, remittances play an important role because of the large dependence of population of Kerala for foreign remittances especially for education purposes. This is also well reflected in the expenditure on education in Kerala.

5.13. Determinants of Expenditure on Education in India and Kerala

There are some structural differences between Indian and Kerala economy. It will be helpful to get a comparative picture of the country and state level situations with respect to the determinants of expenditure on education. In India, household expenditure on education is determined by a number of independent variables or determinants such as GDPI, PCII, TNSI and GEEI. A change or increase in all these variables affects positively the household expenditure on education in India. The comparison of the determinants of expenditure on education also implies the fact that there are some forces or factors which increase the expenditure on education. From the study it is clear that these variables are different for India and Kerala. In Kerala, the factors or variables are different than India. In the study instead of household expenditure on education, Government Expenditure on Education (GEEK) is taken as the dependent variable and it is determined by a number of independent variables or determinants such as Gross State Domestic Product of Kerala (GSDPK), Per Capita Gross State Domestic Product of Kerala (PGSDPK), Per capita Income of Kerala (PCIK), Total Number of Schools in Kerala (TNSK) and Total Remittances to Kerala (TRK). It is clear from both level of analysis that Gross domestic product, per capita income and total numbers of schools are the common determinants of both India and Kerala economy.

Expenditure on School Education In Thrissur District: A Survey Based Analysis

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6.1. Introduction

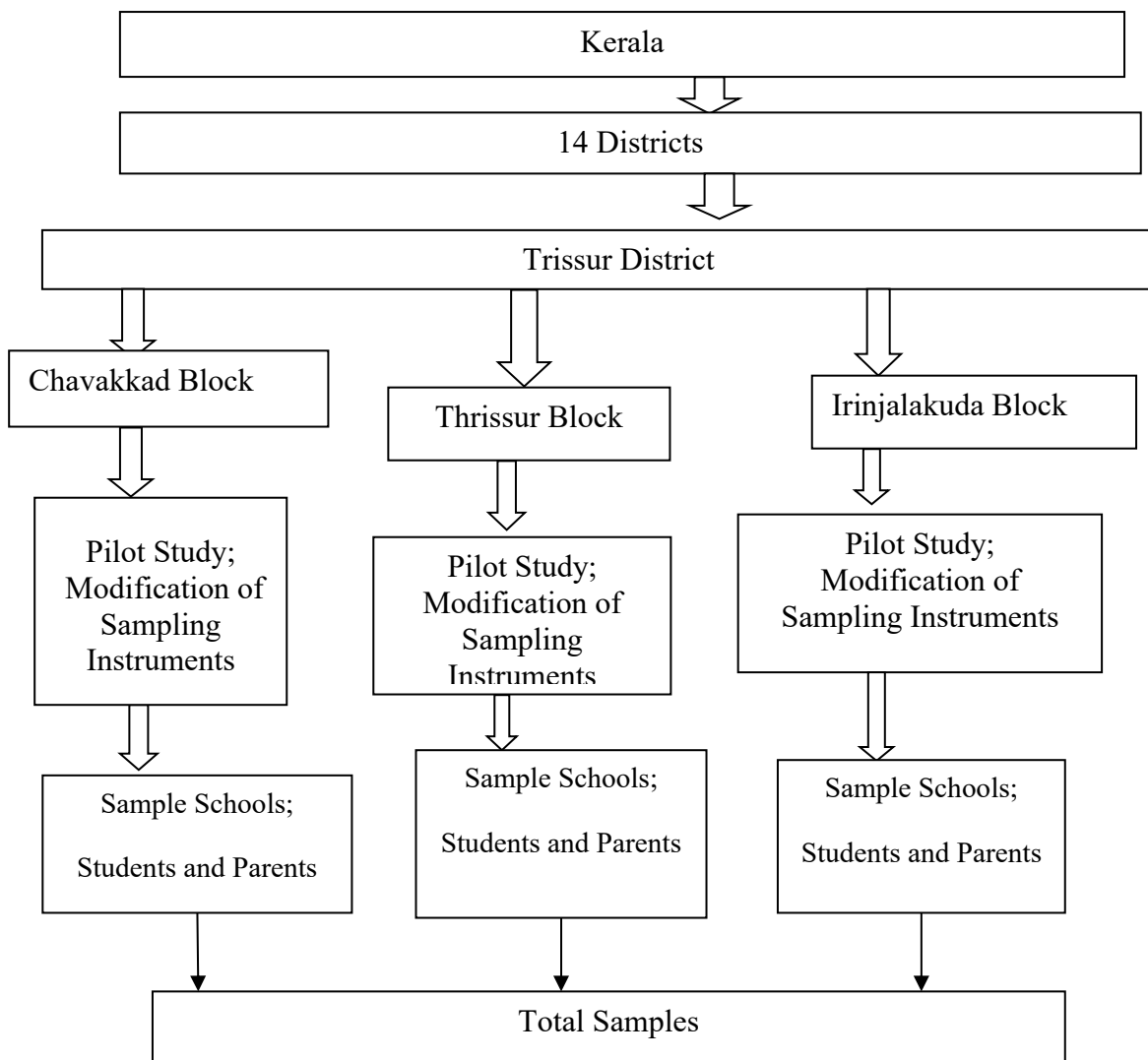
School education is the basic foundation of a student's learning process. Right from the time when a child starts his or her academics, the dilemma of choosing the good quality education becomes the primary concern of parents. The present study of school education is expected to touch each and every aspect of society. The study directly and indirectly benefits the society, students, policy makers, higher education sector, employment sector, household sector and teaching community. The present study is an attempt to look into the various facets of school educational scenario in

Kerala from the economic perspective by confining the study into households and students as the major stakeholders of school education.

6.2. Sampling Framework

The sampling framework of the present study to identify the samples is presented in chart 6.1.

Chart 6.1
Sampling Frame Work



Source: Prepared by the Investigator

To examine the school educational scenario in Kerala data is collected from one district. Thrissur district is selected for the study. Thrissur district is selected for the study due to several reasons such as geographical location of the district. In terms of education and school education it made so many progress and known as the centre of modern education hub. The primary data is collected from the time period of June 2020 to December 2020 in Thrissur district. There are three educational sub-districts in Thrissur district, Thrissur, Irinjalakuda and Chavakkad. There are total 956 high schools and higher secondary schools in Thrissur district, viz. 249 from Thrissur sub district, 309 from Irinjalakuda and 398 from Chavakkad. As the first step in data collection a pilot survey has conducted. From the pilot survey sampling instruments were revised. Further, modification of the sample instruments has been executed. From these sub-districts data are collected randomly by school visits and the details of parents and teachers were collected. The data is collected by using pre-tested interview schedules and focus group discussions (FGD). A multi-stage random sampling method has been used for collecting data from parents and students (chart 6.1)

Brief informal conversations with teachers, school principals, managers and experts in the field were also made. From schools the list of students and parents were collected. The statistical tools such as mean, standard deviation, one sample t test, independent t test, ANOVA, quartile deviation, cross tabulation and chi-square tests has been used to analyze the data.

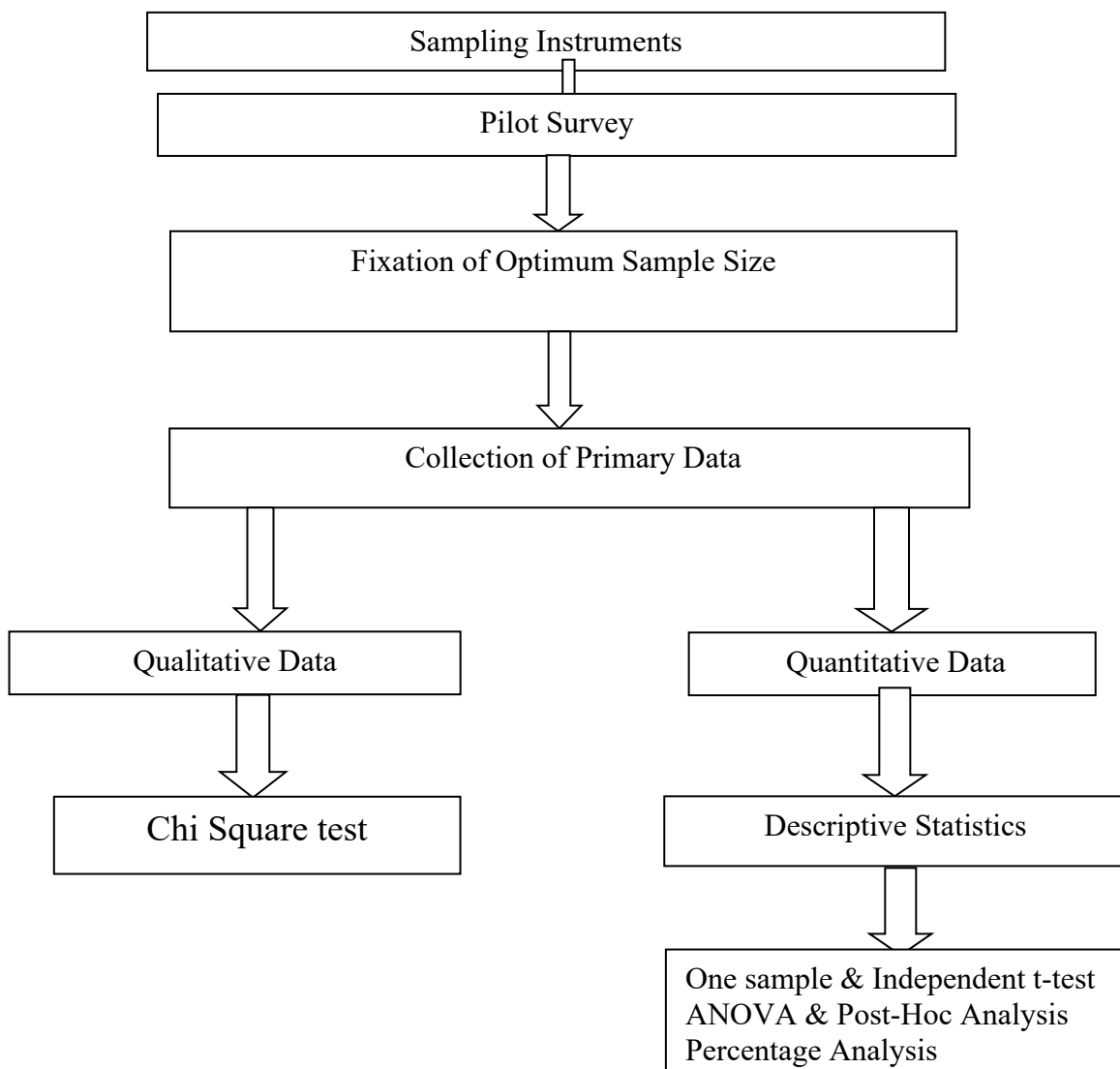
6.3. Analytical Framework

The analytical framework of the present study is presented in chart 6.2. Firstly, sampling instruments were framed and after that a pilot study is conducted to examine the feasibility and reliability of the study. It is also used to test the research tools including questions and survey structure. After conducting pilot survey, fixation of optimum sample size is done. Two types of data like qualitative and quantitative data are used in the study. As a part of qualitative data, Chi-square test is used. Quantitative tools like ANOVA and Post Hoc test, one sample t-test and Independent t-test were used (chart 6.2).

The study makes use of various statistical tools and techniques for analysis. There are three types of statistics used in the present study. The tools are descriptive statistics, inferential statistics and predictive statistics. As a part of descriptive

statistics, tools such as mean, standard deviation, percentage analysis and quartile deviation are used. The inferential statistics used in the study are one sample t-test, independent t-test, Analysis of Variance (ANOVA) with Turkey's Post Hoc Analysis, Level-Test and Chi square test. The study also makes use of predictive analysis by using Covariance Based Confirmatory Factor Analysis CB-CFA and Structural Equation Modeling (SEM) Techniques. The software packages used are IBM SPSS-Statistical Packages for Social Sciences 21 and IBM SPSS Analysis of Moments Structures (AMOS) 21.

Chart 6.2
Analytical Framework



Source: Prepared by the Investigator

As the study analyses school educational scenario in Kerala, the socio-demographic characteristic of students and parents are analyzed with the help of percentage analysis and frequency analysis. The various aspects like household expenditure on education, it's financing, students' perception on school environment, home environment and their engagement in learning is analyzed. Parental aspects on school education like their care and support, perception on free and compulsory education and all promotion policy is also analyzed.

The quality aspects of school education and problems of school education and the perception of students on their satisfaction about school environment and parental satisfaction and school quality and its various aspects are analyzed. The problems of school education from the perspective of parents and the effect of home environment and school environment on student satisfaction and student learning are also the analytical part of the study.

6.4. Socio-Demographic Profile of Parents

The age group of parents participated in the survey is shown in the Table 6.1.

Table 6.1
Age of Parents in Thrissur District (2020)

Age	Frequency	Percentage
31-40 years	95	31.7
41-50 years	176	58.7
51 and above	29	9.7
Total	300	100

Source: Primary Data

The socio-demographic profile of parents such as their age, religion, caste, educational qualification, type of school and standard in which their child is studying, area or location in which they live, occupation, number of earning members and possession of private property.

Table 6.2
Religion of Parents in Thrissur District (2020)

Religion	Frequency	Percentage
Hindu	140	46.7
Christian	55	18.3
Muslim	104	34.7
Others	1	0.3
Total	300	100

Source: Primary Data

From the Table 6.1, it is evident that 31.7 per cent of parents belong to the age group of 31-40 years, 58.7 per cent parents are 41-50 years of age and only 9.7 per

cent of the parents fall under 51 and above age group. Majority of the parents come under 41-50 years age group i.e. 58.7 per cent, followed by 31-40 years age group, i.e.31.7%. The religion wise classification of parents is shown in the Table 6.2 and it is seen that 46.7 per cent of parents are Hindus, 18.3 per cent are Christians, 34.7 per cent Muslims and 0.3% others. Majority of the parents are Hindus, i.e. 46.7 per cent followed by Muslims, i.e. 34.7 per cent and only 0.3% constitutes other categories.

The Table 6.3 shows the caste wise classification of parents participated in the survey. 17.3 per cent are OEC, 64 per cent are OBC, 8 per cent are SC, 0.3 per cent are ST and 10.3 per cent are other categories.

Table 6.3
Caste of Parents in Thrissur District (2020)

Caste	Frequency	Percentage
OEC	52	17.3
OBC	192	64
SC	24	8
ST	1	0.3
Others	31	10.3
Total	300	100

Source: Primary Data

Majority of the parents, i.e. 64 per cent are OBC and 17.3 per cent are OEC category. Only a few, 0.3% comes under ST category. Educational qualification of father and mother is shown in the Table 6.4.

Table 6.4
Educational Qualification of Father and Mother in Thrissur District (2020)

Educational Qualification	Father		Mother	
	Frequency	Percentage	Frequency	Percentage
Below SSLC	43	14.3	31	10.3
SSLC	72	24	46	15.3
Plus Two	35	11.7	58	19.3
Graduation	70	23.3	90	30
Post-Graduation	46	15.3	58	19.3
Professional	25	8.3	16	5.3
Others	9	3	1	0.3
Total	300	100	300	100

Source: Primary Data

Regarding the qualification of fathers, 14.3 per cent are educated below SSLC level, 24 per cent studied up to SSLC, 11.7 per cent studied up to plus two levels, 23.3 per cent are graduates, 15.3 are post graduates, 8.3 are professionals and only 3 per cent comes under other categories. The educational qualification of mother reveals the idea that 10.3 per cent of the mothers are educated below SSLC level, 15.3 per cent

are studied up to two SSLC level, 19.3 per cent are studied up to plus two level, 30 per cent are graduates, 19.3 are post graduates, 5.3 per cent are professionals and only 0.3% forms other categories. The majority of the household women is graduates, i.e. 30 per cent, followed by plus-two and posts -graduation, i.e. 19.3 per cent, then SSLC, i.e.15.3 per cent and below SSLC, i.e. 10.3 per cent of the total respondents. The comparison shows that mothers are better educated than fathers.

Table 6.5
Type of School Child is Studying in Thrissur District (2020)

Type of school	Frequency	Percentage
Government	108	36
Aided	116	38.7
Unaided	8	2.7
CBSE	61	20.3
ICSE	6	2
Others	1	0.3
Total	300	100

Source: Primary Data

The percentage of mothers below SSLC is lower than that of fathers. Regarding plus two level education, percentage of mothers outstand fathers. The trend is also towards more graduates and post graduates in favor of mothers. The number of professionals is low in both cases but there is a slight increase in the case of father's educational qualification.

Table 6.6
Standard in which Child is Studying in Thrissur District (2020)

Standard	Frequency	Percentage
9 th	105	35
10 th	103	34.3
Plus one	8	2.7
Plus two	84	28
Total	300	100

Source: Primary Data

The type of school the child is studying is shown in the Table 6.5 and it is seen that 36 per cent of children are studying in government schools, 38.7 per cent in aided schools, 2.7 per cent in unaided schools, 20.3 per cent in CBSE schools, 2 per cent in ICSE schools and only 0.3 per cent in other type of schools. It is evident that majority of parents send their children to aided schools, i.e. 38.7 per cent and next to government schools, i.e. 36 per cent, followed by CBSE, i.e. 20.3 percent and insignificant proportion to other schools. The class or the standard of the child is studying is shown in the Table 6.6. It is evident that 35 per cent of the children are studying in 9th standard, 34.3 per cent studying in 10th standard, 2.7 per cent studying

in plus one and 28 per cent are studying in plus two. Majority of the students are studying in 9th standard, i.e. 35% and 10th standard, i.e. 34.3% and 28% of the students fall under the category of plus two students. Only 2.7% are studying in plus one. The area or location in which the parents live is shown in the Table 6.7 and is seen that 57.3 per cent of the parents, majority of the respondents, live in rural areas and 42.7 per cent lives in urban areas. Occupation of fathers participated in the survey is shown in the Table 6.8.

Table 6.7
Area/ Location of Parents in Thrissur District (2020)

Are/ Location	Frequency	Percentage
Rural	172	57.3
Urban	128	42.7
Total	300	100

Source: Primary Data

It is seen that 7 per cent of the respondents are professionals, 20 per cent are daily wage earners, 19.7 per cent are government employees, 13.7 per cent are private employees, 21.3 per cent are doing business and 18.3 per cent are engaged in other occupations.

Table 6.8
Occupation of Father in Thrissur District (2020)

Occupation of Father	Frequency	Percentage
Professional	21	7
Daily wage earner	60	20
Govt Employee	59	19.7
Private Employee	41	13.7
Business	64	21.3
Others	55	18.3
Total	300	100

Source: Primary Data

It is evident that occupation of the father shows a mixed picture and the majority doing business, 21.3 per cent, followed by government employees, i.e. 19.7 per cent, 18.3 per cent other occupations, 13.7 per cent private employees and the least proportion, i.e. only 7 per cent are professionals. Occupation pattern of mothers is shown in the Table 6.9. It is seen that 2.3 per cent of mothers are professionals, 4 per cent are daily wage earners, 27.7 per cent are government employees, 4.3 per cent private employees, 1 per cent is doing business and 3 per cent are doing other jobs. Majority of the mothers, more than half of the total respondents, i.e. 57.7% are housewives followed by 27.7% government employees and the least proportion to other jobs.

Thus when we compare the occupation pattern of father and mother it is well clear that fathers are more engaged in work to support their families. In the case of professional, daily wage earner, private employees, business and other jobs male are engaged more than their female counterparts. This also shows occupational discrimination between them and also one interesting thing about this is that more women are engaged in government jobs than men showing their academic excellence and at the same time when confined to families they stay at home to look after their families.

Table 6.9
Occupation of Mother in Thrissur District (2020)

Occupation of Mother	Frequency	Percentage
Professional	7	2.3
Daily wage earner	12	4
Govt Employee	83	27.7
Private Employee	13	4.3
Business	3	1
Others	9	3
House wife	173	57.7
Total	300	100

Source: Primary Data

Earning members in the family is shown in the Table 6.10. Among parents, 56.7 per cent revealed that there is only one earning member in their family. Among respondents, 40.3 per cent responded it as two and only few, 3 per cent recorded their response as more than two.

Table 6.10
Earning Members in Family in Thrissur District (2020)

Earning Members	Frequency	Percentage
One	170	56.7%
Two	121	40.3%
More than two	9	3%
Total	300	100%

Source: Primary Data

It is shown that more than half of the families participated in the survey, i.e. 56.7% depends for only one source of income for their livelihood and 40.3% revealed that there are two earning members and only 3% revealed that there are more than two earning members in their family.

Table 6.11
Private Property of Parents in Thrissur District (2020)

Private Property	Frequency	Percentage
Yes	133	44.3%
No	167	55.7%
Total	300	100%

Source: Primary Data

The Table 6.11 shows the private property of the parents. Among parents 44.3 per cent of them revealed that they possess private property and the majority of them, i.e. 55.7 per cent responded that they do not possess any private property. Thus most of the parents do not have private property.

The total number of households is seen in the Table 6.12. It is seen that 11% of the respondents have 1-3 members in their family. The vast majority of the respondents, i.e. 86.3% have 4-6 members and only very few respondents, i.e. 2.7% have 7-9 members in their family. No respondents have more than 9 members or lives in a joint family system.

Table 6.12
Number of Family Members in Thrissur District (2020)

Number of Family members	Frequency	Percentage
1-3	33	11
4-6	259	86.3
7-9	8	2.7
More than 9	0	0
Total	300	100

Source: Primary Data

Thus it is seen that majority lives in a small family, i.e. nuclear family system and it seems that parents seldom live in joint family system.

6.4.1. Sources of Income of Parents

The source of income of the parents is given in the Table 6.13. The parents participated in the survey gave responses to more than one option to some questions.

Table 6.13
Income Sources of Parents in Thrissur District (2020)

Sources of Income	Income from the source (%)	Rank
Father's work	89.3	I
Mother's work	37.7	II
Other Sources	16.7	III
Assets	1.3	IV

Source: Primary Data

Note: Column wise addition may not equal to 100 due to frequency analysis.

Thus frequency analysis can also be used in the study to get some important information like the sources of income in the household survey.

Table 6.14
Selection of School by Parents in Thrissur District (2020)

Reason for selection of school	Reason	Rank
Good Quality of education	70.3	I
Good teachers	51.3	II
The school is nearest to my home	25.3	III
Good infrastructure	18.3	IV

Source: Primary Data

Note: Column wise addition may not equal to 100 due to frequency analysis.

The results show that 89.3 per cent of the respondents responded father's work as their main source of income, 37.7 per cent revealed that mothers' work is the source of income, 16.7 per cent responded it is from other sources and only 1.3 per cent revealed their income source as assets. Thus it is clear that major source of income is father's work followed by mother's work. The selection of school or the reasons for choosing the school of their children are shown in the Table 6.14 using frequency analysis. Majority of the parents, 70.3 per cent parents select schools on the ground of good quality of education it provides, 51.3 per cent select schools on the basis of good teachers, 25.3 per cent select schools as it is nearest to their home and 18.3 per cent select it on the basis of good infrastructure. Thus the results indicate that the major reason for selecting school is good quality of education and the least preference is given by parents to good infrastructure in the selection of school.

6.4.2. Purpose of Savings

People generally save for many important purposes in their life. Generally it is for meeting emergencies, for house construction, for retirement life, children's marriage, education and for other purposes (Tilak, 2000).

Table 6.15
Purpose of Savings of Parents in Thrissur District (2020)

Purpose of savings	Reason (%)	Rank
Children's education	67.3	I
For emergencies	64	II
Other purposes	46.3	III
Children's marriage	35.3	IV
For house construction/ renovation	26.7	V
For retirement life/old age	24.7	VI

Source: Primary Data

Note: Column wise addition may not equal to 100 due to frequency analysis.

Thus it is seen that majority of the parents save for the purpose of education of their child, showing the importance of education they give to their child and the least purpose is for retirement life and old age.

Table 6. 16
Financing for Education of Parents in Thrissur District (2020)

Financing for education	Sources (%)	Rank
Household income	82.3	I
Other sources	34.0	II
From loans	10.7	III
Selling/ pledging assets	3.7	IV
Friends/ relatives	3.3	V

Source: Primary Data

Note: Column wise addition may not equal to 100 due to frequency analysis.

From the Table 6.15, majority of the parents save for the purpose of children’s education, i.e. 67.3 per cent. After education parents gave importance to meet emergencies in their life, i.e. 64 per cent. The third ranking in the saving purpose is for other purposes, i.e. 46.3 per cent. The other items of savings are children’s marriage (35.3%), house construction/ renovation (26.7%) and for retirement life/old age (24.7%) respectively. The financing of education of the child may be from a wide number of factors. It is specified from the Table 6.16 that the major source of financing of education in families is through household income, i.e. 82.3 per cent. Parents also revealed that the major source of financing of their child is through other sources, 34 per cent, 10.7 per cent rely upon loans, 3.7 per cent through selling/ pledging assets and 3.3 per cent through friends/ relatives. Thus it is evident that the major source of financing for school education is household income and the least is children’s own contribution.

6.5. Household Budget and Expenditure on Education

Household budget and its importance in maintaining family’s income and expenditure are correlated substantially (Tilak, 2001).

Table 6.17

Annual Average Household Expenditure of Parents in Thrissur District in (2020)

Items of Expenditure	CBSE	Aided	State	Average Expenditure	Rank
Housing	40459	37087	34840	37462	I
Food items	22255	21168	20875	21433	II
Non-food items	16700	16255	16236	16397	III
Education	15576	10620	9203	11800	IV
Transport& Entertainment	7487	4658	4494	5546	V
Health& Medical needs	5593	5429	5428	5483	VI
Clothing & Footwear	5420	5430	4635	5162	VII

Source: Primary Data

The income and expenditure relationship among the household are established (Nik et.al, 2011) and the crucial variables related to education are household income and expenditure.

Table 6.18
Items of Expenditure of Parents on School Education in Thrissur District in 2020

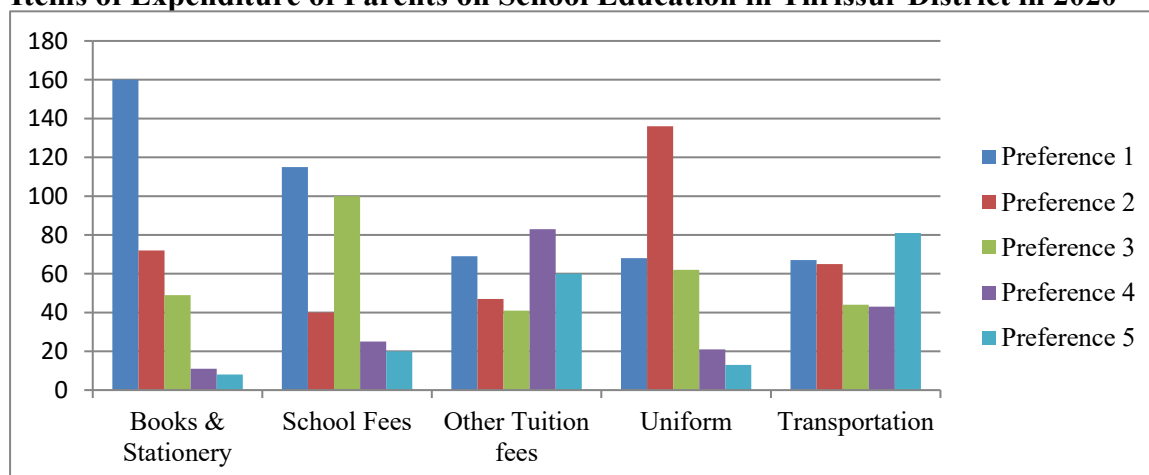
Itemsof Expenditure	Order of Preferences					Total	Rank
	1	2	3	4	5		
Books and Stationery	160 (53.33%)	72 (24%)	49 (16.33%)	11 (3.66%)	8 (2.66%)	300	I
School Fees	115 (38.33%)	40 (13.33%)	100 (33.33%)	25 (8.33%)	20 (6.66%)	300	II
Other tuition fees	69 (23%)	47 (15.66%)	41 (13.66%)	83 (27.66%)	60 (20%)	300	III
Uniform	68 (22.66%)	136 (45.33%)	62 (20.66%)	21 (7%)	13 (4.33%)	300	IV
Transportation	67 (22.33%)	65 (21.66%)	44 (14.66%)	43 (14.33%)	81 (27%)	300	V

Source: Primary Data

Note: Figures in Parentheses shows Percentages.

The present study found out that a significant and strong relationship exists between income and types of household expenditure from socio-economic perspectives. The second highest annual average expenditure of parents comes under the category of food items. Next to food items non-food items occupy the third position. Spending on education also occupies an important position as today’s parents are more interested in spending for their child’s education. Transport and entertainment occupy the fifth position followed by health and medical needs and expenses for clothing and footwear.

Figure 6.1
Items of Expenditure of Parents on School Education in Thrissur District in 2020



Source: Primary Data

The household budgets of parents were studied to understand how they are spending or giving importance to various items of expenditure. Parents' budget can be generally classified into food items and non-food items. It also includes expenditure on housing, health, transport and entertainment, education, clothing and footwear. A study on the annual-average household expenditure of parents shows that parents on an average spent most of their income on housing maintenance or housing related activities. This may be because of the fact that they are more inclined to the style and maintenance of their household finance (Dominick, et.al, 2018). Thus the average annual household expenditure of parents gives an account of the spending pattern of families and the top order priorities in which they spend. It also throws light into the trend and pattern of household budget. The annual average household expenditure of parents of students of various types of schools such as CBSE, aided and state level schools are shown in the Table 6.17. It is shown that the expenditure pattern of parents of CBSE schools is comparatively higher followed by aided and state level schools. But regarding all types of schools, parents incur more expenditure on housing followed by food items, non- food items, education, transport and entertainment, health and medical needs and clothing and footwear respectively.

There are different items of expenditure on school education like books and stationery, school fees, other tuition fees, uniform and transportation. These items of expenditure give a picture about the ways in which parents of aided and Government school children, high school and higher secondary students spend for their child's education. It is clear from the Table 6.18 that the higher order of preference among parents on the items of school education expenditure is for books and stationery. The first order preference of books and stationery items are high followed by the next order preferences respectively. School fees is the second most spent item on school education expenditure pointed out by parents in the order 1, 3 ,2 ,4 and 5 set of preferences. Next to school fees other fees related to school education comes in the order of preferences such as 1, 4, 5, 2 and 3. The fourth preferred item by parents on the items of expenditure is uniforms in the order of preferences 2, 1, 3, 4 and 5. The least spent is for transportation purposes, i.e.in the order of preferences such as 5, 1, 2, 3 and 4. The same order of preferences of expenditure of parents are seen in the fig 1 where the preferences are high in the order of books and stationery followed by school fees, other fees, uniforms and transportation respectively.

6.6. Socio-Demographic Profile of Students

The age of the students with respect to type of schools they are attending are presented in the Table 6.19. The rural-urban classification and school type classification is evident in the Table 6.19. Among 14-15 year students, 64 students are from government schools, 60 from aided schools and 40 from CBSE schools in rural areas. In urban areas the same age group constitutes 62 from Government, 51 from aided and 45 from CBSE schools respectively. In the case of 16-18 age groups of students, in rural areas it is 55, 38 and 49 respectively and in urban areas it is 51, 45 and 40 respectively. Majority of the students, i.e. 322 (53.66 per cent) among 600 students are 14-15 age group and 278 (46.33 per cent) constitutes 16-18 age group of students.

Table 6.19
Age of School Students in Thrissur District (2020)

Age	Rural			Frequency	Percentage
	Govt	Aided	CBSE		
14-15 years	64	60	40	164	27.33
16-18 Years	55	48	39	142	23.66
Urban					
14-15 years	62	51	45	158	26.33
16-18 years	51	45	40	136	22.66
Total	228	199	173	600	100

Source: Primary Data

The gender wise classification of the students is shown in the Table 6.20. The rural-urban classification and school type classification is also made in the study. Among boy students, 52 students are from Government schools, 54 from aided schools and 40 from CBSE schools in rural areas.

Table 6 20
Gender of School Students in Thrissur District (2020)

Gender	Rural			Frequency	Percentage
	Govt	Aided	CBSE		
Male	52	54	40	146	24.33
Female	64	60	42	166	27.66
Urban					
Male	54	48	36	138	23
Female	58	56	36	150	25
Total	228	218	154	600	100

Source: Primary Data

In urban areas the same group constitutes 54 from Government, 48 from aided and 36 from CBSE schools respectively. In the case of girl students, in rural areas it is 64, 60 and 42 respectively and in urban areas it is 58, 56 and 36 respectively. Majority

of the students are girls, 316 (52.7 per cent) among 600 students and 284 (47.3 per cent) constitutes 16-18 age group of students. Whether the students go for tuitions or not is seen in the Table 6.21. Among the students 24 per cent always going for tuitions, 9 per cent often attend it, 16.8 per cent sometimes attend it and 11 per cent very rarely attend the same. It is evident that majority of the respondents, have never gone for tuitions to improve their academic standards. This also shows the academic brilliance of students and they are comfortable and happy at their home environment. The selection of schools by the students in the Table 6.22 shows that 31 per cent of the students selected the school in which they are studying according to the interest of their parents.

Table 6.21
Preference to Go For Tuitions in Thrissur District (2020)

Going for Tuitions	Frequency	Percentage
Always	144	24
Often	54	9
Sometimes	101	16.8
Rarely	66	11
Never	235	39.2
Total	600	100

Source: Primary Data

The majority of the students in the survey selected it in their own interest. Only very few students, i.e. 7.8% responded that they selected the school due to other reasons.

Table 6.22
Selection of School in Thrissur District (2020)

Selection of School	Frequency	Percentage
Parent's interest	186	31
Your own interest	367	61.2
Other Reasons	47	7.8
Total	600	100

Source: Primary Data

Thus it is clear that the students have the personal freedom to select their schools as home environment is very much supportive for them to improve their educational standards. Among the total population it is found that 61.2 per cent select schools in their own interest, 31 per cent in parent's interest and only few, 7.8 per cent opined that they select school due to other reasons.

6.7. Students' Perception on Home Environment

The home environments in which the children live have a profound influence on their academic achievement; parents can provide a happy home environment for

the better educational outcome of their children (Kumar et.al, 2014). Student’s perception on home environment is compared based on gender. The hypothesis is formulated that that there are no significant differences based on gender of students regarding the factors of home environment. The significant difference between male and female students concerning the factors of their home environment are analysed with the help of independent t test (Table 6.23). The P value is less than 0.05 and the null hypothesis is rejected at 5 per cent level with regard to the factors of home environment such as parent’s role in education, happy home environment and tuition facility offered by the parents. It indicates that there are significant differences between male and female students regarding these factors of home environment. It is also seen that, related to the factor selection of school in the interest of child, the P value is greater than 0.05, so that the hypothesis is accepted. It indicates that there exist no significant differences among students on the basis of gender regarding this factor. Thus with the help of mean score, it is interpreted that parents of both male and female students have better role in the education of their students.

Table 6.23
Gender of students and the Factors of Home Environment in Thrissur (2020)

Factors of students perception on home environment	Gender of the students				T value	P Value
	Male		Female			
	Mean	SD	Mean	SD		
Parents role in education	4.68	0.56	4.78	0.49	-2.34	0.020*
Happy home environment	4.44	0.80	4.58	0.71	-2.29	0.022*
Tuition facility	2.85	1.64	2.51	1.58	2.52	0.012*
Selection of school in the interest of child	1.75	0.56	1.78	0.59	-0.59	0.553 ^{NS}

Source: Computed from Primary Data

Notes: Mean score and independent T Test

* denotes significant at 5% level

NS non-significant

Both categories of students are getting happiness from their home environment. But comparatively, parents of female students are more involved in their child’s education than parents of male students. Female students also get more happiness from their home environment than male students. It is also found that both male and female students do not get private tuition facility from their home. Male students are getting more tuition facility than female students. In the case of selection of school, the mean value is very low, indicates that parent’s do not have much role in the selection of school of their child. So from the home related factors of students, it is seen that parents play an important role in families in the school education of their child except selection of the school.

Based on mean score, it is observed that among males, most perceived home environment factor in school education is parents role in education (4.68) followed by happy home environment (4.44), tuition facility (2.85) and selection of school in the interest of child (1.75). It indicates that male students consider parents role in education as a major home environment factor in school education followed by happy home environment and tuition facility. In the case of female students, parents role in education (4.78) is the most considered home environment factor followed by happy home environment (4.58), tuition facility (2.51) and selection of school in the interest of child (1.78). It indicates that female students consider parents role in education as a major home environment factor in school education followed by happy home environment and tuition facility.

6.8. Students' Perception on School Environment

Student's perceptions on school environment are studied using mean test. The hypothesis is formulated that student's perception on school environment are equal to the average level. The P value is less than 0.01 for the factors of student's perception on school environment such as teacher's encouragement, need of individual attention and challenge of competition in studies and the null hypothesis is rejected at 1% significant level. It indicates that factors are not equal to the average level. It may be the higher or lower level than average level.

Table 6.24

Student's Perception on the Factors of School Environment in Thrissur (2020)

SI No	Student's perception on school environment	Mean	SD	MD	T value	P Value	Rank based on mean
1	Teacher's encouragement	4.48	0.83	1.48	43.70	<0.001**	I
2	Need of individual attention	4.13	0.88	1.13	31.36	<0.001**	II
3	Overload of homework and studies	3.05	1.14	0.05	1.14	0.254 ^{NS}	IV
4	Challenge of competition in studies	3.16	1.11	0.16	3.58	<0.001**	III
5	Problem of balancing school and home	2.92	1.16	-0.07	-1.51	0.132 ^{NS}	VI
6	Challenge of present examination system	3.00	1.11	0.00	0.10	0.913 ^{NS}	V

Source: Computed from Primary Data

Notes: Mean Score and one sample T Test

Test Value: 3; ** denotes significant at 1% level

NS denotes non-significance

Since the p value is greater than 0.05, null hypothesis is accepted for the factors, overload of homework and studies, problem of balancing school and home

and challenge of present examination system. It means these factors are equal to the average level (Table 6.24). The mean scores show that the factors, teacher’s encouragement, need of individual attention and challenge of competition in studies are higher than average level (>3 , 3 is the test value). The factors of student’s perception on school environment such as overload of homework and studies, problem of balancing school and home and challenge of present examination system are equal to average level ($=3$, 3 is the test value). The results of one sample t test indicate that students perceive schools play a better role in their education by providing encouragement by teachers, individual attention to students and providing healthy competition in studies. And students consider the factors of other school environment such as overload of homework and studies, problem of balancing school and home and challenge of present examination system at an average level. So, from the mean score and mean rank, it is inferred that teacher’s encouragement is the most influencing factor of the school related aspects. It is followed by need of individual attention, challenge of competition in studies, overload of homework and studies, challenge of present examination system and problem of balancing school and home. It shows that most students are getting encouragement from their teachers followed by the individual attention from school and the students are also part of the challenges of healthy competition in studies. Student’s perceptions on school environment are compared with respect to their gender. The hypothesis is formulated that that there is no significant difference between genders of students regarding the factors of their school environment.

Table 6.25

Gender of Students and the Factors of School Environment in Thrissur (2020)

Factors of students perception on school environment	Gender of the Students				T value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Teacher’s encouragement	4.39	0.89	4.57	0.76	-2.68	0.007**
Need of individual attention	4.03	0.87	4.22	0.89	-2.61	0.009**
Overload of homework and studies	3.12	1.14	2.98	1.13	1.49	0.136 ^{NS}
Challenge of competition in studies	3.25	1.09	3.08	1.12	1.80	0.071 ^{NS}
Problem of balancing school and home	2.97	1.15	2.88	1.17	0.86	0.385 ^{NS}
Challenge of present examination system	3.11	1.12	2.90	1.10	2.24	0.025*

Source: Computed from Primary Data

Notes: Mean score and independent T Test

** denotes significant at 1 % level, * denotes significant at 5% level

NS non-significant

From the Table 6.25 it is analyzed that the value is less than 0.01, the null hypothesis is rejected at 1% level for the factors of students' perception on school environment such as teacher's encouragement and need of individual attention. Therefore, there is significant difference between male and female students regarding their perception on the factors, teacher's encouragement and need of individual attention. Mean scores indicate that the perception of both male and female on above mentioned school environment factors are higher. More than male, female perceives that teacher encourages them to perform better and give more individual care. The null hypothesis is rejected at 5% level for the factor that challenge of present examination system, since the p value is less than 0.05. Therefore there is significant difference between male and female students regarding their perception on the factor challenge of present examination system. Mean score shows that both male and females are challenged with the present examination oriented system of education. Male students face the challenge more than females. The P value is greater than 0.05 and the null hypothesis is accepted for the factors of students' perception on school environment such as overload of homework and studies, challenge of competition in studies and problem of balancing school and home. It shows that there is no difference between the perception of male and female students regarding the above mentioned factors.

Table 6.26

Age of Students and the Factors of School Environment in Thrissur (2020)

Factors of school environment of the students	Age of the students				T value	P value
	14 to 15 Years		16 to 18 Years			
	Mean	SD	Mean	SD		
Teacher's encouragement	4.59	0.76	4.36	0.88	3.29	0.001**
Need of individual attention	4.18	0.85	4.08	0.92	1.33	0.183 ^{NS}
Overload of homework and studies	3.01	1.15	3.10	1.13	-0.94	0.346 ^{NS}
Challenge of competition in studies	3.27	1.10	3.03	1.11	2.61	0.009**
Problem of balancing school and home	2.92	1.15	2.93	1.16	-0.13	0.892 ^{NS}
Challenge of present examination system	2.93	1.10	3.08	1.13	-1.65	0.098 ^{NS}

Source: Computed from Primary Data.

Notes: Mean Score and T Test

** denotes significant at 1% level, NS denotes non- significant

Based on mean score, it is observed that in the factors of students' perception on school environment, male students are more influenced in the factor, teacher's encouragement (4.39) followed by need of individual attention (4.03), challenge of competition in studies (3.25), overload of homework and studies (3.12), challenge of present examination system (3.11) and problem of balancing school and home (2.97). In the case of female, teacher's encouragement (4.57) is the most influencing factor followed by need of individual attention (4.22), challenge of competition in studies (3.08), overload of homework and studies (2.98), challenge of present examination system (2.90) and problem of balancing school and home (2.88).

Student's perceptions on school environment are compared with respect to their age in Table 6.26. The hypothesis is that there is no significant difference between age group of students regarding the factors of their school environment. With the help of T test, significant difference between 14 to 15 and 16 to 18 age group of students regarding the factors of their school environment is analysed. It is estimated that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level with regard to the factors of school environment of students such as teacher's encouragement and challenge of competition in studies. It indicates that there are significant differences between 14 to 15 and 16 to 18 age group of students regarding the above said factors of school environment. Since the P values are higher than 0.05, the hypothesis is accepted for the factors of school environment like need of individual attention, overload of homework and studies, problem of balancing school and home and challenge of present examination system. It indicates that there are no significant differences between 14 to 15 and 16 to 18 age group of students regarding these factors of school environment. It indicates that both age groups of students are getting same level of attainment regarding these factors. Based on mean score, it is inferred that students of 14 to 15 age groups are happier with the school related factors like teacher's encouragement, need of individual attention and challenge of competition in studies. The 16 to 18 age group of students are happier with the factors like overload of homework and studies, problem of balancing school and challenge of present examination system.

6.9. Students' Perception on Student Engagement in Learning

The perception of students regarding their engagement in learning is studied based on the hypothesis that there is no significant difference between the sample

mean and the population mean. The engagement of students in learning are analyzed with the help of mean score and one sample T test.

Table 6.27
Student's Engagement in Learning in Thrissur (2020)

SI No	Student engagement in learning	Mean	Standard Deviation	Mean difference	T value	P Value
1	Understanding the concepts	2.90	1.62	-0.09	-1.40	0.160 ^{NS}
2	Listening classes properly	2.85	1.60	-0.14	-2.21	0.027*
3	Enjoy learning new things	2.99	1.69	-0.00	-0.02	0.981 ^{NS}
4	Attention in class	2.90	1.61	-0.09	-1.41	0.157 ^{NS}
5	Interested in school work	2.76	1.59	-0.23	-3.66	0.000**

Source: Computed from Primary Data

Notes: Mean Score and one sample T Test

Test Value: 3; ** denotes significant at 1% level,

NS non- significant

The P values are less than 0.01 for the student engagement in learning such as interested in school work. The P value is less than 0.05 for the factor such as listening classes properly by students. The P value is greater than 0.05 for the factors understanding the concepts, enjoy learning new things and attention in class. It means that the above said factor of school students' engagement in learning are not equal to average level. The mean values shows that all the factors of student engagement in learning like understanding the concepts, listening classes properly, enjoy learning new things, attention in class and interested in school work are below the average level (>3 , 3 is the test value). Thus the result shows that all the factors of student engagement in learning must be improved in schools. Based on mean rank, it is inferred that the area in which students are more engaged is enjoying learning new things in class followed by understanding concepts, attention in class, listening classes properly and interested in school work.

Student's perceptions on student engagement in learning are studied and compared with respect to their gender. The hypothesis is that there is no significant difference between male and female students regarding the factors of their engagement in learning. By using independent T test, the significant difference between male and female student's engagement in learning is shown in the Table 6.28. The P value is less than 0.01 with respect to the factor of student engagement in learning like interested in school work. It indicates that there is a significant difference between male and female students regarding this factor of student

engagement in learning. The P value is less than 0.05 with respect to the factors of student engagement in learning like understanding the concepts, listening classes properly, enjoy learning new things, and attention in class.

Table 6.28

Male and Female Student’s Engagement in Learning in Thrissur (2020)

Factors of students engagement in learning	Gender of the students				T value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Understanding the concepts	2.74	1.57	3.05	1.66	-2.29	0.022*
Listening classes properly	2.70	1.55	2.98	1.63	-2.13	0.033*
Enjoy learning new things	2.80	1.61	3.16	1.74	-2.59	0.010*
Attention in class	2.74	1.54	3.05	1.65	-2.31	0.021*
Interested in school work	2.53	1.49	2.96	1.64	-3.28	0.001**

Source: Computed from Primary Data

Notes: Mean Score and Independent T Test,

** denotes significant at 1% level

* denotes significant at 5% level

It shows that there are significant differences between male and female students regarding all these factors of student engagement in learning. It is evident that female students are more engaged in learning regarding all aspects than male students. The mean scores are high in the case of both male and female students regarding the factors like enjoy learning new things followed by understanding the concepts, attention in class, listening classes properly and Interested in school work.

Student’s perceptions on student engagement in learning are compared with respect to their age based on the hypothesis that there is no significant difference between age group of students regarding the factors of their engagement in learning (Table 6.29). With the help of T test, significant difference between 14 to 15 and 16 to 18 age group of students regarding the factors of student engagement in learning are analysed. It is estimated that the P values are higher than 0.05 for all the factors of student engagement in learning, the hypothesis is accepted for the factors of student engagement in learning like understanding the concepts, listening classes properly, enjoy learning new things, attention in class and interested in school work.

Table 6.29

Age Group of Students and their Engagement in Learning in Thrissur (2020)

Factors of students engagement in learning	Age of the students				T value	P value
	14 to 15 Years		16 to 18 Years			
	Mean	SD	Mean	SD		
Understanding the concepts	2.88	1.65	2.92	1.59	-0.29	0.765 ^{NS}
Listening classes properly	2.88	1.66	2.82	1.52	0.44	0.658 ^{NS}
Enjoy learning new things	2.99	1.72	3.00	1.66	-0.11	0.905 ^{NS}
Attention in class	2.92	1.67	2.88	1.53	0.35	0.721 ^{NS}
Interested in school work	2.72	1.61	2.79	1.56	-0.52	0.598 ^{NS}

Source: Computed from Primary Data

Notes: Mean Score and independent T Test, NS denotes non-significant

It indicates that there are no significant differences between 14 to 15 and 16 to 18 age group of students regarding these factors of student engagement in learning.

Table 6.30
Level of Students' Engagement in Learning in Thrissur (2020)

Attribute	Low level (Q1)	Moderate level (Q2)	High level (Q3)	Total	Chi-Square value	P value
Level of student's engagement in learning	215 (35.8%)	141 (23.5%)	244 (40.7)	600 (100%)	28.210	<0.001**

Source: Computed from Primary Data

Notes: Level Test

** indicates significant at 1% level

It means both age groups of student's engagement in learning are almost the same. Student engagement in learning are analysed with the help of Level test based on the hypothesis that proportions of the level of student's engagement in learning in school education in Thrissur is equally distributed. The level of students' engagement in learning in school education in Thrissur is analyzed with the help of quartile deviation and chi-square test. As the P value is less than 0.01, the proportions of level of student's engagement in learning in school education in Kerala are not equally distributed. It indicates that there is significant difference regarding the level of students' engagement in learning in school education in Kerala. From the Table 6.31, it is observed that 35.8 per cent of students have low level engagement in their learning (understating the concept that what teachers taught in the class, listening classes carefully, enjoying learning new things, attention in class and interest in school works). Among them 23.5 per cent are moderately engaged in learning, 40.7 per cent of students are highly engaged in their leaning.

Table 6.31

The Association between Gender and Level of Students' Engagement in Learning in Thrissur (2020)

Gender	Level of engagement			Total	Chi-square Value	P value
	Low level	Moderate level	High level			
Male	104 (36.6%)	89 (31.3%)	91 (32%)	284 (100%)	24.053	<0.001**
Female	111 (35.1%)	52 (16.5%)	153 (48.4%)	316 (100%)		
Total	215 (35.8%)	141 (23.5%)	244 (40.7%)	600 (100%)		

Source: Computed from Primary Data

Notes: Chi square Test

The figures in parentheses refers Row Percentage, ** denotes 1% level of significance.

So, it is inferred that most of the students are highly engaged in their learning. It means students are better in understating the concept that what teachers taught in the class, they listening the classes carefully, enjoying learning new things, attending the classes and they have abundant interest in the school works. On the basis of row

percentage, 36.6 per cent of boy students are engaged in their learning at low level. 31.3 per cent of them are at moderate level and 32 per cent of them are at high level.

In the case of girl students, 35.1 per cent of them are at low level, 16.5 per cent of them are at moderate level and 48.4 per cent of them are high level. So, it is evident that low level students engagement in learning is higher among male students and high level students' engagement in learning is higher among female students. It also reveals that moderate level of student's engagement in learning is higher among male students. It is obvious that students' engagement in learning is more among female students compared to male. Students' perception on student engagement in learning with respect to their age is compared. The hypothesis is that there is no significant association between age and level of students' engagement in learning using Chi-square test. It is analysed from the Table 6.32 that the P value is less than 0.05; the null hypothesis is rejected at 5 per cent level. Hence, it is inferred that there is significant association between age and level of students' engagement in learning in schools in Thrissur. On the basis of row percentage, 38.2 per cent of students under the age group 14 to 15 years are engaged in their learning at low level and 19.3 per cent of them are at moderate level and 42.5 per cent of them are at high level. In the case of 16-18 years of age group students, 33.1 per cent of them are under low level, 28.4 per cent of them are at moderate level and 38.5 per cent of them are high level of engagement in learning. So, it is obvious from the analysis that low level students engagement in leaning is higher among 14 to 15 age group students and high level students' engagement is also higher among 14 to 15 age group students and moderate level of student's engagement is higher among 16 to 18 age group students. It reveals that students' engagement in learning is more among 14-15 age group students compared to 16-18 age groups of students.

Table 6.32

The Association between Age And Level of Students' Engagement In Learning in Thrissur (2020)

Age groups	students engagement in learning			Total	Chi-square Value	P value
	Low level	Moderate level	High level			
14 to 15 years	123 (38.2%)	62 (19.3%)	137 (42.5%)	322 (100%)	7.214	0.028*
16 to 20 years	92 (33.1%)	79 (28.4%)	107 (38.5%)	278 (100%)		
Total	215 (35.8%)	141 (23.5%)	244 (40.7%)	600 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test

The figures in parentheses refers Row Percentage, * denotes 5 % level significance

6.10. Parental Care and Support on Children’s Education

Parents play an important role in children’s education. So it is important to study the factors of parental care and support such as spending time with the child, support child’s learning at home, good relationship with the child, motivate child’s learning at home and providing facilities for better learning at home (Mukherjee et.al, 2008). The perspectives of parents regarding parental care and support are analyzed based on the hypothesis that factors of parents’ perspectives on parental care and support are equal to average level (Table 6.33). The P value is less than 0.05 for the factor like spending a lot of time with the child. The P value is greater than 0.05 for the factor support child’s learning at home. It means that the above said factors of parental care and support are not equal to average level. The mean values show that all the factors of parental care and support are below average level. (>3, 3 is the test value). The factors are spending time with the child, support child’s learning at home, good relationship with the child; motivate child’s learning at home and providing facilities for better learning at home. The result reveals that the parents are not providing good parental care and support to their children at home. All the mean values of parental care and support show that more parental involvement is required for better educational outcome. On the basis of mean rank, it is inferred that the most preferred factor is supporting child’s learning at home followed by spending a lot of time with the child, motivate child’s learning at home, providing facilities for better learning at home and good relationship with the child respectively. So it is inferred that parental care and support is to be improved for the better educational attainment of the child as it is not satisfactory.

Table 6.33
Parental Care and Support on Children’s Education in Thrissur District (2020)

SI No	Parents’ perception	Mean	SD	Mean difference	T value	P Value	Rank
1	Spending time with the child	2.80	1.41	-0.19	-2.40	0.017*	II
2	Support child’s learning at home	2.84	1.40	-0.15	-1.92	0.055 ^{NS}	I
3	Good relationship with the child	2.40	1.46	-0.60	-7.07	<0.001**	V
4	Motivate child’s learning at home	2.55	1.46	-0.44	-5.25	<0.001**	III
5	Providing facilities for better learning at home	2.46	1.45	-0.54	-6.41	<0.001**	IV

Source: Computed from Primary Data

Notes: Test Value: 3;

Mean score and one sample T test,

** denotes significant at 1% level

6.10.1. Parental Care and Support and Age

Parents' perception on parental care and support with respect to their age are compared with the help of ANOVA test. The hypothesis is formulated that there is no significant difference among different age group of parents with respect to dimensions to parents' perception on Parental care and support. The P value is less than 0.01, null hypothesis is rejected at 1% level with regard to the factor of parental care and support providing facilities for better learning at home.

Hence, there is significant difference among various age groups of parents in their perception regarding the parental care and support factor, providing facilities for better learning at home. There is no significant difference among various age group of parents regarding their perception towards the parental care and support factors such as spending a lot of time with the child, support child's learning at home, good relationship with the child and motivate child's learning at home.

Since P value is greater than 0.05, the null hypothesis is accepted. Based on mean score, it is observed that the 31 to 40 age group parents consider the factor, support child's learning at home (2.71) as major parental care and support factor followed by spending time with the child (2.69), motivate child's learning at home (2.41), providing facilities for better learning at home (2.26), good relationship with the child (2.14).

Table 6.34(a)
Comparison of Age Group and Parental Care and Support in Thrissur (2020)

Factors of parents' perception on Parental care and support	Age group			F value	P value
	31 to 40 years	41 to 50 years	Above 51 Years		
	Mean (SD)	Mean (SD)	Mean (SD)		
Spending time with child	2.69 (1.45)	2.86 (1.39)	2.79 (1.47)	0.437	0.647 ^{NS}
Support child's learning at home	2.71 (1.45)	2.95 (1.35)	2.58 (1.50)	1.429	0.241 ^{NS}
Good relationship with the child	2.14 (1.45)	2.55 (1.46)	2.31 (1.49)	2.410	0.092 ^{NS}
Motivate child's learning at home	2.41 (1.48)	2.67 (1.43)	2.31 (1.49)	1.481	0.229 ^{NS}
Providing facilities for better learning at home	2.26 (1.46)	2.65 (1.44)	1.89 (1.37)	4.78	0.009 ^{**}

Source: Computed from Primary data

Notes: ANOVA Test, ** denotes significant at 1% level.

NS denotes non-significant, The figures in parentheses refers SD

It indicates that 31 to 40 age group parents consider that supporting child's learning at home is the important parental care and support factor followed by spending time with the child and motivating child's learning at home.

Table 6.34(b)

Parental Care and Support on the Basis of Age in Thrissur District 2020 (Post Hoc Test)

Factors of parents' perception on Parental care and support	Age (I)	Age (J)	Mean difference (I-J)	Std. error	P value
Providing facilities for better learning at home	31 to 40	41 to 50	-0.395	0.183	0.080 ^{NS}
		51 and above	0.366	0.305	0.455 ^{NS}
	41 to 50	51 and above	0.762	0.288	0.024*

Source: Computed from Primary data

Notes: NS denotes non-significant

* denotes significant at 5% level

In the case of 41 to 50 years age group parents, most perceived parental care and support factor is support child's learning at home (2.95) followed by spending time with the child (2.86), motivate child's learning at home (2.67), providing facilities for better learning at home (2.65), good relationship with the child (2.55). It shows that supporting child's learning at home is the most considered parental care and support factor among 41 to 50 years age group parents followed by spending time with the child and motivate child's learning at home.

In the case of above 51 years age group parents, spending time with the child (2.79) is the most perceived parental care and support factor followed by support child's learning at home (2.58), good relationship with the child (2.31), motivate child's learning at home (2.31) and providing facilities for better learning at home (1.89). It means that above 51 age group parents consider that spending time with the child is the important parental care and support followed by supporting child's learning at home and maintaining good relationship with the child. 41 to 50 age group parents are significantly differed with 51 and above age group parents regarding the factor, providing facilities for better learning at home. On the basis of mean score, it is perceived that 41 to 50 age group parents are better in providing facilities for better learning at home than above 51 age group parents.

To know which groups are significantly different, a 'Post Hoc' test is carried out using 'Turkey's HSD Test'. The following significant difference found among the age group of parents and factors of parents' perception on Parental care and support. Parents of 41 to 50 age group are significantly differed with 51 and above age group parents regarding the factor, providing facilities for better learning at home. On the

basis of mean score, it is interpreted that 41 to 50 age group parents are better in providing facilities for better learning at home than above 51 age group parents.

6.10.2. Parental Care and Support and Religion

The significant differences among parents on the basis of their religion and parental care and support is analysed with the help of ANOVA test in Table 35(a).

Table 6.35(a)
Comparison of Religion of Parents and Parental Care and Support in Thrissur (2020)

Parental care and support	Religion			F value	P value
	Hindu	Christian	Muslim		
	Mean and SD	Mean and SD	Mean and SD		
Spending time with the child	2.42 (1.44)	3.40 (1.18)	3.00 (1.35)	11.740	<0.001**
Support child's learning at home	2.36 (1.44)	3.40 (1.14)	3.19 (1.27)	17.329	<0.001**
Good relationship with the child	1.89 (1.34)	3.00 (1.38)	2.76 (1.45)	17.920	<0.001**
Motivate child's learning at home	2.10 (1.41)	3.05 (1.33)	2.89 (1.41)	13.719	<0.001**
Providing facilities for better learning at home	1.92 (1.35)	3.38 (1.14)	2.68 (1.44)	24.970	<0.001**

Source: Computed from Primary Data

Notes: ANOVA Test

The value within bracket refers to SD, ** denotes significant at 1% level.

As the P value is less than 0.01, null hypothesis is rejected at 1% level with respect to all the dimensions of parental care and support of different caste groups of parents. The mean values are higher for Christians followed by Muslims and Hindus, indicating the result that Christian parents inclined to show more parental care and support to their children. Thus regarding different religions, it is statistically proved that among all the dimensions of parental care and support, like spending time with the child, supporting child's learning at home, good relationship with the child, motivating child's learning at home and providing facilities for better learning at home there are significant differences between these different groups. Based on Turkey HSD post hoc test, the following significant difference is found among the perception of various caste groups of parents regarding the factors of parental care and support. Hindu parents are significantly differed with Christian and Muslim parents regarding the factor of spending time with the child and Christian parents have not shown a significant difference with Muslim parents on the same factor. Considering the support given by parents to their children at home also there are

significant differences between Hindus and Christians and no significant differences between Christians and Muslims.

Table 6.35 (b)

Parental Care and Support on the Basis of Religion in Thrissur District 2020 (Post hoc Test)

Parental Care and Support	Religion(I)	Religion (J)	Mean difference (I-J)	Std. error	P value
Spending time with the child	Hindu	Christian	-0.978	0.218	<0.000**
		Muslim	-0.578	0.176	0.003**
	Christian	Muslim	0.400	0.228	0.187 ^{NS}
Support child's learning at home	Hindu	Christian	-1.035	0.212	<0.000**
		Muslim	-0.826	0.172	<0.000**
	Christian	Muslim	0.209	0.222	0.614 ^{NS}
Good relationship with the child	Hindu	Christian	-1.107	0.221	<0.000**
		Muslim	-0.869	0.179	<0.000**
	Christian	Muslim	0.238	0.231	0.561 ^{NS}
Motivate child's learning at home	Hindu	Christian	-0.947	0.223	<0.000**
		Muslim	-0.788	0.181	<0.000**
	Christian	Muslim	0.159	0.233	0.774 ^{NS}
Providing facilities for better learning at home	Hindu	Christian	-1.453	0.215	<0.000**
		Muslim	-0.757	0.174	<0.000**
	Christian	Muslim	0.696	0.225	0.006 ^{NS}

Source: Computed from Primary data
 Notes: ** denotes significant at 1% level.
 * denotes significant at 5% level, NS denotes non- significant.

The same trend is seen in the case of all the dimension of parental care and support among different caste groups like good relationship with the child, motivating child's learning at home and providing facilities for better learning at home. On the basis of mean score, it is observed that Christian parents show more parental care and support than Muslims and Hindus regarding all the factors of parental care and support. There are significant differences between Christians and Hindus and no significant differences between Christians and Muslims regarding the same.

6.10.3. Parental Care and Support and Caste

Parents' perception on parental care and support with respect to their caste is compared and the hypothesis is formulated that there is no significant difference on the basis of caste of parents regarding parental care and support. The perception of parents regarding parental care and support on the basis of different categories is analyzed with the help of ANOVA test (Table 6.36(a)). As the P value is less than 0.01, null hypothesis is rejected at 1% level with respect to all the different dimensions of parental care and support like spending time with the child, support child's learning at home, good relationship with the child, motivate the child's learning at home and providing facilities for better learning at home. Thus there are

significant differences between parents regarding all these aspects of parental care and support.

Table 6.36(a)
Comparison of Caste Group and Parental Care and Support in Thrissur (2020)

Parental care and support	Caste				F value	P value
	OEC	OBC	SC/ST	Others		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Spending time with the child	3.65 (0.92)	2.65 (1.43)	2.84 (1.40)	2.29 (1.48)	8.998	<0.001**
Support child's learning at home	3.48 (1.11)	2.77 (1.42)	2.76 (1.36)	2.29 (1.44)	5.603	0.001**
Good relationship with the child	3.25 (1.28)	2.29 (1.46)	2.64 (1.43)	1.45 (1.05)	11.827	<0.001**
Motivate the child's learning at home	3.17 (1.27)	2.51 (1.47)	2.48 (1.38)	1.87 (1.38)	5.708	0.001**
Providing facilities for better learning at home	3.23 (1.24)	2.31 (1.46)	2.56 (1.38)	1.96 (1.42)	7.067	<0.001**

Source: Computed from Primary Data

Notes: ANOVA Test

The value within bracket refers to SD

** denotes significant at 1% level.

By using Turkey HSD post hoc test, significant difference found among the perception of various category groups of parents regarding all the factors of parental care and support. OEC parents are significantly differed with OBC parents regarding the factor that they spend time with the child and do not show a significant difference with SC/ST parents and have shown significant differences with other categories of parents regarding the same factor. OBC parents are not significantly different with SC/ST and others and SC/ST parents are not significantly different with other regarding the same factor. Considering supporting child's learning at home, there are significant differences between OEC with OBC and others and no significant differences between SC/ST. OBC parents are not significantly different from SC/ST and others and SC/ST are not statistically different from others regarding the same factor. Regarding good relationship with the child, there are significant differences between OEC, OBC and others and no significant differences between SC/ST categories of parents. OBC category of parents is not significantly different from SC/ST and different from others. SC/ ST category of parents are significantly different with other categories regarding the same factor. SC/ ST category of parents are significantly different with other categories regarding the same factor. OEC parents are significantly different with OBC and others considering the factor of motivation they give to their child at home. OBC parents are not different with SC/

ST and others and SC/ST is not different with other categories regarding the same factor.

Table 6.36(b)

Parental Care and Support and Caste (Post hoc Test) in Thrissur district 2020

Parental Care and Support	Caste(I)	Caste (J)	Mean difference (I-J)	Std. error	P value
Spending time with the child	OEC	OBC	1.002	0.213	0.000**
		SC/ST	0.813	0.332	0.070 ^{NS}
		Others	1.363	0.309	0.000**
	OBC	SC/ST	-0.188	0.290	0.915 ^{NS}
		Others	0.360	0.264	0.522 ^{NS}
	SC/ST	Others	0.549	0.366	0.440 ^{NS}
Support child's learning at home	OEC	OBC	0.709	0.215	0.006*
		SC/ST	0.720	0.334	0.139 ^{NS}
		Others	1.190	0.312	0.001**
	OBC	SC/ST	0.010	0.292	1.000 ^{NS}
		Others	0.480	0.266	0.273 ^{NS}
	SC/ST	Others	0.469	0.369	0.582 ^{NS}
Good relationship with the child	OEC	OBC	0.958	0.218	0.000**
		SC/ST	0.610	0.339	0.278 ^{NS}
		Others	1.798	0.316	0.000**
	OBC	SC/ST	-0.348	0.296	0.644 ^{NS}
		Others	0.840	0.270	0.011*
	SC/ST	Others	1.188	0.375	0.009**
Motivate the child's learning at home	OEC	OBC	0.662	0.223	0.017*
		SC/ST	0.693	0.347	0.192 ^{NS}
		Others	1.302	0.323	0.000**
	OBC	SC/ST	0.030	0.303	1.000 ^{NS}
		Others	0.639	0.276	0.097 ^{NS}
	SC/ST	Others	0.609	0.383	0.387 ^{NS}
Providing facilities for better learning at home	OEC	OBC	0.913	0.221	0.000**
		SC/ST	0.670	0.344	0.211 ^{NS}
		Others	1.263	0.321	0.001**
	OBC	SC/ST	-0.242	0.301	0.852 ^{NS}
		Others	0.349	0.274	0.579 ^{NS}
	SC/ST	Others	0.592	0.380	0.406 ^{NS}

Source: Computed from Primary data
 Notes: ** denotes significant at 1% level, * denotes significant at 5% level,
 NS denotes non-significant

On account of providing facilities for better learning at home, OEC are different with OBC and others and not much different from SC/ST. OBC category of parents are not significantly different from SC/ST and others, and SC/ST parents are not different from other category of parents regarding the same. On the basis of mean score and the above related factors of parental care and support, it can be observed that OEC parents gave more importance to all the dimensions of parental care and support followed by SC/ST, OBC and other category of parents. The mean scores are below average level for all categories of parents except OEC category of parents. Thus it can be inferred from the analysis that parental care and support are not

satisfactory. It is to be improved for the betterment of the educational attainment of the child.

6.10.4. Parental Care and Support and School Type

Parents' perception on parental care and support with respect to their children attending school are compared.

Table 6.37(a)

Comparison of Parental Care and Support with School Type of Students in Thrissur (2020)

Parental Care and Support	School Type			F value	P value
	Govt.	Aided	CBSE		
	Mean and SD	Mean and SD	Mean and SD		
Spending time with the child	2.55 (1.44)	2.62 (1.45)	3.52 (1.01)	12.474	<0.001**
Support child's learning at home	2.71 (1.44)	2.49 (1.44)	3.69 (0.83)	18.655	<0.001**
Good relationship with the child	2.20 (1.46)	2.07 (1.40)	3.30 (1.22)	19.100	<0.001**
Motivate child's learning at home	2.34 (1.46)	2.27 (1.44)	3.41 (1.13)	16.719	<0.001**
Providing facilities for better learning at home	2.30 (1.46)	2.10 (1.40)	3.35 (1.16)	19.070	<0.001**

Source: Computed from Primary Data

Notes: ANOVA Test, The figures within parentheses refers to SD, ** denotes significant at 1% level.

The hypothesis is formulated that there is no significant difference among parents on the basis of class regarding parental care and support.

Table 6.37(b)

Parental Care Regarding School Type in Thrissur District in 2020 (Post Hoc Test)

Parental Care and Support	School type (I)	School type (J)	Mean difference (I-J)	Std. error	P value
Spending time with the child	Govt.	Aided	-0.065	0.179	0.930 ^{NS}
		CBSE	-0.973	0.211	0.000**
Support child's learning at home	Aided	CBSE	-0.908	0.206	0.000**
		Govt.	0.221	0.175	0.418 ^{NS}
Good relationship with the child	Govt.	CBSE	-0.978	0.205	0.000**
		Aided	-1.199	0.200	0.000**
Motivate child's learning at home	Govt.	Aided	0.131	0.182	0.753 ^{NS}
		CBSE	-1.105	0.214	0.000**
Providing facilities for better learning at home	Aided	CBSE	-1.236	0.209	0.000**
		Govt.	0.068	0.182	0.926 ^{NS}
Support child's learning at home	Govt.	CBSE	-1.069	0.215	0.000**
		Aided	-1.137	0.209	0.000**
Providing facilities for better learning at home	Govt.	Aided	0.200	0.181	0.511 ^{NS}
		CBSE	-1.047	0.213	0.000**
Support child's learning at home	Aided	CBSE	-1.248	0.207	0.000**

Source: Computed from Primary data

Notes: ** denotes significant at 1% level, NS denotes non - significant

The significant difference among parents on the basis of school types in which their child is studying regarding parental care and support is being analysed with the help of ANOVA test. Since P value is less than 0.01, null hypothesis is rejected at 1%

level with respect to all the different dimensions of parental care and support. The factors are; spending time with the child, support child's learning at home, good relationship with the child; motivate child's learning at home and provide facilities for better learning at home. As a result, there are significant differences among parents on the basis of children attending school type regarding parental care and support. Parents of CBSE school going children provides more care and support concerning all the above said dimensions than parents of government and aided school children in this regard.

The following significant difference found among parents on the basis of school types in which their child is attending regarding parental care and support they give to their children at home by using Post-hoc test. Parents of Government School attending children are different with CBSE School attending parents and parents of aided school attending children are different with that of CBSE about the time they spent with their child at home. Taking into consideration, the support they give to their children at home, parents of government school going children are different with that of CBSE and parents of aided school going children are different with that of CBSE. Parents of government school going children are different with that of CBSE and not different with parents of aided school going children and parents of aided school going children are different with that of CBSE on account of the good relationship that they kept up with their children. On account of motivation given by parents, there are significant differences between Government and CBSE, aided and CBSE and no significant differences between Government and aided parents. Regarding the facilities parents give for their child for better learning at home also the same trend is seen, i.e. there are significant differences between Government and CBSE, aided and CBSE and no significant differences with Government and aided parents.

6.10.5. Parental Care and Support and Geographical Location

Parents' perception on parental care and support with respect to their locality are compared. The hypothesis is formulated that there is no significant difference between parents based on the area in which they are living and the factors of parental care and support. It is analysed with the help of one sample T test and mean score. The P value is less than 0.01 for all the factors of parental care and support and the null hypothesis is rejected at 1 per cent level with regard to all the factors of the same

among parents living in rural and urban areas regarding the factors like spending time with the child, support child's learning at home, good relationship with the child, motivate child's learning at home and provide facilities for better learning at home.

It means there are significant differences among parents on the basis of the area or locality in which they are living and factors of parental care and support. Based on mean score, it is interpreted that urban families are providing more parental care and support to their children at home than parents living in rural areas by taking into account all the dimensions. Thus it is inferred that there are rural and urban differences regarding parental support on the basis of locality or area in which they are living.

Table 6.38
Difference Between Parents on the basis of Locality and Parental Care and Support in Thrissur (2020)

Parental care and Support	Locality				T value	P Value
	Rural		Urban			
	Mean	SD	Mean	SD		
Spending time with the child	2.33	1.42	3.43	1.13	-7.23	<0.001**
Support child's learning at home	2.49	1.44	3.31	1.20	-5.19	<0.001**
Good relationship with the child	1.86	1.32	3.11	1.34	-8.02	<0.001**
Motivate child's learning at home	2.02	1.37	3.27	1.25	-8.08	<0.001**
Providing facilities for better learning at home	1.89	1.32	3.21	1.27	-8.68	<0.001**

Source: Computed from Primary Data
Notes: One Sample T Test and Mean Score
** denotes significant at 1% level

6.11. Parents' Perspectives on Free and Compulsory Education

The perspectives of parents regarding free and compulsory education using mean test and the hypothesis is formulated that there is no significant difference between the sample mean and the population mean.

Table 6.39

Free and Compulsory Education from the Perspective of Parents in Thrissur (2020)

SI No	Factors of Free and compulsory education	Mean	Standard Deviation	Mean difference	T value	P Value
1	Gives equal opportunities for every child	2.86	1.44	-0.13	-1.59	0.111 ^{NS}
2	Improves the education system	2.89	1.43	-0.10	-1.25	0.212 ^{NS}
3	Improves the quality of education	2.89	1.43	-0.10	-1.24	0.213 ^{NS}

Source: Computed from Primary data
Notes: Mean Score and one sample T Test
Test Value: 3; ** denotes significant at 1% level

The free and compulsory education from the perspective of parents is analyzed with the help of mean score and one sample T Test. The P value is greater than 0.05 for all the factors of free and compulsory education from the perspective of parents. The factors are it gives equal opportunities for every child, improves the education

system and improves the quality of education. The mean values show that all the factors are equal to average level =3, (3 is the test value). The factors such as it gives equal opportunities for every child, improves the education system and improves the quality of education are at average level. Based on mean rank, it is inferred that the most preferred factor is that it improves the education system and improves the quality of education followed by giving equal opportunities for every child respectively. So it is inferred that parents are average in utilizing the free and compulsory education provided by the government.

6.11.1. Age, Religion, Caste and Free and Compulsory Education

The perception of parents with respect to their age regarding free and compulsory education are compared. The hypothesis is formulated that there is no significant difference among different age group of parents with respect to dimensions of Free and Compulsory Education. By using ANOVA, significant difference among various age group of parents regarding Free and Compulsory Education is analysed. Since P value is greater than 0.05, the null hypothesis is accepted with regard to all the factors of free and compulsory education in Kerala.

Table 6.40
Comparison of Age of Parents with Free and Compulsory Education in Thrissur (2020)

Free And Compulsory Education	Age group			F value	P value
	31 to 40 years	41 to 50 years	Above 51 Years		
	Mean and SD	Mean and SD	Mean and SD		
Gives equal opportunities for every child	2.75 (1.46)	2.99 (1.41)	2.44 (1.52)	2.188	0.114 ^{NS}
Improves the education system	2.67 (1.47)	3.04 (1.38)	2.72 (1.48)	2.338	0.098 ^{NS}
Improves the quality of education	2.70 (1.47)	3.02 (1.39)	2.75 (1.50)	1.666	0.191 ^{NS}

Source: Computed from Primary Data

Notes: ANOVA Test

The figures within parentheses refer to SD; NS denotes non-significant.

Regarding all the different dimensions of free and compulsory education, there are no differences among different age groups of the study. There are no statistically proven differences between different age group of parents regarding all these dimensions. The perception of parents with respect to their age is compared. The hypothesis is formulated that there is no significant association between age of parents and level of Free and Compulsory Education.

With the help of Chi square test it is analysed. It is statistically proved by the test that the P value is greater than 0.05, the null hypothesis is accepted at 5 per cent level. So it is interpreted that there is no significant association between age of parents and free and compulsory education. On the basis of row percentage, 33.7 per cent of parents under the age group 31 to 40 years have low level of favourable opinion towards free and compulsory education, 17.9 per cent of them are at moderate level and 48.4 per cent of them are at high level

Table 6.41
Free and Compulsory Education and its Association with Age of Parents in Thrissur (2020)

Age	Level of Free and Compulsory Education			Total	Chi-square Value	P value
	Low	Moderate	High			
31 to 40	32 (33.7%)	17 (17.9%)	46 (48.4%)	95 (100%)	8.583	0.072 ^{NS}
41 to 50	48 (27.3%)	19 (10.8%)	109 (61.9%)	176 (100%)		
51 and above	10 (34.5%)	7 (24.1%)	12 (41.4%)	29 (100%)		
Total	90 (30%)	43 (14.3%)	167 (55.7%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi- Square Test.

The figures within parentheses refers to Row Percentage

NS denotes non-significant.

In the case of 41 to 50 age group parents, 27.3 per cent of them are under low level, 10.8 per cent of them are at moderate level and 61.9 per cent of them are at high level. Considering the age group of above 51 age, 34.5 per cent have low level, 24.1 per cent have moderate level and 41.4 per cent have high level of favourable opinion towards free and compulsory education.

Table 6.42(a)

Comparison of Caste of Parents with Free and Compulsory Education in Thrissur (2020)

Free and Compulsory Education	Caste group				F value	P value
	OEC	OBC	SC/ST	Others		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Gives equal opportunities for every child	3.46 (1.14)	2.78 (1.46)	3.04 (1.42)	2.22 (1.45)	5.524	.0010**
Improves the education system	3.50 (1.09)	2.78 (1.45)	3.28 (1.30)	2.29 (1.48)	6.270	<0.001**
Improves the quality of education	3.50 (1.09)	2.80 (1.45)	3.04 (1.42)	2.35 (1.51)	5.099	0.002**

Source: Computed from Primary data

Notes: ANOVA test

The figures within parentheses refers to SD,

** denotes significant at 1% level.

So, it is seen that low level of favourable opinion towards free and compulsory education is higher in the case of 51 and above age group parents and high level of favourable opinion towards free and compulsory education is among 41 to 50 age group of parents and moderate level of the same is among 51 and above age group of parents. The study also statistically proves that majority of the parents are supporting free and compulsory education in Kerala. The results thus show that all the parents of the study do not give any importance to free and compulsory education regarding the above said dimensions of it. The mean score also shows that it is not above average level. So parents of different age groups are not giving that much importance to the free and compulsory education policy of the government. The perception of parents with respect to their caste regarding free and compulsory education is compared in the Table 6.42 (a).The hypothesis is formulated that there is no significant difference among different caste group of parents regarding Free and Compulsory Education.

Table 6.42(b)
Free and Compulsory Education and Caste of Parents (Post Hoc Test) in Thrissur 2020

Free and Compulsory Education	Caste(I)	Caste (J)	Mean difference (I-J)	Std. error	P value
Gives equal opportunities for every child	OEC	OBC	0.675	0.221	0.013*
		SC/ST	0.421	0.344	0.611 ^{NS}
		Others	1.235	0.320	0.001**
	OBC	SC/ST	-0.253	0.300	0.834 ^{NS}
		Others	0.560	0.273	0.173 ^{NS}
		SC/ST	0.814	0.380	0.142 ^{NS}
Improves the education system	OEC	OBC	0.718	0.217	0.006**
		SC/ST	0.220	0.339	0.916 ^{NS}
		Others	1.209	0.316	0.001**
	OBC	SC/ST	-0.498	0.296	0.335 ^{NS}
		Others	0.490	0.269	0.266 ^{NS}
		SC/ST	0.989	0.374	0.043*
Improves the quality of education	OEC	OBC	0.697	0.219	0.009**
		SC/ST	0.460	0.342	0.536 ^{NS}
		Others	1.145	0.319	0.002**
	OBC	SC/ST	-0.237	0.299	0.856 ^{NS}
		Others	0.447	0.272	0.356 ^{NS}
		SC/ST	0.685	0.378	0.270 ^{NS}

Source: Computed from Primary data

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

NS denotes non- significant

On the basis of mean score and the above related factors of free and compulsory education, it is observed that OEC parents gave more importance to all the dimensions of free and compulsory education than OBC, SC/ST and others.

According to OEC parents the most important aspect of free and compulsory education is that it improves the education system and quality of education. To OBC and other category of parents it is improving the quality of education and for SC/ST parents it is improving the education system. There are significant differences between all these categories of parents regarding free and compulsory education. It is also statistically proven that comparatively OEC and SC/ST categories show a favourable attitude towards free and compulsory education than OBC and other category of parents. With the help of Turkey HSD post hoc test, from the Table 7.42(b) the following significant difference found among the perception of various category groups of parents regarding free and compulsory education in Kerala.

OEC parents are significantly differed with OBC and other category of parents and not different with SC/ST category of parents regarding the factor that it gives equal opportunities for every child. OBC parents do not show a significant difference with SC/ST and others regarding the same factor and there are no differences between SC/ST and other category of parents in this regard. Considering improving the education system there are significant differences among OEC, OBC and others and no significant differences with SC/ST parents.

Table 6.43

Free and Compulsory Education and its Association with Religion of Parents in Thrissur (2020)

Religion	Level of Free and Compulsory Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Hindu	53 (37.9%)	28 (20%)	59 (42.1%)	140 (100%)	26.281	<0.001**
Christian	10 (18.2%)	1 (1.8%)	44 (80%)	55 (100%)		
Muslim	27 (25.7%)	14 (13.3%)	64 (61%)	105 (100%)		
Total	90 (30%)	43 (14.3%)	167 (55.7%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi- Square Test

The figures within parentheses refers to Row Percentage

** denotes 1 % level significance

OBC parents are not significantly different with SC/ST and others and SC/ST is different compared to others regarding the same factor. Regarding improving the quality of education there are significant differences with OEC, OBC and others and no significant differences with OEC and SC/ST. There are no differences between OBC and SC/ST, OBC and others and SC/ST and others regarding the same factor.

The perception of parents with respect to their religion is compared and the hypothesis is formulated that there is no significant association between religion of parents and level of Free and Compulsory Education (Table 6.43). With the help of Chi square test, the significant association between religion of parents and level of free and compulsory education is analysed in the table. It is clear that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. So, it is interpreted that there is significant association between religion and level of free and compulsory education. On the basis of row percentage, 37.9 per cent of Hindu parents are not in favour of free and compulsory education. 20 per cent of them are at moderate level and 42.1 per cent of them are at high level. In the case of Christian parents, 18.2 per cent of them are under low level, 1.8 per cent of them are at moderate level and 80 per cent of them are at high level. In the case of Muslim parents, it is 25.7 per cent, 13.3 per cent and 61 per cent respectively.

Table 6.44

Free and Compulsory Education and its Association with Caste of Parents in Thrissur (2020)

Caste	Level of Free and Compulsory Education			Total	Chi-square Value	P value
	Low	Moderate	High			
OEC	7 (13.5%)	6 (11.5%)	39 (75%)	52 (100%)	15.556	0.016*
OBC	63 (32.8%)	30 (15.6%)	99 (51.6%)	192 (100%)		
SC/ST	6 (24%)	2 (8%)	17 (68%)	25 (100%)		
Others	14 (45.2%)	5 (16.1%)	12 (38.7%)	31 (100%)		
Total	90 (30%)	43 (14.3%)	167 (55.7%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi- Square Test

The figures within parentheses refers to Row Percentage

* denotes 5 % level significance

Hence from the analysis it is evident that low level of favourable attitude towards free and compulsory education is higher among Christians and high level of favourable attitude towards free and compulsory education is also higher among Christians and, moderate level of the same is higher among Hindu parents. Thus it is statistically proved that religion wise there are differences among parents regarding Free and Compulsory education in Kerala and majority of the parents including every religion are in favour of this policy. The perception of parents with respect to their caste is compared and the hypothesis is formulated that there is no significant

association between caste of parents and level of Free and Compulsory Education. With the help of Chi square test, the significant association between caste of parents and free and compulsory education is analysed in the Table 6.44. The P value is less than 0.05; the null hypothesis is rejected at 5 per cent level. Hence, it is interpreted that there is significant association between caste and level of free and compulsory education. On the basis of row percentage, 13.5 per cent of OEC parents have low level of favourable attitude towards free and compulsory education, 11.5 per cent of them are at moderate level and 75 per cent of them are at high level. In the case of OBC parents, it was 32.8 per cent, 15.6 per cent and 51.6 per cent respectively. In the case of SC/ST parents, 24 per cent of them are under low level, 8 per cent of them are at moderate level and 68 per cent of them are at high level. In the case of other category of parents, it is 45.2 per cent, 16.1 per cent and 38.7 per cent respectively. So, it is concluded that low level of favourable attitude towards free and compulsory education is higher among other category of parents and high level of favourable attitude towards free and compulsory education is higher among OEC parents and, moderate level of the same is higher among other category of parents. Thus it is statistically proved that caste wise there are differences among parents related to free and compulsory education. It is also clear that most of the parents are highly supporting the free and compulsory education policy of the government.

6.11.2. School Type and Free and Compulsory Education

The perception of parents with respect to the school in which their child is attending regarding free and compulsory education is compared.

Table 6.45(a)
Comparison of Free and Compulsory Education with School Type in Thrissur (2020)

Free and Compulsory Education	School type			F value	P value
	Govt.	Aided	CBSE		
	Mean and SD	Mean and SD	Mean and SD		
Gives equal opportunities for every child	2.71 (1.47)	2.62 (1.49)	3.55 (1.07)	10.872	<0.001**
Improves the education system	2.81 (1.44)	2.62 (1.48)	3.52 (1.08)	9.662	<0.001**
Improves the quality of education	2.75 (1.47)	2.62 (1.48)	3.61 (0.99)	12.217	<0.001**

Source: Computed from Primary Data

Notes: ANOVA Test

The figures within parentheses t refers to SD, ** denotes significant at 1% level.

The hypothesis is formulated that there is no significant difference among parents regarding Free and Compulsory Education. The significant difference among parents

on the basis of school types in which their child studies regarding Free and Compulsory Education is being analysed with the help of ANOVA test in the Table 6.45(a). Since P value is less than 0.01, null hypothesis is rejected at 1% level with respect to all the different dimensions of free and compulsory education like it gives equal opportunities for every child, improves the education system and improves the quality of education. As a result, there are significant differences among parents on the basis of school types in which their child is attending regarding Free and Compulsory Education. The following significant difference found among parents on the basis of school types in which their child is attending regarding free and compulsory education by using Post-hoc test in the Table 6.45 (b). Parents of government School going children are different with CBSE going children’s parents and not different with aided school children’s parents. And also parents of aided school going children are different with that of CBSE regarding the aspect of free and compulsory education as it gives equal opportunities for every child.

Table 6.45(b)
Free and Compulsory Education and School Type (Post Hoc Test) in Thrissur 2020

Free and Compulsory Education	School type (I)	School type (J)	Mean difference (I-J)	Std. error	P value
Gives equal opportunities for every child	Govt.	Aided	0.092	0.184	0.872 ^{NS}
		CBSE	-0.845	0.216	0.000 ^{**}
	Aided	CBSE	-0.937	0.211	0.000 ^{**}
Improves the education system	Govt.	Aided	0.193	0.183	0.540 ^{NS}
		CBSE	-0.714	0.215	0.003 ^{**}
	Aided	CBSE	-0.908	0.209	0.000 ^{**}
Improves the quality of education	Govt.	Aided	0.138	0.182	0.728 ^{NS}
		CBSE	-0.858	0.214	0.000 ^{**}
	Aided	CBSE	-0.996	0.208	0.000 ^{**}

Source: Computed from Primary Data

Note: 1. ** denotes significant at 1% level.

2. NS denotes non - significant.

Taking into account improving the education system, government School attending children are different with CBSE attending children and parents of aided school going children are different from those of CBSE. There are no significant differences between aided and government school types. Considering the factor of improving quality of education, there are no significant differences between government and aided school types and significant differences between government and CBSE and aided and CBSE.

On the basis of mean score and the above related factors of free and compulsory education and school type in which their child is studying, it is observed

that parents of CBSE School going children favour free and compulsory education followed by government and aided parents. According to parents of government school children the most favouring aspect of free and compulsory education is that it improves the education system. On the other hand aided school children’s parents are giving importance to all the three different dimensions of free and compulsory education and CBSE school children’s parents give importance to the dimension that it improves quality of education. Thus it can be interpreted that the mean scores for all factors are not above average level indicating the fact that parents are not completely supporting the policy, may be because they are not able to utilize it efficiently for their child. The perception of parents with respect to the type of school their child is studying is compared and the hypothesis is formulated that there is no significant association between type of school and level of Free and Compulsory Education.

Table 6.46
Free and Compulsory Education and its Association with School Type in Thrissur (2020)

School type	Level of Free and Compulsory Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Govt.	35 (32.4%)	19 (17.6%)	54 (50%)	108 (100%)	24.541	<0.001**
Aided	48 (38.7%)	18 (14.5%)	58 (46.8%)	124 (100%)		
CBSE	7 (10.3%)	6 (8.8%)	55 (80.9%)	68 (100%)		
Total	90 (30%)	43 (14.3%)	167 (55.7%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi- Square Test

The figures within parentheses refers to Row Percentage

** denotes 1 % level significance

To find out any association among parents on the basis of school type in which their child is studying and problems of school education chi square test is used in the Table 6.46. From the analysis it is seen that the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level. So, it is inferred that there is significant association between school type and free and compulsory education in Kerala. On the basis of row percentage, 32.4 per cent of government schools attending children’s parents support the policy of free and compulsory education at low level. Among them 17.6 per cent of them are at moderate level and 50 per cent of them are at high level. In the case of parents of aided school going children, it was 38.7 per cent, 14.5 per cent and 46.8 per cent respectively.

In the case of parents of CBSE School going children, 10.3 per cent of them are under low level, 8.8 per cent of them are at moderate level and 80.9 per cent of

them are at high level respectively. So, it is obvious that low level of favourable attitude among parents towards free and compulsory education is higher in the case of parents of aided school going children and high level of the same are by parents of CBSE School going children, moderate level of the same is higher among parents of Government school going children. Thus it is statistically proven that based on school type of children there are differences among parents related to free and compulsory education. It is also clear that most of the parents are much in support of the policy of free and compulsory education in Kerala.

6.11.3. Geographical Location and Free and Compulsory Education

The perception of parents with respect to the area in which they live regarding free and compulsory education is compared. The hypothesis is formulated that there is no significant difference among parents in rural and urban areas regarding Free and Compulsory Education.

Table 6.47
Free and Compulsory Education and Locality of Parents in Thrissur (2020)

Free and Compulsory Education	Locality				T value	P value
	Rural		Urban			
	Mean	SD	Mean	SD		
Gives equal opportunities for every child	2.48	1.48	3.38	1.21	-5.60	<0.001**
Improves the education system	2.60	1.47	3.28	1.27	-4.21	<0.001**
Improves the quality of education	2.61	1.48	3.27	1.27	-4.02	<0.001**

Source: Computed from Primary Data
Notes: Mean score and one sample T Test,
** denotes significant at 1% level

It is evident from the Table 6.47 that parents in rural areas do not support free and compulsory education. The mean values are below the average level concerning all the factors of free and compulsory education such as giving equal opportunities for every child (2.48) improving the education system (2.60) and improving the quality of education (2.61). In the case of parents living in urban areas the mean values are above average level, 3.38, 3.28 and 3.27 respectively. Hence, it is shown that there is significant association among parents based on the area in which they live and the free and compulsory education. It is statistically evident from the values of row percentage that, 38.4 per cent of parents living in rural areas have favourable attitude towards free and compulsory education at low level, 19.2 per cent of them are at moderate level and 42.4 per cent of them are at high level. In the case of parents living in urban areas, it was 18.8 per cent, 7.8 per cent and 73.4 per cent respectively. So, it is observed that low level of favourable attitude towards free and compulsory education are given by parents living in urban areas and high level of the same are also given by parents

living in urban areas, moderate level of the same is higher among parents living in rural areas. Thus it is statistically proved that based on the area or locality in which parents live; there are significant differences among them related to free and compulsory education. Thus there are differences in terms of the same based on the area in which they are living. So it is obvious that there are rural urban differences related to free and compulsory education, parents living in urban areas are more in favour of it than people living in rural areas.

Table 6.48

Free and Compulsory Education and its Association with Locality of Parents in Thrissur (2020)

Locality	Level of Free and Compulsory Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Rural	66 (38.4%)	33 (19.2%)	73 (42.4%)	172 (100%)	28.707	<0.001**
Urban	24 (18.8%)	10 (7.8%)	94 (73.4%)	128 (100%)		
Total	90 (30%)	43 (14.3%)	167 (55.7%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi- Square Test

The figures within parantheses refers to Row Percentage,

* **denotes 1 % level significance

The perception of parents on free and compulsory education is analysed based on the hypothesis that proportions of the level of Free and Compulsory Education is equally distributed. The level of free and compulsory education is analysed with the help of Level test. As the P value is less than 0.01, the proportions of level of free and compulsory education in Kerala is not equally distributed.

Table 6.49

The Level of Free and Compulsory Education in Thrissur District (2020)

Attribute	Low level (Q1)	Moderate level (Q2)	High level (Q3)	Total	Chi-Square value	P value
Free and compulsory education	90 (30%)	43 (14.3%)	167 (55.7%)	300 (100%)	78.380	<0.001**

Source: Computed from Primary Data

Note: ** denotes significant at 1% level.

It indicates that there are significant differences regarding free and compulsory education. From the above table 6.49, it is observed that 30 percent of parents have low level of favourable opinion towards free and compulsory education (gives equal opportunities for every child, improves the education system and improves the quality of education). Among parents 14.3 per cent have moderate level of favourable opinion towards free and compulsory education. 55.7 percent of parents have high level of

favourable opinion towards the same. So, it can be inferred that most parents have high level of favourable opinion towards the same.

6.12. Parents and Promotion Policy

The perspectives of parents on all promotion policy is analysed with the help of mean score and one sample T test and the hypothesis is formulated that there is no significant difference between the sample mean and the population mean

Table 6.50
Perspectives of Parents on All Promotion Policy in Thrissur (2020)

SI No	Factors	Mean	SD	MD	T value	P Value
1	Reduces social stigma associated with failure	2.70	1.12	-0.29	-4.56	<0.001**
2	Lowers dropout rates	2.75	1.09	-0.24	-3.88	<0.001**
3	Motivates the child	2.66	1.11	-0.33	-5.20	<0.001**

Source: Computed from Primary Data

Notes: Mean Score and One Sample T Test, Test Value: 3;

** denotes significant at 1% level

The all promotion policy of the government from the perspective of parents is analyzed with the help of mean score and one sample T test. The P value is greater than 0.05 for all the factors of all promotion policy from the perspective of parents such as it reduces social stigma associated with failure, lowers dropout rates and motivates the child. It means that the above said factors of all promotion policy from the perspective of parents are not equal to average level. The mean values show that all the factors are below average level (>3 , 3 is the test value). The factors, which reduces social stigma associated with failure, lowers dropout rates and motivates the child, are not satisfactory. Based on mean rank, it is inferred that the most preferred factor is that which lowers dropout rates, reduces social stigma associated with failure and motivates the child respectively. So it is inferred that parents are not satisfactory about the all promotion policy of government that is practiced and followed in the schools of Kerala.

6.12.1. Caste of Parents and Promotion Policy

The perspectives of parents on all promotion policy with respect to their age are compared. The hypothesis is formulated that there is no significant difference among different age group of parents regarding all Promotion Policy is analysed using ANOVA test. Since P value is greater than 0.05, the null hypothesis is accepted with regard to all the factors of All promotion Policy. Regarding all the different dimensions, there are no significant differences among different age groups. The results thus show that all the parents of the study do not give any importance to all

promotion policy regarding the above said dimensions of it. The perception of parents regarding all promotion policy on the basis of their caste is analysed with the help of ANOVA test. As the p value is less than 0.05, the null hypothesis is rejected at 5% level regarding all the factors of all promotion policy as it reduces social stigma associated with failure, lowers dropout rates and motivates the child. Therefore, it can be inferred that there are significant differences among various caste group of parents regarding all promotion policy.

Table 6.51
Comparison Between All Promotion Policy and Age of parents in Thrissur (2020)

All promotion policy	Age group			F value	P value
	31 to 40 years	41 to 50 years	Above 51years		
	Mean and SD	Mean and SD	Mean and SD		
Reduces social stigma associated with failure	2.70 (1.15)	2.68 (1.11)	2.82 (1.13)	0.208	0.812 ^{NS}
Lowers dropout rates	2.77 (1.11)	2.69 (1.09)	3.03 (1.05)	1.238	0.291 ^{NS}
Motivates the child	2.56 (1.15)	2.65 (1.09)	3.00 (1.10)	1.660	0.192 ^{NS}

Source: Computed from Primary Data

Notes: Mean Score and One Sample T Test

The figures within parentheses refers to SD

NS denotes non-significant.

There seem to be significant differences between Hindus and Muslims also regarding the same. Considering lowering the dropout rates there are significant differences between Hindus and Christians and no significant differences between Christians and Muslims and Hindus and Muslims.

Table 6.52(a)

Comparison Between All Promotion Policy and Religion of parents in Thrissur (2020)

All promotion policy	Religion			F value	P value
	Hindu	Christian	Muslim		
	Mean and SD	Mean and SD	Mean and SD		
Reduces social stigma associated with failure	2.90 (1.19)	2.47 (0.92)	2.56 (1.09)	4.211	0.016*
Lowers dropout rates	2.92 (1.15)	2.45 (0.87)	2.68 (1.09)	3.938	0.021*
Motivates the child	2.85 (1.18)	2.36 (0.84)	2.57 (1.11)	4.364	0.014*

Source: Computed from Primary Data

Notes: Mean Score and One Sample T Test

The figures within parentheses refers to SD, * denotes significant at 5% level

Concerned with the motivation of the child, there are significant differences between Hindus and Christians and no significant differences between Christians and Muslims and Hindus and Muslims. The perspectives of parents on all promotion policy with respect to their caste are compared and the hypothesis is formulated that there is no significant difference on the basis of their caste and all Promotion Policy.

On the basis of mean score and the above related factors of all promotion policy, it can be observed that other category of parents gave more importance to all the dimensions of free and compulsory education than OBC, OEC and SC/ST parents. According to OEC parents the most important aspect of all promotion policy is it motivates the child, to OBC, SC/ST and other category of parents it is lowering the dropout rates.

Table 6.52(b)

All Promotion Policy with Regard to Religion (Post Hoc Test) in Thrissur District in 2020

All Promotion Policy	Religion(I)	Religion (J)	Mean difference (I-J)	Std. error	P value
Reduces social stigma associated with failure	Hindu	Christian	0.427	0.177	0.043*
		Muslim	0.338	0.143	0.050*
	Christian	Muslim	-0.089	0.185	0.880 ^{NS}
Lowers dropout rates	Hindu	Christian	0.466	0.173	0.020*
		Muslim	0.235	0.140	0.216*
	Christian	Muslim	-0.231	0.181	0.410 ^{NS}
Motivates the child	Hindu	Christian	0.486	0.176	0.017*
		Muslim	0.278	0.142	0.127 ^{NS}
	Christian	Muslim	-0.207	0.184	0.498 ^{NS}

Source: Computed from Primary Data

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

By using Turkey HSD post hoc test, the following significant differences found among the perception of various category groups of parents regarding all promotion policy in Kerala is analysed in the Table 6.51(b).

Table 6.53(a)

Comparison Between All Promotion Policy and Caste of parents in Thrissur (2020)

All Promotion Policy	Caste				F value	P value
	OEC	OBC	SC/ST	Others		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Reduces social stigma associated with failure	2.44 (0.87)	2.77 (1.15)	2.32 (1.10)	3.03 (1.22)	3.076	0.028*
Lowers Dropout rates	2.40 (0.82)	2.79 (1.12)	2.68 (1.10)	3.12 (1.20)	3.160	0.025*
Motivates the child	2.48 (0.87)	2.67 (1.16)	2.64 (1.07)	2.93 (1.23)	1.079	0.358 ^{NS}

Source: Computed from Primary Data

Notes: ANOVA,

The figures within parentheses refers to SD

*denotes significant at 5% level,

NS denotes non-significant

OEC parents are not significantly different with OBC, SC/ST and others regarding the factor that all promotion policy it reduces social stigma associated with failure. OBC category of parents is not different with SC/ST and others and SC/ST is not different with other category of parents regarding the same factor. Considering lowering the dropout rates by all promotion policy there are significant differences

between OEC with others and no significant differences with OBC and SC/ST parents. OBC parents are not significantly different with SC/ST and others and SC/ST is not statistically different compared to others regarding the same factor. Thus it can be inferred from the analysis that there are significant differences between all these categories of parents regarding all promotion policy. With the help of Chi square test, the significant association between age of parents and level of all promotion policy is analysed.

Table 6.53(b)
All Promotion Policy with Regard to Caste (Post Hoc Test) in Thrissur District in 2020

All Promotion Policy	Religion(I)	Religion (J)	Mean difference (I-J)	Std. error	P value
Reduces social stigma associated with failure	OEC	OBC	-0.328	0.174	0.236 ^{NS}
		SC/ST	0.122	0.271	0.969 ^{NS}
		Others	-0.589	0.252	0.093 ^{NS}
	OBC	SC/ST	0.450	0.236	0.229 ^{NS}
		Others	-0.261	0.215	0.619 ^{NS}
		SC/ST	Others	-0.712	0.299
Lowers Dropout rates	OEC	OBC	-0.393	0.170	0.098 ^{NS}
		SC/ST	-0.276	0.264	0.724 ^{NS}
		Others	-0.725	0.246	0.019*
	OBC	SC/ST	0.116	0.231	0.958 ^{NS}
		Others	-0.332	0.210	0.393 ^{NS}
		SC/ST	Others	-0.449	0.292

Source: Computed from Primary Data

Notes: * denotes significant at 5% level, NS denotes non- significant.

The P value is greater than 0.05, the null hypothesis is accepted at 5 per cent level. So it is shown that there is no significant association between age of parents and all promotion policy.

Table 6.54

The Association Between Age of Parents and Level of All Promotion Policy in Thrissur (2020)

Age	Level of All Promotion Policy			Total	Chi-square Value	P value
	Low	Moderate	High			
31 to 40	44 (46.3%)	26 (27.4%)	25 (26.3%)	95 (100%)	7.181	0.127 ^{NS}
41 to 50	83 (47.2%)	47 (26.7%)	46 (26.1%)	176 (100%)		
51 and above	7 (24.1%)	14 (48.3%)	8 (27.6%)	29 (100%)		
Total	134 (44.7%)	87 (29%)	79 (26.3%)	300 (100%)		

Source: Computed from Primary Data

Note: Chi square Test,

The figures within parentheses refers to Row Percentage

* denotes 1 % level significance

On the basis of row percentage, 46.3 per cent of parents under the age group 31 to 40 years have low level of favourable opinion towards all promotion policy, 27.4 per cent of them are at moderate level and 26.3 per cent of them are at high level.

In the case of 41 to 50 age group parents, 47.2 per cent of them are under low level, 26.7 per cent of them are at moderate level and 26.1 per cent of them are at high level. Considering the age group of above 51 years, 24.1 per cent have low level, 48.3 per cent have moderate level and 27.6 per cent have high level of favourable opinion towards all promotion policy.

Table 6.55

The Association Between Religion of Parents and Level of All Promotion Policy in Thrissur (2020)

Religion	Level of All Promotion Policy			Total	Chi-square Value	P value
	Low	Moderate	High			
Hindu	49 (35%)	45 (32.1%)	46 (32.9%)	140 (100%)	15.940	0.003**
Christian	36 (65.5%)	10 (18.2%)	9 (16.4%)	55 (100%)		
Muslim	49 (46.7%)	32 (30.5%)	24 (22.9%)	105 (100%)		
Total	134 (44.7%)	87 (29%)	79 (26.3%)	300 (100%)		

Source: Computed from Primary Data

Note: 1. Chi square Test

2. The figures within parentheses refers to Row Percentage

3. **denotes 1 % level significance

So, it is evident that low level of favourable opinion towards all promotion policy is higher among 41 to 50 age group parents and high level of favourable opinion towards free and compulsory education is among 51 and above age group parents and moderate level of the same is also among 51 and above age group of parents. Parent's perception on all promotion policy with respect to their religion is compared. The hypothesis is formulated that there is no significant association between religion of parents and level of All Promotion Policy. With the help of Chi square test, the significant association between religion of parents and level of all promotion policy is analysed in the Table 6.55. It is evident that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level.

Hence, it is inferred that there is significant association between religion and level of all promotion policy. On the basis of row percentage, 35 per cent of Hindu parents are not in favour of or having low level of favourable attitude towards all promotion policy, 32.1per cent of them are at moderate level and 32.9 per cent of them are at high level. In the case of Christian parents, 65.5 per cent of them are under low level, 18.2 per cent of them are at moderate level and 16.4 per cent of them are at

high level. In the case of Muslim parents, it is 46.7 per cent, 30.5 per cent and 22.9 per cent respectively. So, it is evident that low level of favourable attitude towards all promotion policy is higher among Christians and high level of favourable attitude towards all promotion policy is higher among Hindus and, moderate level of the same is also higher among Hindu parents. Thus it is statistically proved that religion wise there are differences among parents regarding all promotion policy in Kerala and majority of the parents including every religion are not in favour of this policy of the government. Parent’s perception on all promotion policy with respect to their caste is compared. The hypothesis is formulated that there is no significant association between caste of parents and level of All Promotion Policy. With the help of Chi square test, the significant association between caste of parents and all promotion policy is analyzed in the Table 6.56. It is shown that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. Hence, it is interpreted that there is significant association between caste and level of all promotion policy.

Table 6.56
The Association Between Caste of Parents and Level of All Promotion Policy in Thrissur (2020)

Caste	Level of All Promotion Policy			Total	Chi-square Value	P value
	Low	Moderate	High			
OEC	35 (67.3%)	11 (21.2%)	6 (11.5%)	52 (100%)	22.161	0.001**
OBC	79 (41.1%)	59 (30.7%)	54 (28.1%)	192 (100%)		
SC/ST	12 (48%)	9 (36%)	4 (16%)	25 (100%)		
Others	8 (25.8%)	8 (25.8%)	15 (48.4%)	31 (100%)		
Total	134 (44.7%)	87 (29%)	79 (26.3%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi square Test

The figures within parentheses refers to Row Percentage

** denotes 1 % level significance

On the basis of row percentage, 67.3 per cent of OEC parents are having low level of favourable attitude towards all promotion policy. 21.2 per cent of them are at moderate level and 11.5 per cent of them are at high level. In the case of OBC parents, it was 41.1 per cent, 30.7 per cent and 28.1 per cent respectively. In the case of SC/ST parents, 48 per cent of them are under low level, 36 per cent of them are at moderate level and 16 per cent of them are at high level respectively. So, it can be concluded that low level of favourable attitude towards all promotion policy is higher among OEC parents and high level of favourable attitude towards all promotion policy is

higher among other category of parents and, moderate level of the same is higher among SC/ST category of parents.

6.12.2. School Type and Promotion Policy

The perception of parents on all promotion policy with respect to the type of school their child is studying is compared and the hypothesis is formulated that there is no significant association between type of school and level of all promotion policy. The significant difference among parents on the basis of school types in which their child is attending regarding Free and Compulsory Education is being analysed with the help of ANOVA test.

Table 6.57(a)
Comparison Between All Promotion Policy and School Type in Thrissur (2020)

All Promotion Policy	School Type			F value	P value
	Govt.	Aided	CBSE		
	Mean and SD	Mean and SD	Mean and SD		
Reduces social stigma associated with failure	2.83 (1.10)	2.79 (1.20)	2.32 (0.92)	5.177	0.006**
Lowers dropout rates	2.93 (1.06)	2.85 (1.18)	2.27 (0.86)	8.747	<0.001**
Motivates the child	2.83 (1.10)	2.75 (1.20)	2.22 (0.84)	7.297	0.001**

Source: Computed from Primary Data

Notes: ANOVA

The figures within parentheses refers to SD

**denotes significant at 1% level

Since P value is less than 0.01, null hypothesis is rejected at 1% level with respect to all the dimension of all promotion policy that it reduces social stigma associated with failure, lowers dropout rates and motivates the child. As a result, there are significant differences among parents on the basis of school types in which their child is studying regarding all promotion policy based on these three different dimensions. On the basis of mean score and the above related factors of all promotion policy and school type in which their child is studying, it is observed that parents of government school going children are more favouring all promotion policy comparatively followed by aided and CBSE parents respectively.

But generally speaking all parents are not favouring all promotion policy. To government and aided school children's parents the most favourable aspect of all promotion policy is that it lowers dropout rates and to CBSE school children's parents it is reducing the social stigma associated with failure. The following significant

difference is found among parents on the basis of school types in which their child is studying regarding all promotion policy on the basis of Post-hoc test. Parents of government school going children are different with CBSE going children's parents and not different with that of aided school children's parents and parents of aided school going children are different with that of CBSE regarding the factor of all promotion policy as it reduces social stigma associated with failure.

Table 6.57(b)
All Promotion Policy and School type (Post Hoc Test) in Thrissur District in 2020

All Promotion Policy	School type (I)	School type (J)	Mean difference (I-J)	Std. error	P value
Reduces social stigma associated with failure	Govt.	Aided	0.034	0.146	0.969 ^{NS}
		CBSE	0.509	0.171	0.009**
	Aided	CBSE	0.474	0.167	0.014*
		Govt.	0.080	0.141	0.837 ^{NS}
Lowers dropout rates	Govt.	Aided	0.080	0.141	0.837 ^{NS}
		CBSE	0.655	0.166	0.000**
	Aided	CBSE	0.575	0.161	0.001**
		Govt.	0.075	0.144	0.861 ^{NS}
Motivates the child	Govt.	Aided	0.075	0.144	0.861 ^{NS}
		CBSE	0.612	0.169	0.001**
	Aided	CBSE	0.537	0.165	0.004**

Source: Computed from Primary Data

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

Taking into account lowering dropout rates, government school going children are different with CBSE going children's parents and parents of aided school going children are different with that of CBSE, but there is no significant differences between aided and government school types.

Table 6.58
The Association Between School Type and Level of All Promotion Policy in Thrissur (2020)

School type	Level of All Promotion Policy			Total	Chi-square Value	P value
	Low	Moderate	High			
Govt.	38 (35.2%)	39 (36.1%)	31 (28.7%)	108 (100%)	30.601	<0.001**
Aided	46 (37.1%)	38 (30.6%)	40 (32.3%)	124 (100%)		
CBSE	50 (73.5%)	10 (14.7%)	8 (11.8%)	68 (100%)		
Total	134 (44.7%)	87 (29%)	79 (26.3%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi square Test, The figures within parentheses refers to Row Percentage, ** denotes 1 % level significance

Considering the factor of motivating the child, there are significant differences between government and CBSE school types and aided and CBSE schools and no significant differences between government and aided regarding the same factor. To find out any association among parents between school type in which their child is

studying and all promotion policy chi square tests is used in the table 6.57. From the analysis it is seen that the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level. Hence, it is obvious that there is significant association between school type and all promotion policy. On the basis of row percentage, 35.2 per cent of government school going children’s parents is supporting the policy of all promotion at low level. 36.1 per cent of them are at moderate level and 28.7 per cent of them are at high level. The level of all promotion policy in Kerala is analysed with the help of Level test. Since the P value is less than 0.01, the proportions of level of all promotion policy in Kerala are not equally distributed. It indicates that there are significant differences regarding all promotion policy in Kerala.

Table 6.59
The Level of All Promotion Policy in Thrissur District (2020)

Attribute	Low level (Q1)	Moderate level (Q2)	High level (Q3)	Total	Chi-Square value	P value
All promotion policy	134 (44.7%)	87 (29%)	79 (26.3%)	300 (100%)	17.660	<0.001**

Source: Computed from Primary Data

Notes: Level test

** denotes significant at 1% level.

From the above Table 6.59, it is observed that 44.7 per cent of parents have low level of favourable opinion towards all promotion policy (reduces social stigma associated with failure, lowers dropout rates and motivates the child), 29 per cent of parents have moderate level of favourable opinion towards it and 26.3 per cent of parents have high level of favourable opinion towards the same. So, it is inferred that most of parents have low level of favourable opinion towards all promotion policy.

6.12.3. Geographical Location and Promotion Policy

There are significant differences among parents on the basis of the area in which they are living regarding all promotion policy. Based on mean score, it is interpreted that parents living in rural areas are comparatively much in favour of all promotion policy than parents in urban areas. With the help of mean score and one sample T test the perspective of parents regarding All Promotion Policy based on the area in which they are living are analysed. Since the p value is less than 0.01, the null hypothesis is rejected at 1 per cent level with regard to all the factors of all promotion policy as it reduces social stigma associated with failure, lowers dropout rates and motivates the child. It is also statistically proved by T- test that based on the area or

locality in which parents are living they are not favouring all promotion policy. The perception of parents on all promotion policy and the area in which they are living is compared. The hypothesis is formulated that there is no significant association between locality and level of All Promotion Policy. By using Chi Square test, the significant association among parents based on the area or locality in which they are living and all promotion policy is analysed. The P value is less than 0.01; the null hypothesis is rejected at 1 per cent level.

Table 6.60

Perspectives of Parents on All Promotion Policy and Locality of Parents in Thrissur (2020)

All Promotion Policy	Locality				T value	P value
	Rural		Urban			
	Mean	SD	Mean	SD		
Reduces social stigma associated with failure	2.99	1.14	2.31	0.97	5.43	<0.001**
Lowers Dropout rates	3.04	1.10	2.35	0.96	5.61	<0.001**
Motivates the child	2.93	1.16	2.30	0.95	4.97	<0.001**

Source: Computed from primary data

Notes: Mean Score and One Sample T test , ** denotes significant at 1% level

Hence, it is interpreted that there is significant association among parents based on the area where they are living and all promotion policy. It is statistically evident from the values of row percentage that, 27.3 per cent of parents living in rural areas have favourable attitude towards all promotion policy at low level, 37.2 per cent of them are at moderate level and 35.5 per cent of them are at high level.

Table 6.61

The Association Between Locality of Parents and All Promotion Policy in Thrissur (2020)

Locality	Level of All Promotion Policy			Total	Chi-square Value	P value
	Low	Moderate	High			
Rural	47 (27.3%)	64 (37.2%)	61 (35.5%)	172 (100%)	49.274	<0.001**
Urban	87 (68%)	23 (18%)	18 (14.1%)	128 (100%)		
Total	134 (44.7%)	87 (29%)	79 (26.3%)	300 (100%)		

Source: Computed from Primary Data

Notes: Chi square Test

The figures within parentheses refers to Row Percentage

** denotes 1 % level significance

In the case of parents living in urban areas, it was 68 per cent, 18 per cent and 14.1 per cent respectively. So, it is evident that low level of favourable attitude towards all promotion policy are given by parents living in urban areas and high level of the same are given by parents living in rural areas, moderate level of the same is higher among parents living in rural areas. Thus it is statistically proved that based on

the area or locality in which parents are living; there are significant differences among them related to all promotion policy. Comparatively, parents living in rural areas are highly supporting all promotion policy and people living in urban areas are less supporting the same.

Student Satisfaction and Problems of School Education in Thrissur District: An Empirical Analysis

- 7.1. *Introduction*
- 7.2. *Student satisfaction and School Quality*
 - 7.2.1. *Gender and Student Satisfaction*
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- 7.5. *Effects of Home Environment and School Environment*
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7.1. Introduction

The satisfaction of students regarding school environment and teachers are helpful in analyzing how far they are involved with teaching learning process in schools. For a better satisfaction level from the part of students, the role played by teachers and school environment are crucial. The present study is an attempt to analyze the student satisfaction of high school and higher secondary students in the schools of Thrissur district in Kerala. Student satisfaction and feedback properly monitored can, no doubt, bring about educational quality improvement of the school. Students have, no doubt, more expectations regarding the schools in which they are

studying. It is a fact that school is regarded as the second home to every student and every teacher and school environment plays a very positive and important role in shaping and moulding students. Parents also play an important role in school education and their satisfaction levels about the schools are crucial factors in determining better educational outcome for their children. The problems from the part of parents related to the school education of their children were also important factors in determining the household characteristics of school education.

7.2. Student Satisfaction and School Quality

School students are regarded as the most responsive part of the young generation. They are, in fact, the social community capable of bringing educational innovations into the economy. Student responsiveness and good quality education lead to further social activity (Elena et.al, 2018).

Table 7.1
Student's Satisfaction in Thrissur District (2020)

SI No	Factors of student satisfaction	Mean	Standard Deviation	Mean difference	T value	P Value
1	Teaching style of teachers	2.81	1.57	-0.18	-2.92	0.004**
2	Subject competency of teachers	2.87	1.58	-0.12	-1.95	0.051 ^{NS}
3	Classroom and school environment	2.85	1.65	-0.15	-2.22	0.027*
4	Approach of teachers	2.90	1.61	-0.09	-1.41	0.159 ^{NS}
5	Infrastructure of school	2.74	1.57	-0.26	-4.03	0.000**
6	Present syllabus and curriculum	2.76	1.54	-0.23	-3.78	0.000**
7	Academic achievement	2.77	1.57	-0.22	-3.49	0.001**
8	Quality of teaching	2.87	1.63	-0.12	-1.87	0.061 ^{NS}

Source: Computed from Primary Data

Notes: Mean Score and one sample T Test

Test Value: 3; ** denotes significant at 1% level, NS denotes non-significant

Satisfaction monitoring is a good sign and inevitable process that every school has undergone to improve the integrity and quality of their institution. Student satisfaction feedback is defined as the opinions of students on the services they received as students. It may include the perceptions of students about the teaching learning process, school environment, educational process, learning support facilities

and learning environment in which they are studying. The student satisfaction about schools and teachers are analyzed with the help of mean score and one sample T test and the results are exhibited in the Table 7.1. The hypothesis is that there is no significant difference between the sample mean and the population mean. The P values are less than 0.01 for the student satisfaction factors like teaching style of teachers, infrastructure of school, present syllabus and curriculum and academic achievement. The P value is less than 0.05 for the factor of student satisfaction such as classroom and school environment. The P value is greater than 0.05 for the factors such as subject competency of teachers, approach of teachers and quality of teaching. Thus the factors of school student's satisfaction are not equal to average level. The mean values show that all the factors of student satisfaction like teaching style of teachers, subject competency of teachers, classroom and school environment, approach of teachers, infrastructure of school, present syllabus and curriculum, academic achievement and quality of teaching are below the average level (>3 , 3 is the test value). The result shows that there should be some policy intervention in schools in terms of student satisfaction for the betterment of educational outcome. On the basis of mean rank, it can be inferred that the area in which students are more satisfied is the approach of teachers. It is followed by quality of teaching, subject competency of teachers, classroom and school environment, teaching style of teachers, academic achievement, present syllabus and curriculum and the least satisfied are the school infrastructure.

7.2.1 Gender and Student Satisfaction

By using independent T test, the significant difference between male and female student's satisfaction is analyzed and presented in the Table 7.2. Students' perception on student satisfaction is compared with respect to their gender. The hypothesis is that there is no significant difference between male and female students regarding the factors of student satisfaction. The p value is less than 0.05, with respect to the factor of student satisfaction like teaching style of teachers. It indicates that there is a significant difference between male and female students regarding this factor of student satisfaction. The value is greater than 0.05 for all the other factors such as subject competency of teachers, classroom and school environment, approach of teachers, infrastructure of school, present syllabus and curriculum, academic achievement and quality of teaching.

On the basis of mean score, it indicates that there are no significant differences in the case of male and female students regarding the factors of student satisfaction. It seems that female students are more satisfied regarding all aspects except academic achievement than male students. The mean scores are high in the case of both male and female students with respect to different aspects. In the case of females they are more satisfied in the approach of teachers(3.02), subject competency of teachers (2.98), quality of teaching (2.97), classroom and school environment (2.95), teaching style of teachers (2.93), academic achievement (2.86), infrastructure of schools (2.83) and present syllabus and curriculum(2.83) respectively. In the case of male students they are more satisfied in approach of teachers (2.77), quality of teaching(2.76), subject competency of teachers (2.75), classroom and school environment (2.72), present syllabus and curriculum (2.67), teaching style of teachers (2.66) and infrastructure of schools (2.63) respectively. So, from the mean values it is obvious that the satisfaction level of both genders is below the average value indicating the importance of improvement in the school and teacher related factors in schools. It is also evident that compared to male students, female students have high level of satisfaction.

Table 7.2
Male and Female Student’s Satisfaction in Thrissur District (2020)

Factors of students satisfaction	Gender of the students				T value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Teaching style of teachers	2.66	1.51	2.93	1.61	-2.10	0.036*
Subject competency of teachers	2.75	1.53	2.98	1.62	-1.75	0.080 ^{NS}
Classroom and school environment	2.72	1.60	2.95	1.68	-1.70	0.089 ^{NS}
Approach of teachers	2.77	1.55	3.02	1.66	-1.84	0.065 ^{NS}
Infrastructure of school	2.63	1.52	2.83	1.62	-1.56	0.118 ^{NS}
Present syllabus and curriculum	2.67	1.51	2.83	1.56	-1.23	0.217 ^{NS}
Academic achievement	2.67	1.54	2.86	1.59	-1.40	0.160 ^{NS}
Quality of teaching	2.76	1.57	2.97	1.67	-1.58	0.114 ^{NS}

Source: Computed from Primary Data.

Notes: Mean Score and Independent T Test, * denotes significant at 5% level
NS denotes non-significant

7.2.2. Student Satisfaction and Age

With the help of T test, differences between age group of students and the factors of student satisfaction are analyzed and presented in the Table 7.3. Students' perception on student satisfaction is compared with respect to their age. The hypothesis is formulated that there is no significant difference between male and female students regarding the factors of student satisfaction.

It is estimated that the P values are higher than 0.05 for all the factors of student satisfaction and the hypothesis is accepted. The factors of student satisfaction are teaching style of teachers, subject competency of teachers, classroom and school environment, approach of teachers, infrastructure of school, present syllabus and curriculum, academic achievement and quality of teaching. It indicates that there are no significant differences between 14 to 15 and 16 to 18 age group of students regarding these factors of student satisfaction. It means both age groups of student satisfaction are almost same. On the basis of mean score, it seems that students of 14 to 15 age groups are more satisfied in listening classes properly and attention in class than the 16 to 18 age group.

Table 7.3
Age Group and Students' Satisfaction in Thrissur District (2020)

Factors of students satisfaction	Age of the students				T value	P value
	14 to 15 Years		16 to 18 Years			
	Mean	SD	Mean	SD		
Teaching style of teachers	2.82	1.62	2.79	1.51	0.24	0.810 ^{NS}
Subject competency of teachers	2.90	1.63	2.84	1.53	0.45	0.651 ^{NS}
Classroom and school environment	2.88	1.67	2.80	1.62	0.60	0.543 ^{NS}
Approach of teachers	2.91	1.65	2.89	1.58	0.20	0.838 ^{NS}
Infrastructure of school	2.79	1.61	2.67	1.53	0.86	0.386 ^{NS}
Present syllabus and curriculum	2.82	1.59	2.68	1.48	1.10	0.272 ^{NS}
Academic achievement	2.81	1.61	2.73	1.52	0.59	0.552 ^{NS}
Quality of teaching	2.89	1.65	2.85	1.59	0.31	0.754 ^{NS}

Source: Computed from Primary Data.

Notes: Mean Score and T Test

NS denotes non -significant

The 14 to 15 age group of students are more satisfied in the approach of teachers (2.91), subject competency of teachers (2.90), quality of teaching (2.89), classroom and school environment (2.88), present syllabus and curriculum (2.82), teaching style of teachers (2.82), academic achievement (2.81) and infrastructure of school (2.79). In the case of 16 to 18 age group, they are more satisfied with respect to the factors like approach of teachers (2.89), quality of teaching (2.85), subject competency of teachers (2.84), classroom and school environment (2.80), teaching style of teachers (2.79), academic achievement (2.73), present syllabus and curriculum (2.68) and infrastructure of school (2.67). But there are no significant differences with respect to all the factors of student satisfaction of all the age groups. It seems that the least satisfied with respect to all age groups and all gender are infrastructure of school.

Student satisfaction are also analysed with the help of Level test based on the hypothesis that Proportions of the level of students satisfaction in school education in Thrissur is equally distributed (Table 7.4). The level of students' satisfaction about schools and teachers in school education in Thrissur is analyzed with the help of Level test. As the P value is greater than 0.05, the proportions of level of students satisfaction in learning in school education in Thrissur is equally distributed. It indicates that there is no significant difference with respect to the level of students' satisfaction in learning in school education.

Table 7.4

Level of Student's Satisfaction in School Education in Thrissur (2020)

Attribute	Low level (Q1)	Moderate level (Q2)	High level (Q3)	Total	Chi-Square value	P value
level of students satisfaction	209 (34.8%)	183 (30.5%)	208 (34.7)	600 (100%)	2.170	0.338 ^{NS}

Source: Computed from Primary Data

Notes: Level Test, NS Denotes non- significant.

From the Table 7.4, it is observed that 34.8 per cent of students have low level of student satisfaction (Teaching style of teachers, subject competency of teachers, classroom and school environment, approach of teachers, infrastructure of school, present syllabus and curriculum, academic achievement and quality of teaching). It is

seen that 30.5% percent of students are moderately satisfied in learning and 34.7 percent of students are highly satisfied in their learning.

Table 7.5

Gender and Level of Students' Satisfaction in Thrissur (2020)

Gender	Level of satisfaction			Total	Chi-square Value	P value
	Low level	Moderate level	High level			
Boy	99 (34.9%)	96 (33.8%)	89 (31.3%)	284 (100%)	3.652	0.161 ^{NS}
Girl	110 (34.8%)	87 (27.5%)	119 (37.7%)	316 (100%)		
Total	209 (34.8%)	183 (30.5%)	208 (34.7%)	600 (100%)		

Source: Compiled from Primary Data

Notes: Chi Square Test, The values in parenthesis refer to row percentage

NS denotes Non-Significance

So, it is obvious that students are not fully satisfied by their learning indicated by the comparative low level of differences between low level and high level of student satisfaction. The level of students' perception on student satisfaction with respect to gender of students is compared and analysed with the help of Chi Square test. The hypothesis is formed that there is no significant association between gender and level of students' satisfaction in learning. It is inferred from the Table 7.5 that the Since P value is greater than 0.05, the null hypothesis is accepted at 5 per cent level. So, it seems that there is no significant association between gender of students and their satisfaction in learning. On the basis of row percentage, 34.9 per cent of male students have low level of satisfaction in learning, 33.8 per cent of them are at moderate level and 31.3 per cent of them are at high level. In the case of female students, 34.8 per cent of them are under low level, 27.5 per cent of them are at moderate level and 37.7 per cent of them are at high level (Table 7.5).

Thus it is obvious that low level of student satisfaction in learning is higher among male students and high level of student satisfaction in learning is among female students and moderate level of the same is higher among male students. The study also statistically proves that high level of student satisfaction is among female students. These differences are not significant and there are no differences with respect to gender and student satisfaction in learning.

Table 7.6

Age and Level of Students' Satisfaction in Thrissur (2020)

Age	Level of satisfaction			Total	Chi-square Value	P value
	Low level	Moderate level	High level			
14 to 15 years	120 (37.3%)	78 (24.2%)	124 (38.5%)	322 (100%)	13.118	0.001**
16 to 20 years	89 (32%)	105 (37.8%)	84 (30.2%)	278 (100%)		
Total	209 (34.8%)	183 (30.5%)	208 (34.7%)	600 (100%)		

Source: Computed from Primary Data

Notes: .Chi square Test

The figure within parentheses refers row percentage

NS denotes Non-Significance

Students' perception on student satisfaction with respect to their age is compared and the hypothesis is formulated that there is no significant association between age and level of students' satisfaction. The association between age and level of students' satisfaction is analyzed with the help of Chi Square test. It is analyzed from the Table 7.6 that the P value is less than 0.01 and the null hypothesis is rejected at 1 per cent level. So there are significant association between age and level of students' satisfaction in schools in Thrissur. It is evident from the Table 7.6 that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. Hence, it is inferred that there are significant association between age and level of students' satisfaction in schools. On the basis of row percentage, 37.3 per cent of students under the age group 14 to 15 years are satisfied by their learning at low level, 24.2 per cent of them are at moderate level and 38.5 per cent of them are at high level.

In the case of 16-18 years of age group students, 32 per cent of them are under low level, 37.8 per cent of them are at moderate level and 30.2 % of them are high level. So, it is obvious that low level (37.3%) and high level (38.5%) of students' satisfaction in learning is higher among 14 to 15 age group students. At the same time, moderate level (37.8%) of student's satisfaction in learning is higher among 16 to 18 age groups of students. It reveals that students' satisfaction in learning is more among 14-15 age group students.

7.3. Parental Satisfaction and School Quality

Parent’s role in the school environment also plays an important and inevitable role in the educational attainment of their child. They have high expectations regarding their child’s education (Kumar, et.al, 2014).

Table 7.7
Quality of Education from the Perspective of Parents in Thrissur District (2020)

SI No	Factors of Quality of Education (Parents’ perspective)	Mean	Standard Deviation	Mean difference	T value	P Value
1	Strong students teacher relationship	2.82	1.40	-0.17	-2.17	0.030*
2	Better feedback system	3.07	1.29	0.07	0.97	0.329 ^{NS}
3	Regular Updating of syllabus and curriculum	2.77	1.20	-0.22	-3.20	0.002**
4	Extra-Curricular activities	2.93	1.34	-0.06	-0.81	0.417 ^{NS}
5	Good IT infrastructure	2.98	1.30	-0.01	-0.22	0.825 ^{NS}
6	Parents involvement in school activities	2.98	1.30	-0.01	-0.17	0.860 ^{NS}
7	PTA Meeting	2.66	1.43	-0.33	-4.02	<0.001**

Source: Computed from Primary Data

Notes: Mean Score and One Sample T Test

Test Value: 3; ** denotes significant at 1% level

The study analysed the satisfaction of parents about the quality of the schools in which their children attend by using mean score and one sample T test. The hypothesis is formulated that there is no significant difference between the sample mean and the population mean. The quality of education from the perspective of parents is analyzed with the help of mean score and one sample T Test in the Table 7.7. The P values are less than 0.01 for the factors of quality of education provided by schools from the perspective of parents such as regular updating of syllabus and curriculum and PTA Meeting held at schools. The P value is less than 0.05 for the factor like strong student teacher relationship. The P value is greater than 0.05 for the other factors of quality of education such as better feedback system, extra-curricular activities, good IT infrastructure and parents involvement in school activities.

It indicates that the factors of quality of education provided by schools from the perspective of parents are not equal to average level. The mean values show that all the factors are below average level except better feedback system (>3, 3 is the test value). The analysis shows that the factors such as strong student teacher relationship, regular updating of syllabus and curriculum, extra-curricular activities, good IT

infrastructure, parents involvement in school activities and PTA meeting provided by schools are not satisfactory. The most preferred factor is better feedback system followed by good IT infrastructure, parent’s involvement in school activities, strong student teacher relationship, regular updating of syllabus and curriculum and PTA meeting respectively. So it is obvious that from the point of view of parent’s quality of education provided by schools are not satisfactory.

7.3.1. Quality of Education and Age of Parents

The perception of parents on quality of education with respect to their age is analyzed using ANOVA test is presented in the Table 7.8 (a).

Table 7.8 (a)
Quality of Education from Parents’ Perspective on the Basis of Age in Thrissur District (2020)

Factors of Quality of Education (Parents perspective)	Age groups of parents			F value	P value
	31 to 40 years	41 to 50 years	Above 51 years		
	Mean and SD	Mean and SD	Mean and SD		
Strong students teacher relationship	2.54 (1.44)	2.97 (1.36)	2.82 (1.41)	2.850	0.059 ^{NS}
Better feedback system	2.78 (1.39)	3.30 (1.17)	2.58 (1.37)	7.462	<0.001**
Regular Updating of syllabus and curriculum	2.61 (1.25)	2.86 (1.15)	2.75 (1.35)	1.424	0.242 ^{NS}
Extra-Curricular activities	2.63 (1.42)	3.07 (1.28)	3.10 (1.34)	3.626	0.028*
Good IT infrastructure	3.00 (1.34)	3.01 (1.28)	2.75 (1.32)	0.475	0.622 ^{NS}
Parents involvement in school activities	2.73 (1.40)	3.11 (1.23)	3.00 (1.33)	2.667	0.071 ^{NS}
PTA Meeting	2.37 (1.45)	2.89 (1.38)	2.20 (1.42)	5.875	0.003**

Source: Computed from Primary Data.

** denotes significant at 1% level, *denotes significant at 5% level
NS denotes non-significant, Figures in parentheses show SD.

The hypothesis is formulated that there is no significant difference among different age group of parents with respect to dimensions of quality of education. Since P value is less than 0.01, null hypothesis is rejected at 1% level with respect to the dimensions of quality of education such as better feedback system and PTA meeting. As a result, there are significant differences among different age group of parents about these factors of quality of education provided by the schools. Since the P value is less than 0.05, the null hypothesis is rejected at 5% level with respect to the factor extracurricular activities. Therefore, it seems that there is significant difference among various age groups of parents with respect to this factor of quality of education.

Since P value is greater than 0.05, the null hypothesis is accepted with regard to the factors of parents perception of quality of education in schools about the factors of quality of school education such as, strong students teacher relationship, regular updating of syllabus and curriculum, good IT infrastructure and parents involvement in school activities. It shows that all age groups of parents under study have same opinion about these factors of quality of school education.

Table 7.8(b)

Factors of Quality of Education from Parents' Perspective Based on Age in Thrissur 2020 (Post Hoc Test)

Factors	Age (I)	Age (J)	Mean difference (I-J)	Std. error	P value
Better feedback system	31 to 40	41 to 50	-0.517	0.161	0.004**
		51 and above	0.203	0.269	0.732 ^{NS}
	41 to 50	51 and above	0.720	0.254	0.014*
Extra-Curricular activities	31 to 40	41 to 50	-0.442	0.170	0.027*
		51 and above	-0.471	0.283	0.221 ^{NS}
	41 to 50	51 and above	-0.029	0.267	0.993 ^{NS}
PTA Meeting	31 to 40	41 to 50	-0.518	0.179	0.012*
		51 and above	0.172	0.299	0.834 ^{NS}
	41 to 50	51 and above	0.690	0.282	0.040*

Source: Computed from Primary Data

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

NS denotes non-significant.

Based on Turkey HSD post hoc test, the following significant difference found among the perception of various age groups of parents regarding the factors of quality of education (Table 7.8 (b)). Parents in the age group of 31 to 40 are significantly differed from 41 to 50 age of group of parents with respect to the factor better feedback system and 41 to 50 aged parents are significantly differed from 51 and above age group regarding the same factor. Parents in the age group of 31 to 40 are significantly differed from 41 to 50 age of group of parents about the factor extra-curricular activities. The perception of 31 to 40 age group of parents are significantly differed from 41 to 50 age group of parents regarding the factor like PTA Meeting and 41 to 50 age group is significantly differed from 51 and above age group about the same.

On the basis of mean score, it is observed that, 41 to 50 age group of parents have better opinion regarding students' feedback system existing in the school than 31 to 40 age of parents and above 51 age group of parents. As per the opinion of 31 to 40 and above 51 age group of parents, schools do not have better students' feedback

system. 41 to 50 age group of parents have better opinion regarding extracurricular activities of the schools than 31 to 40 age group of parents. In the case of PTA meeting of the schools, no parents have better opinion. Their opinion regarding PTA meeting is below average. Comparatively, 41 to 50 age groups of parents have better opinion regarding PTA meeting conducted by the schools than 31 to 40 age groups of parents and above 51 age groups of parents. Thus it is obvious that quality of education provided by schools is not satisfactory indicating the importance of structural reforms.

Table 7.9
Age of Parents and Level of Quality of Education in Thrissur District in 2020

Age	Level of Quality of Education			Total	Chi-square Value	P value
	Low	Moderate	High			
31 to 40	32 (33.7%)	36 (37.9%)	27 (28.4%)	95 (100%)	7.634	0.106 ^{NS}
41 to 50	34 (19.3%)	76 (43.2%)	66 (37.5%)	176 (100%)		
51 and above	9 (31%)	11 (37.9%)	9 (31%)	29 (100%)		
Total	75 (25%)	123 (41%)	102 (34%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test

The figures within parentheses refers to Row Percentage

NS denotes non-significant.

The perception of parents on quality of education with respect to their age is compared and analyzed using Chi square test is presented in Table 7.9. The hypothesis is formulated that there is no significant association between age of parents and level of quality of education. The P value is greater than 0.05, the null hypothesis is accepted at 5 per cent level. Hence, it indicates that there is no significant association between age of parents and quality of education provided by schools in Kerala.

On the basis of row percentage, 33.7 per cent of parents under the age group 31 to 40 years have low level of favourable opinion towards quality of education, 37.9 per cent of them are at moderate level and 28.4 per cent of them are at high level. In the case of 41 to 50 age group parents, 19.3 per cent of them are under low level, 43.2 per cent of them are at moderate level and 37.5 per cent of them are at high level. Considering the age group of more than 51, 31 per cent have low level, 37.9 per cent

have moderate level and 31 per cent have high level of favourable attitude towards quality of education. So, it hints that low level of quality of education is higher among 31 to 40 age group parents and high level of quality of education is among 41 to 50 age group parents and moderate level and it is higher among 41 to 50 age groups.

7.3.2. Religion of Parents and Quality of Education

The perception of parents on quality of education with respect to their religion is analyzed using ANOVA test is presented in the Table 7.10(a).

Table 7.10(a)
Quality of Education from Parents Perspective Based on Religion in Thrissur in 2020

Quality of education	Caste group			F value	P value
	Hindu	Christian	Muslim		
	Mean and SD	Mean and SD	Mean and SD		
Strong students teacher relationship	2.45 (1.44)	3.45 (1.11)	2.98 (1.34)	11.768	<0.001**
Better feedback system	2.87 (1.39)	3.43 (1.11)	3.14 (1.21)	3.949	0.020*
Regular Updating of syllabus and curriculum	2.79 (1.30)	2.65 (1.07)	2.81 (1.14)	0.357	0.700 ^{NS}
Extra-Curricular activities	2.70 (1.41)	3.32 (1.15)	3.04 (1.29)	4.945	0.008**
Good IT infrastructure	2.70 (1.37)	3.34 (1.10)	3.16 (1.24)	6.441	0.002**
Parents involvement in school activities	2.74 (1.41)	3.49 (0.95)	3.04 (1.25)	6.889	0.001**
PTA Meeting	2.24 (1.42)	3.29 (1.21)	2.90 (1.39)	13.877	<0.001**

Source: Computed from primary Data.

Notes: ANOVA Test, the figures within parentheses refers to SD,

** denotes significant at 1% level,

*denotes significant at 5% level,

NS denotes non-significant.

The hypothesis is formulated that there is no significant difference among different parents on the basis of their religion with respect to different dimensions of quality of education. The P value is less than 0.01, null hypothesis is rejected at 1% level with respect to dimensions of quality of education like strong student-teacher relationship, extra-curricular activities, good IT infrastructure, parents involvement in school activities and PTA meetings held at schools. As a result, there are significant differences among different category group of parents regarding these aspects of quality of education. The P value is less than 0.05 for the factor such as better feedback system and the null hypothesis is rejected. There are significant differences among parents with respect to this factor. Since P value is greater than 0.05, the null hypothesis is accepted with regard to the factor of quality of education like regular

updating of syllabus and curriculum. Thus different category group of parents have shown different opinions regarding the five dimensions of quality of education and not different with respect to the one dimension of quality of education. By using Turkey HSD post hoc test, the following significant difference found among the perception of various caste groups of parents about the factors of quality of education is presented in the Table 7.10 (b).

Table 7.10(b)

Factors of Quality of Education from Parents Perspective Based on Religion in Thrissur 2020

Quality of Education	Religion(I)	Religion (J)	Mean difference (I-J)	Std. error	P value
Strong students teacher relationship	Hindu	Christian	-0.557	0.204	0.019*
		Muslim	-0.264	0.166	0.251 ^{NS}
	Christian	Muslim	0.293	0.214	0.357 ^{NS}
Better feedback system	Hindu	Christian	0.138	0.192	0.753 ^{NS}
		Muslim	-0.026	0.156	0.985 ^{NS}
	Christian	Muslim	-0.164	0.201	0.693 ^{NS}
Extra-Curricular activities	Hindu	Christian	-0.627	0.211	0.009**
		Muslim	-0.347	0.171	0.109 ^{NS}
	Christian	Muslim	0.279	0.221	0.418 ^{NS}
Good IT infrastructure	Hindu	Christian	-0.638	0.204	0.006**
		Muslim	-0.454	0.165	0.018*
	Christian	Muslim	0.183	0.213	0.667 ^{NS}
Parents involvement in school activities	Hindu	Christian	-0.748	0.204	0.001**
		Muslim	-0.304	0.165	0.159 ^{NS}
	Christian	Muslim	0.443	0.213	0.097 ^{NS}
PTA meeting	Hindu	Christian	-1.048	0.218	0.000**
		Muslim	-0.661	0.177	0.001**
	Christian	Muslim	0.386	0.229	0.212 ^{NS}

Source: Computed from Primary Data

Notes: ** denotes significant at 1% level

* denotes significant at 5% level

Hindu parents are significantly different from Christian parents about the factor strong student teacher relationship and not different with Muslims and Christian parents and not showed a significant difference with Muslim parents regarding the same factor. Considering the factor, better feedback system, Hindu parents are not significantly different from Christian and Muslim parents and no difference between Christians and Muslims. Regarding the factor extra-curricular activities in schools, Hindu parents have significantly differed from Christian parents and not different with Muslims and Christian parents did not show a significant difference with Muslim parents.

On account of the factor good infrastructure in schools, Hindu parents are significantly differed from Christian parents and not different with Muslims and

Christian parents have not shown a significant difference with Muslim parents. Considering the factor, parent’s involvement in school activities also the same trend is seen among parents like the factor good IT infrastructure. In the case of PTA meeting held at schools, Hindu parents are significantly differed from Christian and Muslim parents and no difference between Christians and Muslims in this regard.

Table 7.11

Religion of Parents and Level of Quality of Education in Thrissur District (2020)

Religion	Level of Quality of Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Hindu	51 (36.4%)	54 (38.6%)	35 (25%)	140 (100%)	13.474	0.009**
Christian	8 (14.5%)	32 (58.2%)	15 (27.3%)	55 (100%)		
Muslim	22 (21%)	51 (48.6%)	32 (30.5%)	105 (100%)		
Total	81 (27%)	137 (45.7%)	82 (27.3%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test, The figures within parentheses refer to Row Percentage

NS denotes non-significant.

On the basis of mean scores, it seems that Christian parents are more satisfied by the quality of education provided by schools followed by Muslim and Hindu parents. Hindu parents are more satisfied by the better feedback system of schools, Christians are more satisfied by the parent’s involvement in school activities and Muslim parents are more satisfied by the good IT infrastructure in schools. It is also inferred that parents are not much satisfied by the quality of education provided by schools. The perception of parents on quality of education with respect to their religion is compared and analyzed using Chi square test and the hypothesis is formulated that there is no significant association between religion of parents and level of Quality of Education. With the help of Chi square test, the significant association between religion of parents and level of quality of education and results are presented in Table 7.11. It is statistically proved that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. So, it seems that that there is significant association between religion and level of quality of education. On the basis of row percentage, 36.4 per cent of Hindu parents are not satisfied by the quality of education provided by schools. 38.6 per cent of them are at moderate level and 25 per cent of them are at high level. In the case of Christian parents, 14.5 per cent of them are under low level, 58.2 per cent of them are at moderate level and 27.3 per cent of them are at high level. In the case of Muslim parents, it is 21 per cent, 48.6 per cent

and 30.5 per cent respectively. Therefore, it is identified that low level of satisfaction towards quality of education is higher among Hindus and high level of satisfaction towards quality of education is higher among Muslim parents and, moderate level of the same is higher among Christians. Thus it is statistically proved that religion wise there are differences among parents regarding quality of education provided by schools.

7.3.3. Quality of Education and Caste of Parents

The perception of parents concerning quality of education provided by schools on the basis of different caste groups is presented in the Table 7.12(a).

Table 7.12(a)

Quality of Education from Parents Perspective Based on Caste in Thrissur in 2020

Quality of Education	Category				F value	P value
	OEC	OBC	SC/ST	Others		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Strong students teacher relationship	3.51 (1.03)	2.64 (1.43)	2.92 (1.32)	2.67 (1.49)	5.685	0.001**
Better feedback system	3.65 (0.90)	2.98 (1.32)	2.76 (1.33)	2.90 (1.44)	4.584	0.004**
Regular Updating of syllabus and curriculum	2.67 (1.07)	2.81 (1.22)	2.88 (1.12)	2.61 (1.40)	0.450	0.717 ^{NS}
Extra-Curricular activities	3.57 (0.91)	2.88 (1.38)	2.72 (1.24)	2.38 (1.49)	6.264	<0.001**
Good IT infrastructure	3.51 (0.93)	2.91 (1.34)	2.60 (1.29)	2.83 (1.43)	4.071	0.007**
Parents involvement in school activities	3.32 (1.09)	2.92 (1.34)	2.80 (1.22)	2.96 (1.40)	1.508	0.212 ^{NS}
PTA Meeting	3.48 (1.05)	2.52 (1.45)	2.36 (1.28)	2.45 (1.52)	7.298	<0.001**

Source: Computed from primary Data.

Notes: ANOVA Test, The value within bracket refers to SD, ** denotes significant at 1% level, NS denotes non-significant.

The P value is less than 0.01, null hypothesis is rejected at 1% level with respect to dimensions of quality of education like strong student- teacher relationship, better feedback system, extra-curricular activities, good IT infrastructure and PTA meetings held at schools. As a result, there are significant differences among different category group of parents regarding these aspects of quality of education. Since P value is greater than 0.05, the null hypothesis is accepted with regard to the factors of quality of education like regular updating of syllabus and curriculum and parents involvement in school activities.

Table 7.12(b)

Factors of Quality of Education from Parents Perspective Based on Caste in Thrissur 2020

Quality of Education	Religion(I)	Religion (J)	Mean difference (I-J)	Std. error	P value
Strong students teacher relationship	OEC	OBC	0.873	0.214	0.000**
		SC/ST	0.599	0.334	0.278 ^{NS}
		Others	0.841	0.311	0.036*
	OBC	SC/ST	-0.274	0.291	0.784 ^{NS}
		Others	-0.031	0.265	0.999 ^{NS}
		SC/ST	0.242	0.368	0.913 ^{NS}
Better feedback system	OEC	OBC	0.669	0.199	0.005**
		SC/ST	0.893	0.310	0.022*
		Others	0.750	0.289	0.049*
	OBC	SC/ST	0.224	0.271	0.842 ^{NS}
		Others	0.081	0.247	0.988 ^{NS}
		SC/ST	-0.143	0.343	0.975 ^{NS}
Extra-Curricular activities	OEC	OBC	0.696	0.205	0.004**
		SC/ST	0.856	0.319	0.039*
		Others	1.189	0.298	0.000**
	OBC	SC/ST	0.160	0.279	0.940 ^{NS}
		Others	0.493	0.254	0.214 ^{NS}
		SC/ST	0.332	0.353	0.782 ^{NS}
Good IT infrastructure	OEC	OBC	0.607	0.201	0.015*
		SC/ST	0.919	0.313	0.019*
		Others	0.680	0.292	0.094 ^{NS}
	OBC	SC/ST	0.311	0.273	0.666 ^{NS}
		Others	0.072	0.249	0.991 ^{NS}
		SC/ST	-0.238	0.346	0.901 ^{NS}
PTA Meeting	OEC	OBC	0.959	0.217	0.000**
		SC/ST	1.120	0.338	0.006**
		Others	1.029	0.315	0.007**
	OBC	SC/ST	0.160	0.295	0.948 ^{NS}
		Others	0.069	0.269	0.994 ^{NS}
		SC/ST	-0.091	0.373	0.995 ^{NS}

Source: Computed from primary Data.

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

NS denotes non- significant

Thus it shows that different caste groups have shown different perceptions regarding quality of education except regular updating of syllabus and curriculum. The perception of various caste groups of parents regarding the factors of quality of education is presented in the Table 7.12 (b). It is evident from the analysis that except OEC category of parents, other categories have not shown a positive approach towards the quality of education provided by the schools. The significant difference found among the perception of various category groups of parents on the basis of Post-hoc test regarding quality of education in Kerala. OEC parents are significantly different from OBC parents and other category of parents regarding the factor that

schools provide strong student teacher relationship and do not show a significant difference with SC/ST parents regarding the same factor.

Table 7.13

Caste of Parents and Level of Quality of Education in Thrissur District in 2020

Caste	Level of Quality of education			Total	Chi- quare Value	P value
	Low	Moderate	High			
OEC	5 (9.6%)	17 (32.7%)	30 (57.7%)	52 (100%)	24.160	<0.001**
OBC	54 (28.1%)	76 (39.6%)	62 (32.3%)	192 (100%)		
SC/ST	6 (24%)	16 (64%)	3 (12%)	25 (100%)		
Others	10 (32.3%)	14 (45.2%)	7 (22.6%)	31 (100%)		
Total	75 (25%)	123 (41%)	102 (34%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test

The figures within parentheses refers to Row Percentage

** denotes significant at 1% level.

OBC parents are not significantly different from SC/ST and others and SC/ST parents are not significantly different from others about the same factor. On account of the better feedback system provided by schools, there are significant differences between OEC with OBC, SC/ST and others. OBC parents are not significantly different from SC/ST and others and SC/ST is not statistically different from others regarding the same factor. Regarding extra-curricular activities provided by schools, there are significant differences between OEC with OBC, SC/ST and others. OBC category of parents is not significantly different from SC/ST and others. SC/ ST category of parents are not significantly different from other categories regarding the same factor. OEC parents are significantly different from OBC and SC/ST parents and not significantly different from other category of parents considering the factor of good IT infrastructure provided by schools.

OBC parents are not different from SC/ST and others and SC/ST is not different from other categories regarding the same factor. On account of PTA meetings held at schools, OEC are different from OBC, SC/ST and other category of parents. OBC category of parents is not significantly different with SC/ST and others, and SC/ST parents are not different from other category of parents regarding the same. On the basis of mean score and the above related factors of quality of education, it is observed that OEC parents are more satisfied with all the dimensions quality of

education in schools. It is also statistically proved that all the other categories of parents including OBC, SC/ST and others are not that much satisfied by the quality of education provided by schools compared to OEC category of parents. So it is evident from the analysis that at quality of education provided by schools to be improved.

The perception of parents on quality of education with respect to their caste is compared and analyzed using Chi square test and the hypothesis is formulated that there is no significant association between caste of parents and level of Quality of Education. With the help of Chi square test, the significant association between caste of parents and level of quality of education is analysed and results are presented in the Table 7.13. It is clear that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. Hence, it is interpreted that there is significant association between caste and level of quality of education provided by schools in Kerala.

On the basis of row percentage, 9.6 per cent of OEC parents have low level of favourable attitude towards quality of education provided by schools. It is evident that 32.7 per cent of them are at moderate level and 57.7 per cent of them are at high level. In the case of OBC parents, it was 28.1 per cent, 39.6 per cent and 32.3 per cent respectively. In the case of SC/ST parents, 24 per cent of them are under low level, 64 per cent of them are at moderate level and 12 per cent of them are at high level. In the case of other category of parents, it is 32.3 per cent, 45.2 per cent and 22.6 per cent respectively. So, it can be concluded that low level of favourable attitude towards quality of education is higher among other category of parents and high level of favourable attitude towards quality of education is higher among OEC and, moderate level of the same is higher among SC/ST parents. Thus it is statistically proven that caste wise there are differences among parents regarding quality of education provided by schools in Kerala.

7.3.4. Quality of Education and Class

The perception of parents on quality of education with respect to class in which their child is studying is compared and analyzed using ANOVA test and results are presented in the Table 7.14(a). The hypothesis is formulated that there is no significant difference among different parents on the basis of class their child is studying and different dimensions of quality of education. Since P value is less than 0.01, null hypothesis is rejected at 1% level with respect to the dimension of quality of education like extracurricular activities and PTA meeting held at schools. As a

result, there are significant differences among parents on the basis of class-wise in which their child is studying about these aspects of quality of education.

Table 7.14(a)
Quality of Education from Parents Perspective Based on Class wise in Thrissur in 2020

Quality of Education	Class Group			F value	P value
	9 th STD	10 th STD	Plus Two		
	Mean and SD	Mean and SD	Mean and SD		
Strong students teacher relationship	2.67 (1.47)	3.00 (1.32)	2.79 (1.41)	1.416	0.244 ^{NS}
Better Feedback System	2.88 (1.40)	3.27 (1.18)	3.06 (1.27)	1.321	0.100 ^{NS}
Regular Updating of syllabus and curriculum	2.77 (1.32)	2.67 (1.11)	2.89 (1.17)	0.747	0.475 ^{NS}
Extracurricular activities	2.68 (1.47)	3.35 (1.11)	2.75 (1.33)	8.125	<0.001 ^{**}
Good IT Infrastructure	2.78 (1.44)	3.29 (1.12)	2.86 (1.27)	4.571	0.011 [*]
Parents involvement in school activities	2.74 (1.42)	3.19 (1.17)	3.03 (1.27)	3.222	0.041 [*]
PTA meeting	2.38 (1.47)	3.11 (1.28)	2.48 (1.43)	8.240	<0.001 ^{**}

Source: Computed from primary Data.

Notes: ANOVA Test. The figures within parentheses refers to SD

** denotes significant at 1% level.

NS denotes non-significant.

Since the p value is less than 0.05, the null hypothesis is rejected at 5% level about the factors of quality of education like good IT Infrastructure and parents involvement in school activities. Therefore, it seems that there are significant differences among parents on the basis of class wise in which their child is studying concerning quality of education on the above said factors. Since the p value is less than 0.05, the null hypothesis is rejected at 5% level regarding the factors of quality of education like good IT Infrastructure and parents involvement in school activities. Therefore, it indicates that there are significant differences among parents on the basis of class wise their child is studying about quality of education on the above said factors. Since P value is greater than 0.05, the null hypothesis is accepted with regard to the factors of quality of education like strong student teacher relationship, better feedback system and regular updating of syllabus and curriculum. There are no significant differences among parents concerning these factors of quality of education.

By using the Post Hoc test the significant differences on the basis of class-wise results are presented in the Table 7.14 (b). In the case of the factor, extracurricular activities, parents of 9th standard children are different from those that of 10th standard and not different from plus two children's parents. It is also seen that parents of 10th standard children are different from those of plus two students.

Concerning the factor, good IT infrastructure, parents of 9th standard children are different from those of 10th standard and not different with plus two children's parents. It is also seen that parents of 10th standard children are not different from those of plus two students. On account of the factor of PTA Meeting the same trend is seen as in the case of extracurricular activities. Thus it is statistically proved that irrespective of the level of class in which their child is studying parents are not fully satisfied about the quality of education provided by schools.

Table 7.14(b)
Factors of Quality of Education from Parents Perspective Based on Class Wise in Thrissur 2020

Quality of Education	Class group(I)	Class group (J)	Mean difference (I-J)	Std. error	P value
Extracurricular activities	9 th STD	10 th STD	-0.673	0.182	0.001**
		Plus Two	-0.064	0.188	0.938 ^{NS}
	10 th STD	Plus Two	0.609	0.189	0.004**
Good IT Infrastructure	9 th STD	10 th STD	-0.510	0.179	0.013**
		Plus Two	-0.088	0.184	0.881 ^{NS}
	10 th STD	Plus Two	0.421	0.185	0.061 ^{NS}
PTA meeting	9 th STD	10 th STD	-0.735	0.194	0.001**
		Plus Two	-0.108	0.199	0.851 ^{NS}
	10 th STD	Plus Two	0.627	0.200	0.006**

Source: Computed from primary Data.

Notes: ** denotes significant at 1% level.

NS denotes non- significant

The perception of parents on quality of education with respect to standard in which their child is studying is compared and analyzed using Chi square test (Table 7.15) and the hypothesis is formulated that there is no significant association between class and level of quality of education. For finding out the association between parents on the basis of the standard in which their child is studying and quality of education Chi Square test is used. As the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level.

Hence, it seems that there is significant association between the standard in which their child is studying and quality of education provided by schools. It is statistically evident from the values of row percentage that, 36.2 per cent of parents of 9th standard children are satisfied by the quality of education provided by schools at low level. 31.4 per cent of them are at moderate level and 32.4 per cent of them are at high level. In the case of parents of 10th standard children, it was 16.5 per cent, 37.9 per cent and 45.6 per cent respectively. In the case of parents of Plus-two children, 21.7 per cent of them are under low level, 55.4 per cent of them are at moderate level and 22.8 per cent of them are at high level respectively. So, it can be argued that low

level of satisfaction regarding quality of education provided by schools given by parents is higher in the case of parents of 10th standard children and high level of the same are also given by parents of 10th standard, moderate level of the same is higher among parents of plus two children.

Table 7.15

Studying Standard and level of Quality of Education in Thrissur District in 2020

Studying STD	Level of Quality of Education			Total	Chi-square Value	P value
	Low	Moderate	High			
9 th STD	38 (36.2%)	33 (31.4%)	34 (32.4%)	105 (100%)	23.450	<0.001**
10 th STD	17 (16.5%)	39 (37.9%)	47 (45.6%)	103 (100%)		
Plus Two	20 (21.7%)	51 (55.4%)	21 (22.8%)	92 (100%)		
Total	75 (25%)	123 (41%)	102 (34%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test

The figures within parentheses refers to Row Percentage

** denotes significant at 1% level.

Thus it is statistically proved that based on standard in which their child is studying there are differences among parents related to quality of education provided by schools in Kerala. As in the case of parental care and support also, parents of 10th class children and that of plus two classes are comparatively satisfied by it but it can be also seen by the results that the parents overall are not highly satisfied by the quality of education provided by schools in Kerala.

7.3.5. School Type and Quality of Education

The perception of parents on quality of education with respect to type of school their child is attending is compared and analyzed using ANOVA test (Table 7.16 (a)). The hypothesis is formulated that there is no significant difference among different parents on the basis of their school type with respect to dimensions of quality of education. Since P value is less than 0.01, null hypothesis is rejected at 1% level with respect to dimensions of quality of education like strong student teacher relationship, better feedback system, extracurricular activities and PTA meetings held at schools. As a result, there are significant differences among different category group of parents about these aspects of quality of education. Since the p value is less than 0.05, the null hypothesis is rejected at 5% level regarding the factor of quality of education that schools provide good IT infrastructure and parental involvement in school activities. Therefore, it is inferred that there are significant differences among

various category group of parents regarding quality of education in Kerala. Since P value is greater than 0.05, the null hypothesis is accepted with regard to only one factor of quality of education like regular updating of syllabus and curriculum.

Table 7.16(a)

Quality of Education from Parents Perspective Based on School Type in Thrissur in 2020

Quality of Education	School type			F value	P value
	Govt.	Aided	CBSE		
	Mean and SD	Mean and SD	Mean and SD		
Strong students teacher relationship	2.58 (1.44)	2.65 (1.43)	3.51 (1.02)	11.480	<0.001**
Better Feedback System	2.86 (1.36)	2.95 (1.35)	3.63 (0.87)	8.712	<0.001**
Regular Updating of syllabus and curriculum	2.70 (1.31)	2.87 (1.22)	2.72 (0.97)	0.647	0.524 ^{NS}
Extracurricular Activities	2.72 (1.42)	2.83 (1.39)	3.45 (0.95)	7.003	0.001**
Good IT Infrastructure	2.94 (1.33)	2.82 (1.37)	3.33 (1.05)	3.551	0.030*
Parental Involvement in School Activities	2.81 (1.40)	2.92 (1.35)	3.36 (0.96)	4.020	0.019*
PTA meeting	2.37 (1.46)	2.47 (1.44)	3.48 (0.99)	15.936	<0.001**

Source: Computed from primary Data.

Notes: ANOVA Test; The figures within parentheses refers to SD

** denotes significant at 1% level, NS denotes non-significant.

Thus, it is clear that there exists difference among parents on the basis of school types in which their child is studying regarding Quality of Education. Parents have shown different opinions regarding the six dimensions of quality of education and not different, with respect to only one dimension of quality of education like regular updating of syllabus and curriculum. It is also evident from the analysis that except parents of CBSE School going children, other parents are not in favour of the quality of education provided by the schools in Kerala. The following significant difference found among parents on the basis of school types in which their child is studying regarding quality of education on the basis of Post-hoc test (Table 7.16 (b)). Parents of government school going children are different with CBSE School going parents and parents of aided school going children are different with that of CBSE and there are no differences between government and aided school going children's parents regarding the time they spent with their child at home. Taking consideration, better feedback system provided by schools, parents of children attending government schools are different with that of CBSE and parents of children attending aided

schools are different with that of CBSE. There is no significant difference between government and aided school attending children's parents in this regard.

Table 7.16(b)

Factors of Quality of Education from Parents Perspective Based on School Type in Thrissur 2020

Quality of Education	School type (I)	School type (J)	Mean difference (I-J)	Std. error	P value
Strong students teacher relationship	Govt.	Aided	-0.069	0.178	0.919 ^{NS}
		CBSE	-0.931	0.210	0.000 ^{**}
	Aided	CBSE	-0.861	0.204	0.000 ^{**}
Better Feedback System	Govt.	Aided	-0.090	0.166	0.850 ^{NS}
		CBSE	-0.771	0.196	0.000 ^{**}
	Aided	CBSE	-0.680	0.191	0.001 [*]
Extracurricular Activities	Govt.	Aided	-0.116	0.174	0.782 ^{NS}
		CBSE	-0.733	0.204	0.001 [*]
	Aided	CBSE	-0.617	0.199	0.006 [*]
Good IT Infrastructure	Govt.	Aided	0.121	0.170	0.755 ^{NS}
		CBSE	-0.393	0.200	0.123 ^{NS}
	Aided	CBSE	-0.515	0.195	0.024 [*]
Parental Involvement in School Activities	Govt.	Aided	-0.112	0.170	0.787 ^{NS}
		CBSE	-0.552	0.200	0.017 [*]
	Aided	CBSE	-0.440	0.195	0.064 ^{NS}
PTA meeting	Govt.	Aided	-0.105	0.179	0.828 ^{NS}
		CBSE	-1.114	0.211	0.000 ^{**}
	Aided	CBSE	-1.009	0.206	0.000 ^{**}

Source: Computed from primary Data.

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

NS denotes non- significant.

Parents of children attending government schools are different with that of CBSE and parents of children attending aided school are different with that of CBSE on account of extracurricular activities held in schools and there is no significant difference between government and aided school attending children's parents in this regard. On account of good IT infrastructure provided by schools, there are no significant differences between Government and CBSE, aided and Government and significant differences between aided and CBSE parents. Regarding parental involvement in school activities there is no significant difference between government and aided and aided and CBSE parents but difference is seen between government and CBSE parents. In the case of PTA meetings held at schools, there are significant differences between government and CBSE, aided and CBSE and not much difference between government and aided schools. On the basis of mean score and the related factors of quality of education and school type in which their child is studying, it is observed that parents of CBSE School attending children are more satisfied regarding all the above said dimensions. On the other hand, parents of government and aided school

children are comparatively less satisfied in this regard. Parents of government school going children are more satisfied by the good IT infrastructure of schools, aided school children's parents and CBSE school going children's parents are more satisfied by the better feedback system. It is also statistically proved that regarding almost all the aspects of quality aspects of school education, there are much differences seen between CBSE and government schools on the one hand, and CBSE and aided schools on the other.

Table 7.17
School Type and Level of Quality of Education in Thrissur District in 2020

School type	Level of Quality of Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Govt.	34 (31.5%)	47 (43.5%)	27 (25%)	108 (100%)	24.338	<0.001**
Aided	36 (29%)	51 (41.1%)	37 (29.8%)	124 (100%)		
CBSE	5 (7.4%)	25 (36.8%)	38 (55.9%)	68 (100%)		
Total	75 (25%)	123 (41%)	102 (34%)	300 (100%)		

Source: Computed from Primary Data.

Note: Chi Square Test

The figures within parentheses refers to Row Percentage

* denotes significant at 1% level.

Both government and aided schools reflect same picture that focus on the importance of improvement in quality of education provided by these schools. So, on the basis of mean scores it is obvious that parents are not fully satisfied by the quality of education provided by schools. The perception of parents on quality of education with respect to type of school is compared and analyzed using Chi square test (Table 7.17). The hypothesis is formulated that there is no significant association between class and level of quality of education. To find out any association among parents on the basis of school type in which their child is studying and quality of education chi square test is used. From the analysis it is seen that the P value is less than 0.01, and the null hypothesis is rejected at 1 per cent level. Hence, it is inferred that there is significant association between school type and quality of education provided by schools in Kerala. On the basis of row percentage, 31.5 per cent of government school going children's parents are of the opinion that the quality of education provided by schools are at low level, 43.5 per cent of them are at moderate level and 25 per cent of them are at high level. In the case of parents of aided school going children, it was 29 per cent, 41.1 per cent and 29.8 per cent respectively. In the case of parents of CBSE

school going children, 7.4 per cent of them are under low level, 36.8 per cent of them are at moderate level and 55.9 per cent of them are at high level respectively.

So, it is evident that low level of quality of education provided by schools is higher in the opinion of parents of government school going children and high level of quality of education are provided by schools according to the parents of CBSE school going children, moderate level of the same is higher among parents of aided school going children. Thus it is statistically proved that based on school type of children there are differences among parents related to quality of education provided by schools. It is also clear that most of the parents are not satisfied by the quality of education provided by schools except in CBSE schools.

7.3.6. Quality of Education and Geographical Location

The perception of parents on quality of education with respect to the geographical area is compared and analyzed using T test (Table 7.18). The hypothesis is formulated that there is no significant difference among different parents on the basis of geographical area with respect to dimensions of quality of education. The mean score and one sample T test for measuring the significant difference between parents based on the area in which they are living and the factors of quality of education are analysed. As the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level with regard to the factors of quality of education like strong student teacher relationship, better feedback System, extracurricular activities, good IT Infrastructure and PTA meetings held at schools. Thus there are significant differences among parents on the basis of the area in which they are living regarding quality of education. Since p value is more than 0.05, the null hypothesis is accepted at 5 per cent level regarding the factors of quality of education like regular updating of syllabus and curriculum and parent's involvement in school activities. Thus there are no significant differences among parents on the basis of the area in which they are living regarding these above said aspects of quality of education. Based on mean score, it can be interpreted that families in which parents living in urban areas are more satisfied by the quality of education provided by schools than parents living in rural areas by taking into account all the dimensions. Thus it is evident that there are rural and urban differences regarding quality of education on the basis of locality or area in which they are living with respect to dimensions of quality of education.

Table 7.18
Quality of Education and the Perspective of Parents on the Basis of Locality in Thrissur (2020)

Quality of Education	Locality				T value	P value
	Rural		Urban			
	Mean	SD	Mean	SD		
Strong students teacher relationship	2.43	1.44	3.34	1.16	-5.83	<0.001**
Better Feedback System	2.80	1.38	3.42	1.08	-4.21	<0.001**
Regular Updating of syllabus and curriculum	2.79	1.30	2.75	1.06	0.23	0.816 ^{NS}
Extracurricular activities	2.65	1.41	3.31	1.15	-4.28	<0.001**
Good IT Infrastructure	2.73	1.37	3.31	1.13	-3.84	<0.001**
Parent's involvement in school activities	2.83	1.38	3.19	1.17	-2.40	0.017 ^{NS}
PTA meeting	2.21	1.41	3.27	1.22	-6.78	<0.001**

Source: Computed from Primary Data.

Notes: Mean score and Independent T Test

** denotes significant at 1% level, NS denotes non-significant

The perception of parents on quality of education with respect to geographical area is compared and analyzed using Chi square test (Table 7.19). The hypothesis is formulated that there is no significant association between geographical area and level of quality of education. The P value is less than 0.01; the null hypothesis is rejected at 1 per cent level.

Table 7.19
Locality and Level of Quality of Education in Thrissur District in 2020

Locality	Level of Quality of Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Rural	58 (33.7%)	83 (48.3%)	31 (18%)	172 (100%)	47.705	<0.001**
Urban	17 (13.3%)	40 (31.3%)	71 (55.5%)	128 (100%)		
Total	75 (25%)	123 (41%)	102 (34%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test,

The figures within parentheses refers to Row Percentage

** denotes significant at 1% level.

Hence, it can be interpreted that there is significant association among parents based on the area where they are living and quality of education provided by schools. It is statistically evident from the values of row percentage that, 33.7 per cent of parents living in rural areas are satisfied by the quality of education provided by schools at low level, 48.3 per cent of them are at moderate level and 18 per cent of them are at high level. In the case of parents living in urban areas, it was 13.3 per

cent, 31.3 and 55.5 respectively. So, it is identified that low level of satisfaction regarding quality of education provided by schools are given by parents living in rural areas and high level of the same are given by parents living in urban areas, moderate level of the same is higher among parents living in rural areas.

Table 7.20

The level of Quality of Education in Thrissur District in 2020

Attribute	Low level (Q1)	Moderate level (Q2)	High level (Q3)	Total	Chi-Square value	P value
Quality of education	75 (25%)	123 (41%)	102 (34%)	300 (100%)	11.580	0.003**

Source: Computed from Primary Data

Notes: Level Test,

** denotes significant at 1% level.

Thus it is statistically proven that based on the area or locality in which parents are living; there are significant differences among them related to quality of education provided by schools. Thus it is statistically proved that parents living in urban areas are more satisfied by the quality of education in schools than parents living in rural areas. This may be due to the well-equipped and well-furnished availability of schools existing in towns and cities than in villages and semi urban or rural areas. Thus there are rural- urban differences regarding quality of education. The level of quality of education in Thrissur district is analysed with the help of Level test and results are presented in the Table 7.20. Since the P value is less than 0.01, the proportion of level of quality of education in Thrissur is not equally distributed. It indicates that there are significant differences regarding the level of quality of education. From the above table it is observed that 25 percent of parents have low level of satisfaction regarding quality of education. It is seen from the table 8.16 that 41 percent of parents have moderate level of satisfaction regarding quality of education and 34 percent of parents are highly satisfied about the quality of education. So, it is analysed that most of the parents are moderately satisfied about schools.

7.4. Problems of School Education and Quality

There are so many problems from the perspectives of parents related to school education. The problems are poor household atmosphere, low educational level of the parents, poor academic performance of child, financial problems, time constraint of parents, lack of motivation, love and affection from family and problems related to

school environment and lack of government support in the form of scholarship. All these problems affect school education quality. The perspective of parents on different aspects of school education of their child helps to understand about the school educational standards. Thus, the most relevant problem from the perspective of parents are poor household atmosphere (2.53) followed by time constraint of parents (2.34), lack of government support in the form of scholarship (2.33), financial problems (2.31), problems related to school environment (2.30), poor academic performance of child (2.29), low educational level of the parents (2.28) and the least relevant are lack of motivation, love and affection from family (2.12).

Table 7.21

Problems of School Education from the Perspective of Parents in Thrissur District in 2020

SI No	Factors of Problems of school education	Mean	Standard Deviation	Mean difference	T value	P Value	Rank
1	Poor household atmosphere	2.53	1.18	-0.64	-9.42	<0.001**	I
2	Low educational level of the parents	2.28	1.12	-0.70	-10.79	<0.001**	VII
3	Poor academic performance of child	2.29	1.08	-0.71	-11.37	<0.001**	VI
4	Financial problems	2.31	1.08	-0.69	-10.98	<0.001**	IV
5	Time constraint of parents	2.34	1.06	-0.66	-10.85	<0.001**	II
6	Lack of motivation, love and affection from family	2.12	1.06	-0.88	-14.34	<0.001**	VIII
7	Problems related to school environment	2.30	1.08	-0.69	-11.01	<0.001**	V
8	Lack of Govt. support in the form of scholarship	2.33	1.04	-0.67	-11.10	<0.001**	III

Source: Computed from Primary Data

Notes: Mean Score and One Sample T Test,

Test Value: 3; ** denotes significant at 1% level.

7.4.1. Age of Parents and Problems of School Education

The perception of parents related to the problems of school education with respect to their age is analyzed using ANOVA test and results are presented in the Table 7.22. The hypothesis is formulated that there is no significant difference among age group of parents with respect to dimensions of problems related to school education. The various factors related to the problems of school education from the perspective of parents of different age group is being analysed with the help of ANOVA test. The P value is greater than 0.05 for all the factors of problems of school education. So it indicates that the null hypothesis is accepted with regard to all these factors of problems of school education. Regarding all the different dimensions of

problems of school education, i.e. poor household atmosphere, low educational level of the parents, poor academic performance of child, financial problems, time constraint of parents, lack of motivation, love and affection from family, problems related to school environment and lack of government support in the form of scholarship there are no statistically proved differences between different age group of parents.

Table 7.22

Problems of School Education from the Perspective of Parents in 2020

Problems of School education	Age group			F value	P value
	31 to 40 years	41 to 50 years	Above 51 years		
	Mean and SD	Mean and SD	Mean and SD		
Poor household atmosphere	2.31 (1.16)	2.38 (1.18)	2.31 (1.31)	0.112	0.894 ^{NS}
Low educational level of the parents	2.28 (1.12)	2.34 (1.13)	2.06 (1.13)	0.730	0.483 ^{NS}
Poor academic performance of child	2.26 (1.08)	2.30 (1.07)	2.27 (1.13)	0.053	0.949 ^{NS}
Financial problems	2.25 (1.07)	2.37 (1.09)	2.10 (1.11)	0.968	0.381 ^{NS}
Time constraint of parents	2.25 (1.06)	2.41 (1.06)	2.10 (1.04)	1.470	0.232 ^{NS}
Lack of motivation, love and affection from family	2.09 (1.06)	2.14 (1.04)	2.06 (1.22)	0.098	0.907 ^{NS}
Problems related to school environment	2.27 (1.13)	2.35 (1.05)	2.17 (1.10)	0.418	0.659 ^{NS}
Lack of Govt. support in the form of scholarship	2.28 (1.06)	2.41 (1.03)	1.96 (0.94)	2.459	0.087 ^{NS}

Source: Computed from Primary Data.

Notes: ANOVA Test.

The figures within parentheses refers to SD

NS denotes non-significant.

The results thus shows that in the case of 31-40 age group of parents the most relevant problem is poor household atmosphere (2.31) and the least affected problem is lack of motivation, love and affection from family (2.09). In the case of 41-50 aged group of parents the most important problems are time constraints of parents (2.41) and lack of government support in the form of scholarship (2.41) and the least affected one is related to lack of motivation, love and affection from family (2.14). In the case of above 51 years of aged group of parents it is poor household atmosphere (2.31) and lack of Government support in the form of scholarship (1.96) respectively.

7.4.2. Religion of Parents and Problems of School Education

The problems of school education from the part of parents on the basis of their caste are analyzed with the help of ANOVA test is shown in the Table 7.23 (a)The perception of parents related to the problems of school education with respect to their religion is analyzed and compared using ANOVA test. The hypothesis is formulated

that there is no significant difference among parents on the basis of their religion regarding different dimensions of problems related to school education.

Table 7.23(a)
Problems of School Education on the Basis of Religion in Thrissur District in 2020

Problems of school education	Religion			F value	P value
	Hindu	Christian	Muslim		
	Mean and SD	Mean and SD	Mean and SD		
Poor household atmosphere	2.15 (1.19)	2.74 (1.10)	2.40 (1.17)	5.155	0.006**
Low educational level of the parents	2.10 (1.12)	2.47 (1.11)	2.46 (1.10)	4.071	0.018*
Poor academic performance of child	2.15 (1.12)	2.49 (0.99)	2.36 (1.04)	2.256	0.107 ^{NS}
Financial problems	2.21 (1.11)	2.41 (1.04)	2.38 (1.06)	1.036	0.356 ^{NS}
Time constraint of parents	2.17 (1.08)	2.47 (1.01)	2.46 (1.04)	2.810	0.062 ^{NS}
Lack of motivation, love and affection from family	1.90 (1.03)	2.30 (0.99)	2.31 (1.08)	5.806	0.003**
Problems related to school environment	2.24 (1.13)	2.29 (0.97)	2.40 (1.07)	0.717	0.489 ^{NS}
Lack of Govt. support in the form of scholarship	2.26 (1.12)	2.27 (0.89)	2.44 (1.00)	1.025	0.360 ^{NS}

Source: Computed from primary Data.

Notes: ANOVA Test. The figures within parentheses refers to SD

** denotes significant at 1% level,* denotes significant at 5% level,

NS denotes non-significant.

The P value is less than 0.01; null hypothesis is rejected at 1% level with respect to the dimensions of problems of school education like poor household atmosphere and lack of motivation, love and affection from family. Thus there is significant difference among different caste group of parents regarding these aspects of problems of school education. The P value is less than 0.05; null hypothesis is rejected at 5% level with respect to dimensions of problems of school education like low educational level of the parents.

As a result, there is significant difference among different caste group of parents regarding this aspect of problems of school education. Since P value is greater than 0.05, the null hypothesis is accepted with regard to the factors of problems of school education like poor academic performance of child, financial problems, time constraint of parents, problems related to school environment and lack of government support in the form of scholarship. Thus it is clear that different caste groups have shown almost similar opinion about all these dimensions of problems of school education except poor household atmosphere, low educational level of the parents and lack of motivation, love and affection from family. In the case of Hindu parents the most important problem of school education is lack of government support in the form of scholarship (2.26) and the least important is lack of motivation, love and

affection from family (1.90). Christian parents are more concerned about the problem of poor household atmosphere (2.74) and least concerned by lack of government support in the form of scholarship (2.27). From the perspective of Muslims it is low educational level of parents (2.46) and time constraint of parents (2.46) and lack of motivation, love and affection from family (2.31) respectively.

Table 7.23(b)
Problems of School Education on the Basis of Religion in Thrissur in 2020

Problems of School Education	Religion (I)	Religion (J)	Mean difference (I-J)	Std. error	P value
Poor household atmosphere	Hindu	Christian	-0.588	0.186	0.005**
		Muslim	-0.252	0.151	0.220 ^{NS}
	Christian	Muslim	0.335	0.195	0.199 ^{NS}
Low educational level of the parents	Hindu	Christian	-0.372	0.177	0.092 ^{NS}
		Muslim	-0.366	0.144	0.031*
	Christian	Muslim	0.006	0.185	0.999 ^{NS}
Lack of motivation from family	Hindu	Christian	-0.409	0.166	0.039*
		Muslim	-0.414	0.135	0.007**
	Christian	Muslim	-0.005	0.174	1.000 ^{NS}

Source: Computed from primary Data.

Notes: ** denotes significant at 1% level.

* denotes significant at 5% level.

NS denotes non-significant

By using Turkey HSD post hoc test, the following significant difference found among the perception of various parents on the basis of their religion regarding problems of school education in Kerala is presented in the Table 7.23 (b). Hindu parents are significantly differed with Christian parents regarding the factor poor household atmosphere and Christian parents have not shown a significant difference with Muslim parents regarding the same factor. Considering the low educational level of the parents there are significant differences between Hindus and Muslims and no significant differences between Christians and Muslims.

Regarding lack of motivation, love and affection from family, Hindu parents are significantly differed with Christian and Muslim parents there are significant differences between Hindus and Christians and no significant differences between Christians and Muslims. On the basis of mean score, it can be observed that Christian parents expressed more problems related to school education and low educational level of the parents than Muslims and Hindu parents and Christian and Muslim parents consider the problem of lack of motivation, love and affection from family more than Hindu parents. There are significant differences between Christians and Hindus and no significant differences between Christians and Muslims regarding the

same. It is also apparent that all the parents irrespective of different caste have not revealed many problems related to school education.

7.4.3. Caste of Parents and Problems of School Education

The perception of parents related to the problems of school education with respect to their caste is analyzed and compared using ANOVA test is presented in the Table 7.24(a).

Table 7.24 (a)
Problems of School Education on the Basis of Caste in Thrissur District in 2020

Problems of School Education	Caste				F value	P value
	OEC	OBC	SC/ST	Others		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Poor household atmosphere	2.63 (1.06)	2.29 (1.19)	2.44 (1.19)	2.19 (1.30)	1.379	0.249 ^{NS}
Low educational level of the parents	2.38 (1.06)	2.27 (1.12)	2.72 (1.10)	1.96 (1.22)	2.217	0.086 ^{NS}
Poor academic performance of child	2.63 (0.95)	2.23 (1.10)	2.56 (1.08)	1.80 (0.94)	4.648	0.003 ^{**}
Financial problems	2.46 (0.95)	2.31 (1.12)	2.56 (0.96)	1.80 (1.07)	3.053	0.029 [*]
Time constraint of parents	2.65 (0.96)	2.29 (1.06)	2.56 (0.96)	1.87 (1.14)	4.124	0.007 ^{**}
Lack of motivation, love and affection from family	2.25 (0.92)	2.12 (1.09)	2.44 (1.08)	1.61 (0.88)	3.452	0.017 [*]
Problems related to school environment	2.40 (0.93)	2.32 (1.12)	2.64 (1.03)	1.77 (0.99)	3.524	0.015 [*]
Lack of Govt. support in the form of scholarship	2.48 (0.91)	2.34 (1.07)	2.44 (1.00)	1.87 (1.02)	2.507	0.059 ^{NS}

Source: Computed from primary Data.

Notes: . ANOVA Test. The figures within parentheses refers to SD

** denotes significant at 1% level,

* denotes significant at 5% level, NS denotes non-significant.

The hypothesis is formulated that there is no significant difference among parents on the basis of their caste regarding different dimensions of problems related to school education. As the P value is less than 0.01, null hypothesis is rejected at 1% level with respect to dimensions of problems of school education like poor academic performance of child and time constraint of parents so that there are significant differences among different category group of parents regarding these aspects. Since the p value is less than 0.05, the null hypothesis is rejected at 5% level regarding the factor of problems of school education like financial problems, lack of motivation, love and affection from family and problems related to school environment. Therefore, it is inferred that there are significant differences among various category group of parents regarding these aspects of problems of school education in Kerala.

Since P value is greater than 0.05, the null hypothesis is accepted with regard to the factors of problems of school education like poor household atmosphere, low educational level of the parents and lack of government support in the form of scholarship so that there exists no significant differences among parents regarding

these aspects of problems of school education. Thus it is clear that different category group of parents have shown different opinions regarding the five dimensions of problems of school education and not different with respect to the three dimensions of the same. It is also clear from the analysis that all the categories of parents have not expressed much problems related to school education in Kerala. The following significant difference found among the perception of various category groups of parents on the basis of post-hoc test regarding problems of school education in Kerala (Table 24(b)).

Table 7.24(b)
Problems of School Education on the Basis of Caste in Thrissur in 2020(Post Hoc Test)

Problems of School Education	Caste(I)	Caste (J)	Mean difference (I-J)	Std. error	P value
Poor academic performance of child	OEC	OBC	0.395	0.166	0.083 ^{NS}
		SC/ST	0.074	0.258	0.992 ^{NS}
		Others	0.828	0.241	0.004 ^{**}
	OBC	SC/ST	-0.320	0.225	0.489 ^{NS}
		Others	0.433	0.205	0.153 ^{NS}
		SC/ST	0.753	0.285	0.043 [*]
Financial problems	OEC	OBC	0.143	0.168	0.828 ^{NS}
		SC/ST	-0.098	0.262	0.982 ^{NS}
		Others	0.655	0.244	0.039 [*]
	OBC	SC/ST	-0.242	0.229	0.715 ^{NS}
		Others	0.511	0.208	0.070 ^{NS}
	SC/ST	Others	0.753	0.289	0.048 [*]
Time constraint of parents	OEC	OBC	0.362	0.163	0.123 ^{NS}
		SC/ST	0.093	0.255	0.983 ^{NS}
		Others	0.782	0.237	0.006 ^{**}
	OBC	SC/ST	-0.268	0.222	0.625 ^{NS}
		Others	0.420	0.202	0.164 ^{NS}
	SC/ST	Others	0.689	0.281	0.071 ^{NS}
Lack of motivation, love and affection from family	OEC	OBC	0.125	0.164	0.872 ^{NS}
		SC/ST	-0.190	0.255	0.879 ^{NS}
		Others	0.637	0.238	0.039 [*]
	OBC	SC/ST	-0.315	0.223	0.493 ^{NS}
		Others	0.512	0.203	0.059 ^{NS}
	SC/ST	Others	0.827	0.282	0.019 [*]
Problems related to school environment	OEC	OBC	0.075	0.167	0.969 ^{NS}
		SC/ST	-0.236	0.260	0.802 ^{NS}
		Others	0.629	0.243	0.049 [*]
	OBC	SC/ST	-0.311	0.227	0.520 ^{NS}
		Others	0.553	0.207	0.040 [*]
	SC/ST	Others	0.865	0.288	0.015 [*]

Source: Computed from primary Data.
Notes: ** denotes significant at 1% level.
* denotes significant at 5% level.
NS denotes non- significant

OEC parents are significantly differed from other category of parents regarding the problem of poor academic performance of child and not shown a significant difference with OBC and SC/ST parents regarding the same factor. OBC parents are not significantly different from SC/ST and others and SC/ST parents are

significantly different from others regarding the same factor. On account of financial problems faced by parents, there are significant differences between OEC and others and no significant differences with OBC and SC/ST categories of parents. OBC parents are not significantly different from SC/ST and others and SC/ST are statistically different from others regarding the same factor.

Table 7.25
Problems of School Education and Caste of Parents in Thrissur District in 2020

Caste	Level of Problems of School Education			Total	Chi-square Value	P value
	Low	Moderate	High			
OEC	5 (9.6%)	32 (61.5%)	15 (28.8%)	52 (100%)	17.959	0.006**
OBC	57 (29.7%)	82 (42.7%)	53 (27.6%)	192 (100%)		
SC/ST	5 (20%)	10 (40%)	10 (40%)	25 (100%)		
Others	14 (45.2%)	13 (41.9%)	4 (12.9%)	31 (100%)		
Total	81 (27%)	137 (45.7%)	82 (27.3%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test

The value within () refers to Row Percentage

** denotes 1 % level significance.

Regarding the time constraint of parents, there are significant differences between OEC and others and no significant differences with OBC and SC/ST categories of parents. OBC category of parents is not significantly different from SC/ST and others. SC/ST category of parents is not significantly different from other categories regarding the same factor. OEC parents are significantly different from other category of parents and not significantly different from OBC and SC/ST category of parents considering the problem of lack of motivation, love and affection from family. OBC parents are not different from SC/ ST and others and SC/ST is different from other categories regarding the same factor. On account of problems related to school environment, OEC are different from other category of parents and not different from OBC and SC/ST parents. OBC category of parents is not significantly different from SC/ST and different with other category of parents and SC/ST parents are significantly different from other category of parents regarding the same.

On the basis of mean score and the above related factors of problems of school education, it can be observed that OEC parents revealed that they face these problems

compared to other category of parents. According to OEC parents the most important problem of school education in Kerala is the time constraints of parents, to OBC category of parents it is lack of government support in the form of scholarship, to SC/ST parents it is low educational level of the parents and for other categories it is poor household atmosphere. The perception of parents related to the problems of school education with respect to caste is analyzed using Chi Square test and the hypothesis is formulated that there is no significant association between caste of parents and level of problems of School Education. With the help of Chi square test, the significant association between caste of parents and level of problems of school education is analysed (Table 7.25). It is seen that the P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. Hence, it is shown that there is significant association between caste and level of problems of school education.

On the basis of row percentage, 9.6 per cent of OEC parents are having low level of problems related to school education. It is obvious that 61.5 per cent of them are at moderate level and 28.8 per cent of them are at high level. In the case of OBC parents, it was 29.7 per cent, 42.7 per cent and 27.6 per cent respectively. In the case of SC/ST parents, 20 per cent of them are under low level, 40 per cent of them are at moderate level and 40 per cent of them are at high level. In the case of other category of parents, it is 45.2 per cent, 41.9 per cent and 12.9 per cent respectively.

So, it is evident that low level of problems related to school education is higher among other category of parents and high level of problems related to school education is higher among SC/ST parents and, moderate level of the same is higher among OEC parents. Thus it is statistically proved that caste wise there are differences among parents related to school education in Kerala. It is also clear that most of the parents do not have much problems related to school education.

7.4.4. School Type and Problems of School Education

In the case of parents of children attending Government schools the most important problems are lack of Government support in the form of scholarship (2.48) and the least problem is lack of motivation, love and affection from family (2.19). From the perspective of parents of children attending aided schools it is time constraints of parents (2.31) and lack of motivation, love and affection from family (1.99) and to parents of CBSE school attending children it is poor household atmosphere (2.47) and lack of motivation, love and affection from family (2.23)

respectively. Therefore, it is inferred that there are no significant differences among parents on the basis of school types in which their child is studying except one aspect of the problems of School Education.

Table 7.26(a)
Problems of School Education on the Basis of School Type in Thrissur District in 2020

Problems of School Education	School Type			F value	P value
	Govt.	Aided	CBSE		
	Mean and SD	Mean and SD	Mean and SD		
Poor household atmosphere	2.37 (1.25)	2.26 (1.21)	2.47 (1.02)	0.689	0.503 ^{NS}
Low educational level of the parents	2.30 (1.19)	2.21 (1.13)	2.42 (1.01)	0.756	0.471 ^{NS}
Poor academic performance of child	2.37 (1.16)	2.18 (1.09)	2.33 (0.89)	1.018	0.363 ^{NS}
Financial problems	2.45 (1.17)	2.20 (1.08)	2.26 (0.92)	1.533	0.218 ^{NS}
Time Constraints of Parents	2.37 (1.10)	2.31 (1.10)	2.29 (0.91)	0.167	0.846 ^{NS}
Lack of motivation, love and affection from family	2.19 (1.17)	1.99 (1.05)	2.23 (0.84)	1.572	0.209 ^{NS}
Problems related to school environment	2.45 (1.17)	2.20 (1.11)	2.27 (0.84)	1.599	0.204 ^{NS}
Lack of Govt support in the form of scholarship	2.48 (1.10)	2.14 (1.04)	2.42 (0.90)	3.421	0.034 [*]

Source: Computed from primary Data.

Notes: ANOVA Test.

The figures within parentheses refers to SD

** denotes significant at 1% level, * denotes significant at 5% level

NS denotes non-significant.

Since P value is greater than 0.05, the null hypothesis is accepted with regard to all the other factors of problems of school education, like poor household atmosphere, low educational level of the parents, poor academic performance of child, financial problems, time constraints of parents, lack of motivation, love and affection from family and problems related to school environment. Thus it is clear that there exists no significant difference among parents on the basis of school types in which their child is studying regarding problems of school education. Significant difference is found among parents on the basis of school types in which their child is studying regarding problems of school education on the basis of Post-hoc test is presented in the Table 7.26 (b). Parents of government school going children are different with aided school going children's parents and not different with that of CBSE School going children's parents and parents of aided school going children are not different with that of CBSE regarding the lack of government support in the form of scholarship. On the basis of mean score and the above related factors of problems of school education on the basis of school type in which their child is studying, it can be

observed that parents of all the school types do not face much problems related to school education and comparatively there is no significant differences seen among all these groups. According to government school attending children’s parents, the most important problem is lack of government support in the form of scholarship.

Table 7.26(b)
Problems of School Education on the Basis of School Type in Thrissur in 2020(Post Hoc Test)

Problems of School Education	School type (I)	School type (J)	Mean difference (I-J)	Std. error	P value
Lack of Govt support in the form of scholarship	Govt.	Aided	0.336	0.136	0.038*
		CBSE	0.055	0.160	0.937 ^{NS}
	Aided	CBSE	-0.281	0.156	0.172 ^{NS}

Source: Computed from primary Data.
Notes * denotes significant at 5% level.
NS denotes non – significant.

To aided school children’s parents it is time constraints of parents and in the opinion of CBSE school children’s parents it is poor household atmosphere of parents. All this indicate the importance they give to their child irrespective of the financial background.

Table 7.27
Problems of School Education and School Type of Parents in Thrissur District in 2020

School type	Level of Problems of School Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Govt.	31 (28.7%)	41 (38%)	36 (33.3%)	108 (100%)	11.646	0.020*
Aided	40 (32.3%)	56 (45.2%)	28 (22.6%)	124 (100%)		
CBSE	10 (14.7%)	40 (58.8%)	18 (26.5%)	68 (100%)		
Total	81 (27%)	137 (45.7%)	82 (27.3%)	300 (100%)		

Source: Computed from Primary Data.
Notes: Chi Square Test
The figures within parentheses refers to Row Percentage
* denotes 5 % level significance.

This clearly throws light in to the fact that majority of the students studying in CBSE schools are not financially well to do, but parents are willing to send their children to CBSE irrespective of their financial background. The perception of parents related to the problems of school education with respect to type of school is analyzed using Chi Square test and results are presented in the table 7.27. The hypothesis is formulated that there is no significant association between school type and level of problems of school education. From the analysis it is seen that the P value is less than 0.05, the null hypothesis is rejected at 5 per cent level. Hence, it can be inferred that there is significant association between school type and problems of school education

in Kerala. On the basis of row percentage, 28.7 per cent of government schools going children's parents are of the opinion that the problems related to school education are at low level. 38 per cent of them are at moderate level and 33.3 per cent of them are at high level. In the case of parents of aided school going children, it was 32.3 per cent, 45.2 per cent and 22.6 per cent respectively. In the case of parents of CBSE School going children, 14.7 per cent of them are under low level, 58.8 per cent of them are at moderate level and 26.5 per cent of them are at high level respectively. So, it is concluded that low level of problems related to schools is higher in the opinion of parents of aided school going children and high level of problems related to schools are by parents of government school going children; moderate level of the same is higher among parents of CBSE school going children. Thus it is statistically proved that based on school type of children there are differences among parents related to problems of school education in Kerala.

7.4.5. Geographical Location and Problems of School Education

With the help of mean score and one sample T test the significant difference between parents based on the area in which they are living and the problems of School Education are being analysed and results are presented in the Table 7.28. The P value is less than 0.01; the null hypothesis is rejected at 1 per cent level with regard to the factor of problems of school education like low educational level of parents. Thus there are significant differences among parents on the basis of the area in which they are living regarding this aspect of problems related to school education. Since the p value is less than 0.05, the null hypothesis is rejected at 5 per cent level with regard to the factors of problems of school education like lack of motivation, love and affection from family.

Thus there are significant differences among parents on the basis of the area in which they are living regarding this aspect of problems related to school education. Since the p value is higher than 0.05, the hypothesis is accepted for the other factors of problems of school education like poor household atmosphere, poor academic performance of child, financial problems, time constraints of parents, problems related to school environment and lack of government support in the form of scholarship. It indicates that there are no significant differences among parents based on the area in which they are living and the above said factors of problems related to school education. Based on mean score, it is evident that there are not many problems

related to school education among parents but comparatively, the problems are more in the case of parents living in urban areas. Thus it is obvious that there are rural urban differences regarding problems related to school education.

Table 7.28

Problems of School Education from the Perspective of Parents on the Basis of Locality in Thrissur (2020)

Problems of School Education	Locality				T value	P value
	Rural		Urban			
	Mean	SD	Mean	SD		
Poor household atmosphere	2.23	1.25	2.50	1.07	-1.95	0.052 ^{NS}
Low educational level of the parents	2.13	1.15	2.50	1.05	-2.82	0.005 ^{**}
Poor academic performance of child	2.21	1.14	2.39	0.98	-1.39	0.165 ^{NS}
Financial problems	2.25	1.14	2.38	1.00	-1.00	0.318 ^{NS}
Time Constraints of Parents	2.29	1.12	2.39	0.97	-0.80	0.422 ^{NS}
Lack of motivation, love and affection from family	2.00	1.12	2.27	0.96	-2.17	0.031 [*]
Problems related to school environment	2.26	1.17	2.36	0.95	-0.78	0.432 ^{NS}
Lack of Govt support in the form of scholarship	2.27	1.09	2.39	0.97	-0.97	0.328 ^{NS}

Source: Computed from Primary Data.

Notes: Mean Score and Independent T Test

** denotes significant at 1% level, *denotes significant at 5% level,

NS denotes non-significant

The perception of parents related to the problems of school education with respect to geographical area is analyzed using Chi Square test in the Table 7.29 and the hypothesis is formulated that there is no significant association between geographical area and level of problems of school education. For finding out the association between parents on the basis of area or locality in which they are living and problems of school education, Chi Square test is used for analysis.

The P value is less than 0.01; the null hypothesis is rejected at 1 per cent level. Hence, it is interpreted that there is significant association among parents based on the area in which they are living and the problems related to school education. It is statistically evident from the values of row percentage that, 34.9 per cent of parents living in rural areas have addressed problems related to school education at low level, 39.5 per cent of them are at moderate level and 25.6 per cent of them are at high level. In the case of parents living in urban areas, it was 16.4 per cent, 53.9 and 29.7 respectively.

So, it seems that low level of problems related to school education are given by parents living in rural areas and high level of the same are given by parents living in urban areas, moderate level of the same is higher among parents living in urban

areas. Thus it is statistically proved that based on the area or locality in which parents live; there are significant differences among them related to problems of school education. Thus there are differences in terms of problems related to school education based on the area in which they are living but all the parents do not have many problems. So it is evident that there are rural urban differences related to problems of school education.

Table 7.29
Problems of School Education and Locality of Parents in Thrissur District in 2020

Locality	Level of Problems of School Education			Total	Chi-square Value	P value
	Low	Moderate	High			
Rural	60 (34.9%)	68 (39.5%)	44 (25.6%)	172 (100%)	13.052	0.001**
Urban	21 (16.4%)	69 (53.9%)	38 (29.7)	128 (100%)		
Total	81 (27%)	137 (45.7%)	82 (27.3%)	300 (100%)		

Source: Computed from Primary Data.

Notes: Chi Square Test

. The figures within parentheses refers to Row Percentage,

** denotes 1 % level significance

The level of problems of school education in Thrissur is analysed with the help of level test. Since the P value is less than 0.01, the proportions of level of problems of school education in Thrissur are not equally distributed.

Table 7.30
The Level of Problems of School Education in Thrissur District in 2020

Attribute	Low level (Q1)	Moderate level (Q2)	High level (Q3)	Total	Chi-Square value	P value
Problems of school education	81 (27%)	137 (45.7%)	82 (27.3%)	300 (100%)	20.540	<0.001**

Source: computed from Primary Data

Notes: Level Test, ** denotes significant at 1% level.

It indicates that there are significant differences regarding problems of school education in Kerala. From the Table 7.30, it is observed that 27 percent of parents have low level of problems regarding problems of school education (poor household atmosphere, low educational level of the parents, poor academic performance of child, financial problems, time constraints of parents, lack of motivation, love and affection from family, problems related to school environment and lack of Government support in the form of scholarship). Among parents, 45.7 per cent of them have moderate level of problems regarding problems of school education and 27.3 percent of parents have high level of problems related to school education.

7.5. Effects of Home Environment and School Environment

To explore the effects of students' home environment and school environment on their engagement in learning and satisfaction, and also to test the mediating role of students satisfaction in the relationship between students' school environment and their engagement in learning, has been achieved by testing Co-variance Based Confirmatory Factor Analysis (CB-CFA) and Structural Equation Modelling (SEM) techniques. This contains two parts. Part one deals with Co-variance Based Confirmatory Factor Analysis (CB-CFA) and part two deals with the development of Structural Equation Modelling (SEM).

It also contains an overview of SEM techniques. The summary of hypotheses testing is also given at the end of this chapter. The objective is to explore the effects of students' home environment and school environment on their engagement in learning and satisfaction, and also to test the mediating role of students' satisfaction in the relationship between students' school environment and their engagement in learning. To achieve this objective, Co-variance Based Confirmatory Factor Analysis (CB-CFA) and Structural Equation Modelling (SEM) techniques were employed using IBM SPSS AMOS 21 software package. To test the mediation effect in the model, the bootstrapping procedures were adopted using 1000 bootstrap samples

7.5.1. Co-variance Based Confirmatory Factor Analysis

In statistics, confirmatory factor analysis is a special form of factor analysis, most commonly used in social research. It is used to test whether measures of a construct are consistent with a researcher's understanding of the nature of that construct. Confirmatory factor analysis (CFA) is a multivariate statistical procedure that is used to test how well the measured variables represent the number of constructs. Confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) are similar techniques, but in exploratory factor analysis (EFA), data is simply explored and provides information about the numbers of factors required to represent the data. In exploratory factor analysis, all measured variables are related to every latent variable. But in confirmatory factor analysis (CFA), researchers can specify the number of factors required in the data and which measured variable is related to which latent variable. Confirmatory factor analysis (CFA) is a tool that is used to confirm or reject the measurement theory.

7.5.2. Assessment Criteria of CB-CFA Models

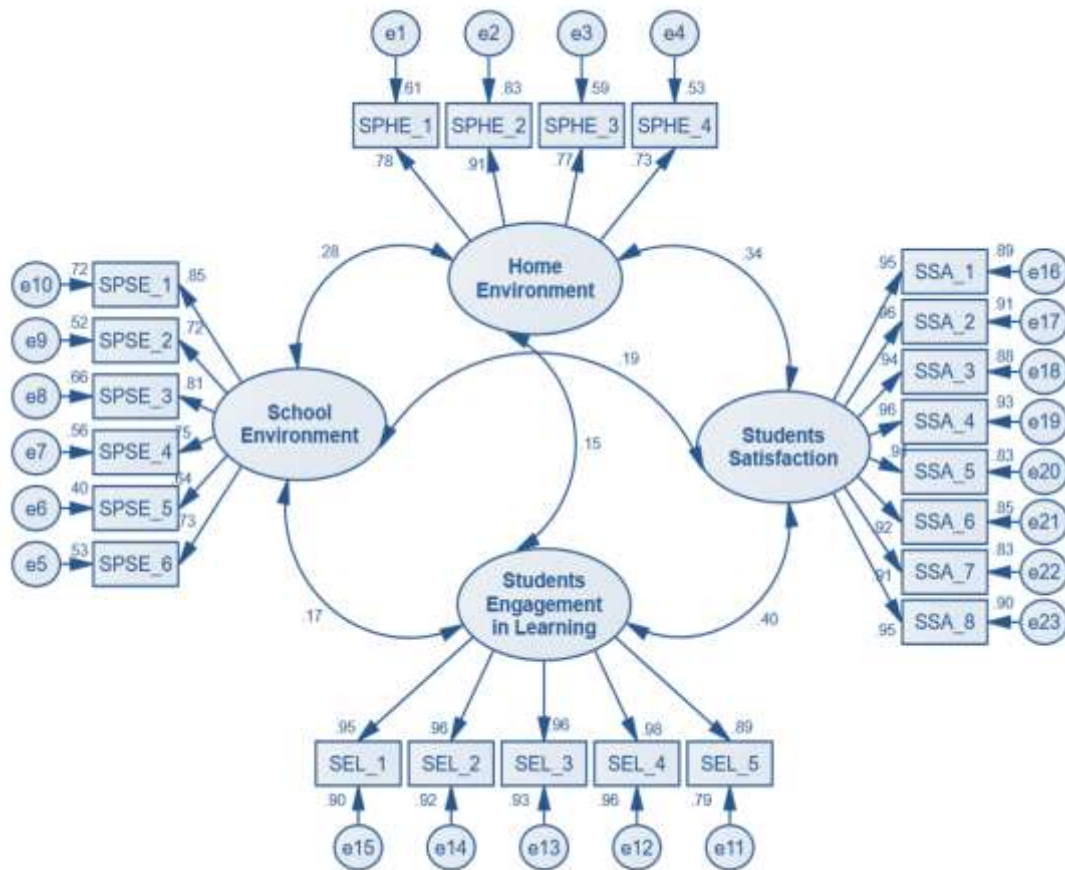
It is necessary to establish Construct validity (convergent and discriminant validity) as well as reliability (Composite reliability) for doing Confirmatory factor analysis. Confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists (Suhr, 2009). The factors have to demonstrate adequate validity and reliability. The following tools are employed for the assessment of the measurement model:

- (1) Composite Reliability (CR)
- (2) Construct validity
 - (a) Convergent Validity
 - (b) Discriminant Validity.

1. Composite Reliability (CR) is a measure of the overall reliability of a construct. The value varies between 0 and 1. Values of composite reliability of >0.7 and above are good (Hair et al., 2010). Values less than 0.6 indicate lack of internal consistency.
2. Construct validity: construct validity can be measured by two methods, convergent validity and discriminant validity
 - (a) *Convergent Validity* – the items that are indicators or the observed variables in a specific construct should converge or share a high proportion of variance with each other. According to Hair et. al, (2010), if there are convergent validity issues in the validity examination, then it indicates that the latent factor is not well explained by the observed variables. Malhotra et. al, (2001) observe that AVE is a strict measure of convergent validity even more conservative than CR. The researcher has used the average variance extracted (AVE) for measuring convergent validity for this study. The value of AVE is calculated by using standardized factor loadings. The threshold value of AVE is >0.5 (Hair et. al., 2010). Item factor loadings are also a measure to identify convergent validity (Hair et. al., 2010). The threshold value of standardized factor loading for establishing item validity is >0.5 for this study (Hair et. al., 2010). If the standardized factor loadings and AVE values are more than 0.5, it indicates adequate convergence.

(b) *Discriminant validity* is the extent to which a construct is truly distinct from other constructs. High discriminant validity indicates that a construct is unique and captures phenomena that are not represented by other constructs. If the discriminant validity examination does not yield the required results, it indicates that the variables correlate with variables of the other constructs to a large extent i.e. the latent variable is better explained by some other variables than by its own observed variables. The researcher has used the Fornell and Larcker (1981) criterion which is a conservative method of assessing discriminant validity. It compares the square root of AVE with the latent variable correlations. The square root of AVE of each construct should be greater than its latent variable correlation with any other constructs. By this, discriminant validity can be established.

Figure 7.1
Confirmatory Factor Analysis for students' Home Environment, School Environment, and Engagement in Learning and Students Satisfaction Constructs



Source: Prepared by the Investigator

Table 7.31
Model Fit Indices for the CFA Model and Student Satisfaction

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.524	0.000	0.955	0.990	0.964	0.051
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Computed from Primary Data

Table 7.31 represents the CFA model fit indices to assess the overall model fit. The value of Chi-Square to the degrees of freedom ratio for an acceptable model should be less than 5. In this case, the value is 3.524 which is very well within the suggested maximum value.

Table 7.32
Final Reliability and Validity of CFA Model and Student Satisfaction Constructs

Constructs	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Students Perception of Home Environment (SPHE)	SPHE 1	0.78	0.89	0.64	0.88
	SPHE 2	0.91			
	SPHE 3	0.77			
	SPHE 4	0.73			
Students Perception of School Environment (SPSE)	SPSE 1	0.85	0.88	0.57	0.89
	SPSE 2	0.72			
	SPSE 3	0.81			
	SPSE 4	0.75			
	SPSE 5	0.64			
	SPSE 6	0.73			
Students Engagement in Learning (SEL)	SEL 1	0.95	0.97	0.90	0.98
	SEL 2	0.96			
	SEL 3	0.96			
	SEL 4	0.98			
	SEL 5	0.89			
Students Satisfaction (SSA)	SSA 1	0.95	0.96	0.88	0.98
	SSA 2	0.96			
	SSA 3	0.94			
	SSA 4	0.96			
	SSA 5	0.91			
	SSA 6	0.92			
	SSA 7	0.91			
	SSA 8	0.95			

Source: Computed from Primary Data

Note: ** denotes significant at 1% level

The RMSEA score is 0.051, well below the accepted threshold score of 0.08. Moreover, the GFI and AGFI values are above 0.9 and CFI is above 0.9 for which 1.0 indicates exact fit. Thus, the model is a good fit and can be considered for further analysis and model building.

From Table 7.32 it is inferred that all the factor loadings are above the threshold level of 0.5 which establishes the item validity of the constructs. The researcher has adopted the Cronbach's Alpha reliability test after the full scale data collection. The final values of Cronbach's Alpha are found to be greater than 0.9 which confirms the reliability of the constructs employed to measure the construct. The Composite Reliability values are found to be greater than 0.9 which indicates that all the constructs have a high level of internal consistency reliability. The Average Variance Extracted (AVE) values are also found to be above the recommended threshold value of >0.5. Thus, it is inferred that all constructs have high levels of convergence. As all the criteria meet the recommended value, the data is suitable for further analysis and SEM development.

Table 7.33
Discriminant Validity Among the Students' Home Environment, School Environment, Engagement in Learning and Students Satisfaction Constructs

Constructs	Students Perception of Home Environment	Students Perception of School Environment	Students Engagement in Learning	Students Satisfaction
Students Perception of Home Environment	(0.80)			
Students Perception of School Environment	0.28	(0.75)		
Students Engagement in Learning	0.15	0.17	(0.95)	
Students Satisfaction	0.34	0.19	0.40	(0.94)

Source: Computed from Primary Data

Table 7.33 displays the square root of AVE values and inter construct latent constructs correlations. Values in brackets are the square root of AVE scores which

must be greater than the inter construct latent variable correlation values to establish the non-existence of any relationship. From the table 7.33, it is observed that no relationship exists among the constructs and discriminant validity for service quality constructs is established.

7.5.3. Co-variance Based Structural Equation Modeling techniques

Structural equation modeling (SEM) is a multivariate statistical analysis technique that is used to analyse the structural relationships. It is the combination of factor analysis and analysis. A lot of researchers preferred this method because it estimates the multiple and interrelated dependence in a single analysis. In this analysis, mainly two types of variables are used, that is, endogenous variables (dependent variable) and exogenous variables (independent variable). Covariance based structural equation modelling is a confirmatory approach and is mainly used for hypotheses testing and for the analysis of a structural theory bearing some phenomenon. In this study, IBM SPSS AMOS 21 software package was used to run the Structural Equation Modelling. In order to develop SEM, the following hypotheses are to be tested.

Table 7.34
Hypotheses for Model Building

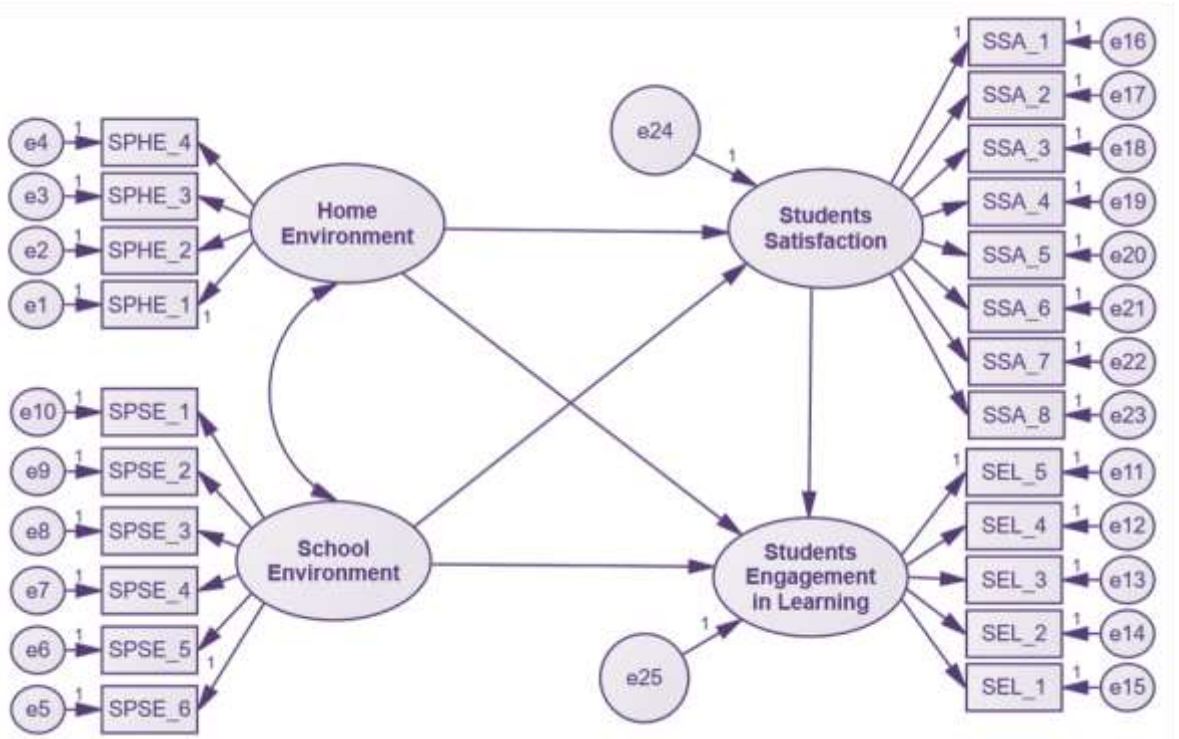
Hypotheses No.	Hypotheses of model building
SM.H1	Home environment of school students has a positive effect on students' satisfaction
SM.H2	School environment of school students has a positive effect on students' satisfaction
SM.H3	Home environment of school students has a positive effect on students engagement in learning
SM.H4	School environment of school students has a positive effect on students engagement in learning
SM.H5	Students satisfaction has a positive effect on students engagement in learning
SM.H6	Students satisfaction mediates in the relationship between school environment and students engagement in learning

Source: Computed from Primary Data

Note: SM.H1 to SM.H6 indicates Structural Model Hypotheses

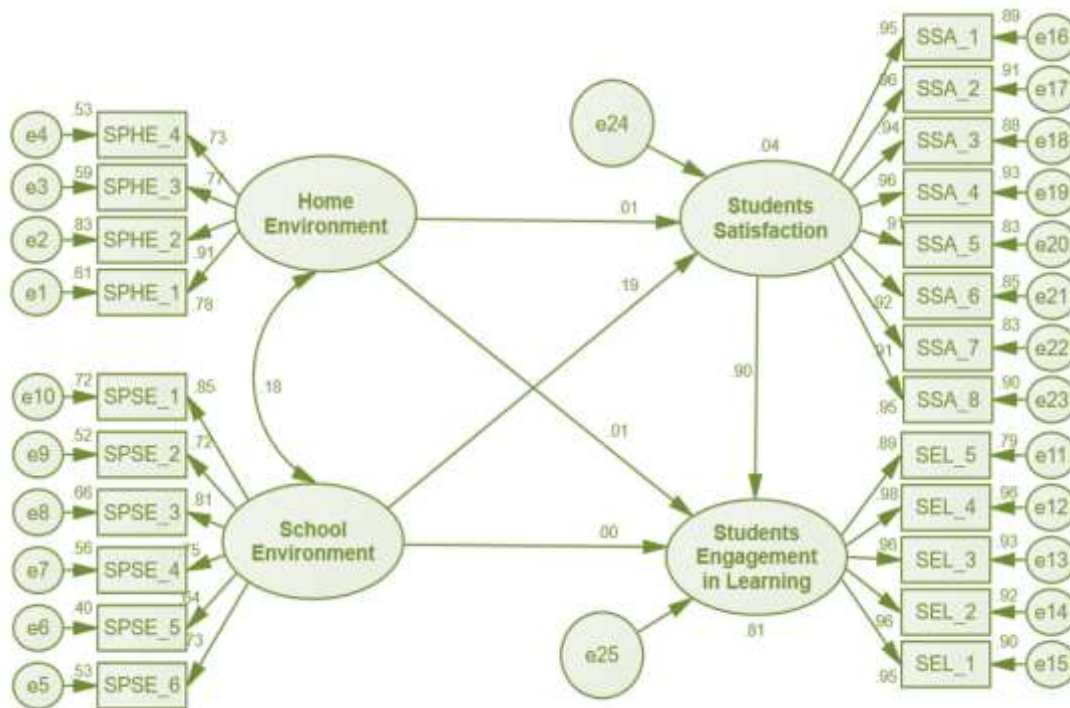
Figure 7.2

Hypothesized Conceptual Model for School Students in Kerala (Effects of Students' Home Environment and School Environment on their Engagement in Learning and Satisfaction)



Source: Prepared by the Investigator

Figure 7.3
Tested Structural Equation Model (Effects of Environment on Students’
Satisfaction and their Engagement in Learning)



Source: Prepared by the Investigator

Table 7.35 represents the SEM model fit indices to assess the model fit. The value of Chi-Square to the degrees of freedom ratio for an acceptable model should be less than 5. In this case, the value is 3.187 which is very well within the suggested maximum value.

Table 7.35

Fit Indices for the Structural Equation Model for School Students in Kerala

MODEL	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.187	0.000	0.924	0.901	0.941	0.066
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Computed from Primary Data

The RMSEA score is 0.066, below the accepted threshold score of 0.08. Moreover, the GFI and AGFI values are above 0.9 and CFI is above 0.9 for which 1.0 indicates exact fit. Thus, the SEM model is a good fit.

Table 7.36

Path Analysis on Student’s Satisfaction

Constructs path index			Standardized co-efficient (Beta)	R ² Value	Critical Ratio	P value
Students Satisfaction	←	Home Environment	0.01	0.04	0.977	0.841 ^{NS}
Students Satisfaction	←	School Environment	0.19		2.974	<0.001 ^{**}
Students Engagement in Learning	←	Home Environment	0.01	0.81	0.247	0.847 ^{NS}
Students Engagement in Learning	←	School Environment	0.00		0.254	0.947 ^{NS}
Students Engagement in Learning	←	Students satisfaction	0.90		7.64	<0.001 ^{**}

Source: Computed from Primary Data

Notes: ** indicates significant at 1% level; NS denotes Not Significant

7.5.4. Results of Path Analysis and Hypotheses Testing

The standardized beta coefficient of home environment of the school students on their satisfaction is 0.01 that represents the partial effect of home environment on

student's satisfaction, holding the other path variables as constant. The estimated positive sign implies that such effect is positive but the P value indicates that this effect is not statistically significant. It indicates that home environment of school students does not have any effect on students' satisfaction. The standardized beta coefficient of school environment of the students on their satisfaction is 0.19 represents the partial effect of school environment on student's satisfaction, holding the other path variables as constant. The estimated positive sign implies that such effect is positive and students' satisfaction would increase by 0.19 for every unit of standard deviation increase in school environment and this coefficient value is significant at 1% level. It reveals that school environment of school students plays a role in students' satisfaction.

The standardized beta coefficient of home environment of the school students on their engagement in learning is 0.01 represents the partial effect of home environment on student's engagement in learning, holding the other path variables as constant. The estimated positive sign implies that such effect is positive but the P value indicates that this effect is not statistically significant. It shows that home environment of school students does not lead to their engagement in learning.

The standardized beta coefficient of school environment on student's engagement in learning is 0.00 represents that students' school environment does not have any effect on engagement in learning. The study reveals that the students' satisfaction has a positive effect on their engagement in learning. The standardized beta coefficient of students' satisfaction on their engagement in learning is 0.90 which represents the partial effects of students' satisfaction on their engagement in learning, holding the other path variables as constant. The estimated positive value implies that such effect is positive and the students' engagement would increase by 0.90 for every unit of standard deviation increase in students' satisfaction and this coefficient value is significant at 1% level.

The explanatory power of the structural equation model is assessed by evaluating the R^2 value of the dependent constructs. The R squared coefficient measures the percentage of variation that is explained by the model (See Model figure). The coefficient of determination for students' satisfaction, (R^2) is 0.04. This value implies that only 4% of the variation in students' satisfaction is explained by students' home environment and school environment. This value leads to the

conclusion that other independent variables are highly necessary for predicting students' satisfaction besides these independent constructs like students' home environment and school environment. The remaining 96% of the variation in students' satisfaction is not explained by these independent constructs. It means that satisfaction of the school students in Kerala does not depend greatly upon their home environment and school environment.

The coefficient of determination for students' engagement in learning (R^2) is 0.81. This value implies that about 81% of the variation in students' engagement in learning is explained by students home environment, school environment and students satisfaction. This value leads to the conclusion that other independent variables are needed for predicting students' engagement in learning construct besides these independent constructs like students home environment, school environment and students satisfaction. The remaining 19% of the variation in students' engagement in learning is not explained by these independent constructs. It is also found that students' engagement in learning is mainly depends on their satisfaction level, not from their school and home environments.

Table 7.37
Mediation Testing in the Model (Direct and Indirect Effect Path) Using Bootstrapping Procedure (Summary of Estimates)

Independent construct	Mediation construct	Dependent construct	Direct effect	Indirect effect (Mediation effect)	Result
Students School Environment	Students Satisfaction	Students Engagement in Learning	0.00 ^{NS}	0.17**	Full mediation

Source: Computed from Primary Data

Notes: ** Significant at 1% level;

NS denotes Not-significant;

Indirect effect values are computed through bootstrapping procedure with 1000 bootstrap samples

Table 7.37 reveals both direct and indirect effects in the model. The direct effect of students school environment and students engagement in learning, and indirect effect (mediation effect) of students school environment and students engagement in learning via students satisfaction can be identified in the model. The test results show that there is no significant direct effect between students school environment and students engagement in learning. Whereas, there is significant

indirect effect (mediation effect) between students school environment and students engagement in learning via students satisfaction. Full mediating effect can be seen in the model in between students school environment and students engagement in learning via students satisfaction since the direct effect in the model is insignificant and mediation effect is significant. The mediation effects of this path is examined using bootstrapping (1000 bootstrap samples) methods with the help of IBM-SPSS-AMOS-21 software package. The result indicates that for attaining better learning engagement among school students in Kerala, the attainment of their satisfaction in study is inevitable factor. Without attaining the students' satisfaction, the efforts invested for making the engagement of students in their learning will be waste of effort.

Table 7.38
Result Summary of Hypothesis Testing

Hypotheses No.	Hypotheses of the model developed	Result of Hypotheses testing
SM.H1	Home environment of school students has a positive effect on students' satisfaction	Not Supported
SM.H2	School environment of school students has a positive effect on students' satisfaction	Supported
SM.H3	Home environment of school students has a positive effect on students engagement in learning	Not Supported
SM.H4	School environment of school students has a positive effect on students engagement in learning	Not Supported
SM.H5	Students satisfaction has a positive effect on students engagement in learning	Supported
SM.H6	Students satisfaction mediates in the relationship between school environment and students engagement in learning	Supported

Source: Computed from Primary Data

Note: SM.H1 to SM.H6 indicates Structural Model Hypotheses

In this analysis, six hypotheses including mediation hypothesis were developed and tested using CB SEM techniques and a model for school students in Kerala was developed based on the results of the hypotheses testing (table 7.38). Three hypotheses are supported and three hypotheses are not supported in this model. It is hypothesised that home environment of school students do not have positive effect on students' satisfaction, school environment of school students has a positive effect on students' satisfaction, home environment of school students do not have positive effect on students engagement in learning, school environment of school

students do not have positive effect on students engagement in learning, students satisfaction has a positive effect on students engagement in learning and students satisfaction mediates in the relationship between school environment and students engagement in learning. The fit indices show that both CFA and SEM models are a good fit.

Findings and Policy Recommendations

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- 8.9. *Areas for Further Research*

8.1. Introduction

The present study analyzed the recent trends of school education in India and Kerala. The expenditure on education has increased rapidly and many initiatives have been undertaken from time to time to improve access to quality schooling particularly for the economically and socially disadvantaged sections of the society. There happened a lot of improvements in the school education system but still there needs more structural transformations and changes to be brought about looking into the future of Indian education system. When compared to major states in India, Kerala is far ahead in terms of literacy rate but its quality of education is poor. In this context, the present study attempted to examine the school education in Kerala by keeping in mind the following objectives. They are:-

1. To examine the trends of expenditure on school education in India and Kerala.
2. To compare the level of disparity on expenditure on school education in India and Kerala.
3. To identify the determinants of household expenditure on school education in Kerala.
4. To examine the student satisfaction of school education in Kerala.
5. To analyze the problems related to school education in Kerala.

8.2. Expenditure on School Education in India and Kerala

The trends in the share of expenditure on education in total GDP are an important indicator of public expenditure on education. It is measured by various indicators such as GDP at current prices at various years, expenditure on education, spending on elementary education and education as a total percentage of GDP. There was a considerable improvement in GDP at current prices, expenditure on education and expenditure on elementary education. But compared to these positive trends, the expenditure on education as a % of GDP in the case of school education and that of elementary education do not show an increase and in some years it shows a stable position and in some cases it shows a negative trend in the case of elementary education. Thus there is a need to increase the percentage share of education expenditure to total GDP, only then there will be an improvement in this sector.

Household expenditure on education is an important component of economic growth and thus sustainable development. In the case of school education at all levels there was an increase in the growth rate of household expenditure on education than higher education. The expenditure on education by the urban households is entirely different from that of rural households. The expenditure on school education in the urban areas is more than double at the rural areas. In the case of higher education, this difference is not much wider compared to that of school education. The differences in male and female are also high at all levels. At the school level, expenditure is more at the higher secondary and secondary levels. Households in urban areas spent more on different items of expenditure than the rural households. Both in rural and urban areas households spent more on male than female population. Uniform, books, private coaching & stationery occupies major share by households both in rural and urban areas. Among the items of expenditure stationery, books, exam fee and other fees are the major items of expenditure. There exist rural urban differences, gender differences and item wise differences in terms of student expenditure on education in India.

The government of Kerala spends a high percentage of expenditure for the development of the education sector. Among the Indian states Kerala ranks first and in case of female literacy also the state is ahead and has made a tremendous progress. The male-female gap also narrowed and the state holds first place in female literacy with 92 per cent. There was not much increase in every year in the enrollment rate. There are no much differences in the enrollment of boys and girls also. There are

differences in enrollment rate at different levels of school education. The dropout rate is comparatively low at high school level. The lower dropout rate in the school education in Kerala is definitely an indicator of educational attainment and the students out of schools in the state reach at zero levels.

The per-capita expenditure per student by the government is also increasing. The effect of the rise in expenditure by the government can be well revealed or reflected through the indicators like number of schools, enrollment, dropout rates, examination results and so on. But spending on education as a percentage of total expenditure in Kerala shows a declining trend over the years. The nominal and real per capita expenditure on school education showed a positive trend. Compared to other states in India, Kerala's household expenditure on education on different items of expenditure is remarkable. The amount of expenditure Kerala devoted to the expenditure of their child also improved considerably during the years. Kerala's household expenditure on education is more than that of all-India and expenditure on females is higher than that of males. This is a tremendous and remarkable achievement that Kerala had achieved in the education sector, by bringing about more educational opportunities, access and reducing gender differences than any state in India.

8.3. Disparity of Expenditure on School Education in India

In spite of all these tremendous achievement over years, the education system in India is pestered with a lot of problems. One of the serious problems of Indian education system is increasing inequality of education. The primary problem of Indian education centers on qualitative and quantitative aspects of education and there is no uniformity in the education system. Every state has different education system imparting education in regional language and English. The present education system is exam- oriented or rote learning. Inequality of education is found not only in the state level and in between rural and urban areas. The urban population is more literate than rural population. It is also clear that literacy rate of male is greater than that of females and the differences between male and female population narrowed during the same period.

The differences in male and female enrollment rates are different at different levels of education and the male-female differences at all levels narrowed from 1950-51 to 2015-16. Thus it is clear that enrollment of school students as a good indicator

of school access considerably falls at higher levels of school education. This is due to so many other factors which are personal or home related factors of the student. There are rural-urban differences, in terms of gross attendance ratio and it has not shown any positive increase during these years. There are rural-urban differences, male-female differences in terms of net attendance ratio.

There is improvement in terms of age specific attendance ratio and there are rural-urban differences and male-female differences and different age groups in various years' shows difference in terms of attendance ratio. Educational inputs of elementary schools in India also improved considerably in recent years showing the betterment of school educational infrastructure in the different states of India. There are rural urban differences, state wise differences in terms of household expenditure on education. The states differ in terms of expenditure on education and among them there are also wide rural and urban differences.

8.4. Determinants of Expenditure on School Education in Kerala

Kerala greatly succeeded in promoting learning and ample atmosphere for infrastructure development to provide better education outcome and to reduce drop out and it is the first ever state in India to achieve universal literacy. Both central and local governments played an important role in promoting the school education system. The government of Kerala spends a high percentage of expenditure for the development of the education sector. Schools in Kerala are run by the government or private trusts and individuals. The state has shown a tremendous growth in the number of educational facilities at all levels during the last 50 years.

The capacity of a large number of households to pay for education was increasing due to a number of reasons such as growth in per capita state domestic product (SDP), expansion of job markets both within the country and abroad, inflow of remittances, decrease in the number of children, reduction in household size etc. The household cost of education in Kerala was largely met by the increased external remittances also. But at the same time the data brought out by the 61st round of National Sample Survey shows that on an average, the per capita expenditure on education by the rural households in Kerala was more than double the national average (Rs.41 for Kerala against Rs.18 for India). Regarding the per capita educational expenditure in rural areas Kerala ranked third after Haryana and Punjab. But urban Indian people spend more than urban Keralites (Rs.74 for India and Rs.66

for Kerala). The rural-urban differences in educational spending by households were much less was also high in Kerala compared to other Indian states. The proportion of households spending on private tuition was also high in the state.

Among all determinants of household expenditure on education, income is the most important factor. The qualities of human and physical infrastructure available in schools are regarded as the school related factors determining the household's decision to invest on their child's education. Social, economic and cultural reasons, gender differences and political factors also determine government's decision to invest on education. The macro-economic variables that determine the household expenditure on education in India are Gross Domestic Product of India (GDPI), Per Capita Income of India (PCII), Total Number of Schools in India (TNSI) and Government Expenditure on Education in India (GEEI). In Kerala they are GSDPK, PGDSPK, PCIK, TNSK and TRK. All these determinants increased during the same period tend to increase the dependent variable, i.e. household expenditure on education. There is a statistically significant relationship among the selected independent variables and household expenditure on education in India. Household expenditure on education can explain the productive capacity of the country in terms of Gross Domestic Product of India (GDPI), and per capita Income of India (PCII).

A large set of state level macro-economic variables such as gross state domestic product of Kerala, per capita government expenditure on education, per capita income of Kerala, total number of schools in Kerala and the amount of total remittances to Kerala are the determinants of government expenditure on education in Kerala. There is a positive relationship between government expenditure on education and the determinants or independent variables. In Kerala it is seen that household expenditure on education positively affects productivity in terms of per capita income and state domestic product. There is a positive and statistically significant relationship between household expenditure on education and the determinants or independent variables. The results of linear logarithmic regression equations confirm the positive influence of independent variables on the household expenditure on education in India. The values also reveal the importance of government expenditure on education in India as it is a complimentary to household expenditure on education. The government expenditure on education in Kerala is positively related to gross state

domestic product, per capita gross state domestic product, per capita income, total number of schools and total remittances to Kerala.

The regression coefficients show that there is a positive relationship between dependent and independent variables. If the gross state domestic product increases government expenditure on education also increases. The increase in per capita gross state domestic product, total number of schools, per capita income and total remittances to Kerala also influence government decision to spend more on education. The positive relationship and complementarity are also reflected through the highest values for R^2 and adjusted R^2 . The F ratio is also high reflecting the high association and relationship between variables.

8.5. Household Expenditure on School Education in Kerala

Parental income is one of the important determinants of child's education. The major source of income in families is father's work followed by mother's work in families. The major reason for selecting school is for getting good quality of education and the least preference is given by parents to good infrastructure in the selection of school. The majority of the respondents save for the purpose of education of their child, showing the importance of education they give to their child and the least purpose is for retirement life and old age. The major source of financing for school education is household income and the least is children's own contribution.

The study found out that a significant and strong relationship exists between income and types of household expenditure from socio-economic perspectives. The household budgets of parents were studied to understand how they are spending or giving importance to various items of expenditure. Parents' budget can be generally classified into food items and non-food items. It also includes expenditure on housing, health, transport and entertainment, education, clothing and footwear. Parents on an average spent most of their income on housing maintenance or housing related activities. The second highest annual average expenditure of parents comes under the category of food items. Followed by food items, non-food items occupy the third position. Spending on education also occupies an important position as today's parents are more interested in spending for their child's education. Transport and entertainment occupy the fifth position followed by health and medical needs and expenses for clothing and footwear. Thus the average annual household expenditure of parents gives an account of the spending pattern of families and the top order

priorities in which they spend. It also throws light into the trend and pattern of household budget. The expenditure pattern of parents of CBSE schools is comparatively higher followed by aided and state level schools. But regarding all types of schools, parents incur more expenditure on housing followed by food items, non- food items, education, transport and entertainment, health and medical needs and clothing and footwear respectively.

From the school related factors, teacher's encouragement is the most influencing factor followed by need of individual attention, challenge of competition in studies, overload of homework and studies, challenge of present examination system and problem of balancing school and home. It shows that most of students getting encouragement from their teachers followed by the individual attention from school and the students are part of the challenges of healthy competition in studies. Taking into consideration the factors of students' perception on school environment, male students are more influenced by the factor teacher's encouragement (4.39) followed by need of individual attention (4.03), challenge of competition in studies (3.25), overload of homework and studies (3.12), challenge of present examination system (3.11) and problem of balancing school and home (2.97). In the case of female, teacher's encouragement (4.57) is the most influenced factor followed by need of individual attention (4.22), challenge of competition in studies (3.08), overload of homework and studies (2.98), challenge of present examination system (2.90) and problem of balancing school and home (2.88). Students of 14 to 15 age groups are happier with the school related factors like teacher's encouragement, need of individual attention and challenge of competition in studies. The 16 to 18 age group students are happier with the factors like overload of homework and studies, problem of balancing school and challenge of present examination system.

All the factors of student engagement in learning like understanding the concepts, listening classes properly, enjoy learning new things, attention in class and interested in school work are below the average level (>3 , 3 is the test value) which indicates the importance of improving student engagement in learning. There are differences in the case of male and female students regarding all the factors of student engagement in learning. It is clear that female students are more engaged in learning regarding all aspects than male students. Students of 14 to 15 age groups are more engaged in listening classes properly and attention in class than the 16 to 18 age

group. The 16 to 18 age group students are more engaged in understanding the concepts, listening classes properly, enjoy learning new things and are interested in school work than 14 to 15 age groups. Students' engagement in learning is more for 14-15 age group compared to 16-18 age groups of students.

All the factors of student satisfaction need to be improved in schools. Based on mean rank, it is inferred that the area in which students are more satisfied are approach of teachers followed by quality of teaching, subject competency of teachers, classroom and school environment, teaching style of teachers, academic achievement, present syllabus and curriculum and the least satisfied are the school infrastructure. The satisfaction level of both students is below the average value indicating the importance of improvement in the school and teacher related factors. Students of 14 to 15 age groups are more satisfied in listening classes properly and attention in class than the 16 to 18 age group. High level of student satisfaction is among girl students compared to boy students.

It is clear that majority of parents send their children to aided schools, i.e. 38.7% and next to government schools, i.e. 36% and followed by CBSE, i.e.20.3% and insignificant proportion to other schools. Majority of the students are studying in 9th standard, i.e.35% and 10th standard, i.e. 34.3% and 28% of the students fall under the category of plus two students. Only 2.7% are studying in plus one.57.3% of the parents, majority of the respondents live in rural areas and 42.7% lives in urban areas. The occupation pattern of the father shows a mixed picture and the majority doing business, 21.3%, followed by government employees, i.e. 19.7%, 18.3% other occupations, 13.7% private employees and the least proportion, i.e. only 7% are professionals.

Parents are not providing good parental care and support to their children at home. All the mean values of parental care and support show that more parental involvement is needed at home. Based on mean rank, it is inferred that the most preferred factor is support child's learning at home followed by spending a lot of time with the child, motivate child's learning at home, providing facilities for better learning at home and good relationship with the child respectively. There is no significant difference among various age group of parents regarding their perception towards the parental care and support factors such as spending time with the child,

support child's learning at home, good relationship with the child and motivate child's learning at home.

Parents are average in utilizing the free and compulsory education provided by the government. Parents of different age groups are not giving much importance to the free and compulsory education policy of the government. There are significant differences among parents on the basis of school types in which their child is studying, regarding free and compulsory education. Parents of CBSE School going children are more favouring free and compulsory education followed by government and aided schools' parents respectively.

Parents living in urban areas are more in favour of free and compulsory education than parents living in rural areas. Thus, there exist rural urban differences regarding free and compulsory education. Based on school type of children there are differences among parents related to free and compulsory education in Kerala. Based on standard in which their child is studying there are no significant differences among parents related to free and compulsory education in Kerala.

Parents are not satisfactory about the all-promotion policy of government that is practiced and followed in the schools of Kerala. There are no statistically proven differences between different age group of parents regarding all the dimensions of all promotion policy, there are significant differences among various caste groups of parents regarding all promotion policy in Kerala. Hindu parents are much in favour of the different dimensions of all promotion policy followed by Muslims and Christian parents. Parents of government school going children are more favouring all promotion policy comparatively followed by aided and CBSE parents respectively. Parents living in rural areas are comparatively much in support of all promotion policy than parents in urban areas. Income of parents is not a criterion to measure the attitude of parents towards All Promotion Policy in Kerala. Religion wise, caste wise, school wise, standard wise, area wise and income wise there are differences and age wise there are no differences among parents regarding all promotion policy in Kerala

It can be inferred that the most preferred factor of quality of education according to parents are better feedback system followed by good IT infrastructure, parents involvement in school activities, strong student teacher relationship, regular updating of syllabus and curriculum and PTA meeting respectively. Quality of education provided by schools is not satisfactory according to parents indicating the

importance of more changes in all these aspects. There is significant difference among various caste groups of parents regarding these factors of quality of education. Christian parents are more satisfied by the quality of education provided by schools followed by Muslim and Hindu parents. Except OEC category of parents, other categories do not show a positive approach towards the quality of education provided in the schools of Kerala. All the parents, on the basis of class do not have a favourable attitude towards all the dimensions of quality of education in the schools of Kerala. There are significant differences among various category groups of parents regarding quality of education in Kerala.

Regarding almost all the features of quality of school education, there are much differences seen between CBSE and government schools on the one hand, and CBSE and aided schools on the other. Both government and aided schools reflect same picture that focus on the importance of improvement in quality of education provided by these schools. Parents living in urban areas are more satisfied by the quality of education provided by schools than parents living in rural areas by taking into account all the dimensions.

Thus it is statistically proved that based on school type of children there are differences among parents related to quality of education provided by schools. It is also clear that most of the parents are not satisfied by the quality of education provided by schools except in CBSE schools. Parents living in urban areas are more satisfied by the quality of education in schools than parents living in rural areas.

8.6. Student Satisfaction and Problems in School Education

The most relevant problem is poor household atmosphere followed by time constraint of parents, lack of government support in the form of scholarship, problems related to school environment, financial problems, low educational level of the parents, financial problems, and poor academic performance of child and lack of motivation, love and affection from family respectively. These problems are statistically significant and demands urgent attention.

According to OEC parents the most important problem of school education in Kerala is the time constraints of parents, to OBC category of parents it is lack of government support in the form of scholarship, to SC/ST parents it is low educational level of the parents and for other categories it is poor household atmosphere. It is also

statistically proved that all the other categories of parents including OBC, SC/ST and others are not facing much problem related to school education in Kerala.

According to government school children's parents, the most important problem is lack of government support in the form of scholarship, to aided school children's parents it is time constraints of parents and in the opinion of CBSE school children's parents it is poor household atmosphere of parents indicating the importance they have given to their child irrespective of the financial background. This clearly throws light into the fact that majority of the students studying in CBSE schools are not financially well to do, but parents are willing to send their children to CBSE schools irrespective of their financial background. There are so many problems related to school education among parents but comparatively, the problems are more in the case of parents living in urban areas.

There is no significant direct effect between students school environment and students engagement in learning. Whereas, there is significant indirect effect between students school environment and students engagement in learning via students satisfaction. Home environment of school students do not have positive effect on students' satisfaction. School environment of school students has a positive effect on students' satisfaction. Home environment of school students do not have positive effect on students engagement in learning. School environment of school students do not have positive effect on student's engagement in learning. Student's satisfaction has a positive effect on student's engagement in learning. Student's satisfaction mediates in the relationship between school environment and students engagement in learning

8.7. Policy Implications and Recommendations

- (1) The government expenditure on school education is sub-optimum in India as well as in Kerala. Therefore, it should be enhanced with respect to the recommendations of the Kothari commission. The present research asserts the recommendations of the Kothari commission and recommends that government should spend at least 6 percent of the GDP towards education.
- (2) The government expenditure on education should be properly balanced between school education and higher education. The present study proposes that government should spend at least 3 percent of the GDP on school education in India.

- (3) The inter-state disparity on expenditure on school education is very high. Therefore government should give more attention to the weak states and allocate more expenditure into their school education.
- (4) The gross enrollment ratio (GER) is the highest in urban areas. Therefore the establishment of quality schools in remote rural areas is very essential.
- (5) The expenditure of households in rural areas is low when compared to urban areas. Therefore, the government should compensate the expenditure of poor households through more expenditure on schemes and programmes in school education on poor children in rural schools.
- (6) The household expenditure on school education is fluctuating but it has been increasing among the majority of states in India. The privatization is one of the major factors that accelerated the household expenditure on school education in India as well as in Kerala.
- (7) Expenditure on education of parents of children in households of CBSE and ICSE schools are very high. It should be monitored and regulated by the government to optimize the resources and effectiveness of school education in a qualitative and equitable manner.
- (8) The government should take more care on school education by constituting specialized research institutions on research in school education.
- (9) Based on the findings, present research argues that there is a positive relationship between government expenditure on education and household expenditure on education. It will reflect in the quality of school education. Therefore, government should enhance the expenditure on school education as at least 3 percent of the GSDP.
- (10) The expenditure on school education must be based on the principles such as equity and effectiveness. It may be attained through the systems such as incentive mechanisms, efficiency in allocation of resources and monitoring systems.
- (11) There is a positive relationship between household expenditure and school education expenditure of the government in Kerala. They will complement each other. Therefore government should increase expenditure on school education in Kerala.

- (12) The government expenditure should be more allocated on the rural poor children. Furthermore, it should be on female children and children in schools from bottom-most strata of the society.
- (13) The remittances into Kerala have a crucial role in the expenditure of parents' on school education and vice versa. Their income has a pivotal role in the human capital formation of Kerala and vice versa. Therefore the government should take more care on the problems of migrants from Kerala.
- (14) All the age groups of parents give parental care and support to their children but it is not above average level or satisfactory. It clearly indicates that more parental involvement, care and attention are needed from the part of parents for the educational attainment of their child as home is the first school of every child.
- (15) The quality of education provided by schools in Kerala is not satisfactory. It points out the government should create regulatory mechanisms to improve and monitor the quality of school education in Kerala.
- (16) It is the responsibility of the government to make it more feasible or accessible to the parents by making free and compulsory education more effective
- (17) It seems that all-promotion policy would not be helpful. This research argues that gradual introduction of examination system in schools will improve the equality of school education in Kerala.
- (18) There are rural and urban disparities among parents regarding all the aspects of school education in Kerala indicating the importance of providing more educational access and equity in rural areas in the establishment of schools and its quality maintenance.
- (19) Government should enhance expenditure on school education to alleviate the problems of school education
- (20) Government should constitute a board to control and evaluate the problems of school education in the CBSE and ICSE schools in the state.
- (21) Apart from government, school authorities and households have crucial role in determining the quantity and quality of school education in Kerala. Therefore they should be innovative to survive and surmount in school education in the state.

8.8. Concluding Observations

The present study analyzed the trends in expenditure on education in the world and found out that India's expenditure on education is low compared to the rest of the world. The households are ready to spend for their children irrespective of their financial background. In India, the consumer expenditure increases from year to year and education is one among the important items for which people spend. It is clear from the state wise analysis of household expenditure on education in India that states differ in terms of expenditure on education and among them there are also wide rural and urban differences.

Spending on education as a percentage of total expenditure in Kerala shows a declining trend over the years. In spite of high improvement in the social sector Kerala's investment in overall education sector shows a slow downfall which shows that the state is unable to invest more on education in the coming future. In Kerala there are vast differences in terms of primary, upper primary, secondary, higher secondary education in rural and urban areas. On the basis of all-India level this is the same. But compared to all- India level the expenditure at all levels of education and at all areas are higher in Kerala except in urban areas. In urban areas, the expenditure on school education at all broad levels is higher at all-India level than in Kerala. The comparison of the determinants of expenditure on education also implies the fact that there are some forces or factors which increase the expenditure on education. Investing in education both at the public and private level can enhance productive capacity of India as indicated by the increase in the independent variables or determinants of household expenditure on education in India. In the case of Kerala's education sector, it is seen that household expenditure on education positively affects productivity in terms of per capita income and state domestic product. The studies on household expenditure on education clearly reflect the idea that it is not only the government but also the individual households that contribute to national income.

The study also analyzed the school education in Kerala by analyzing the views and perspectives of various stakeholders of school education and reached out important conclusions. All these findings point out the importance of improving the school education system in Kerala by looking into more policy changes in the future. The quality of education in the schools of Kerala is yet to be improved despite the tremendous achievement Kerala attained in the school education sector. The parents

are looking for more improvement or changes in the educational standards of their children and students are not actively engaged in learning and they lack proper parental care and support from their home environment. All these different aspects of school education throw light into the need of importance of structural changes or transformation in the system itself to bring about more qualitative changes in the future.

8.9. Areas for Further Research

The present study studied important economic aspects of school education like quality of education, determinants of expenditure education, problems of school education and expenditure on education from the different perspectives of different stakeholders. But the study can be extended to other areas of school education. There are further scope for more studies in the area of school education in other states and comparing it with the Kerala state and inter-district comparisons of different aspects of school education are yet to be explored. As the economics of school education in Kerala is a wide and general area, further research can be limited and focused on certain areas or certain aspects of school education. The study of school education is very important as this is the most significant turning point of every child. It is to be properly planned and executed for the knowledge economy to bring about more intellectuals or the so called human capital for the economic development of the nation.

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Appendices

Appendix I

QUESTIONNAIRE FOR PARENTS

1.1 Social Characteristics

1. Name (Optional) :
2. Age : 31-40 41-50 51 and above
3. Religion:
 - Hindu Christian Muslim Others
4. Caste:
 - OEC OBC SC ST Others

1.2 Educational Characteristics

5. Educational Qualification of Father:
 - Below SSLC SSLC Plus Two Graduation Post Graduation
 - Professional Others
6. Educational Qualification of Mother:
7. Below SSLC SSLC Plus Two Graduation Post Graduation
- Professional Others

1.3 School details of your child

8. Type of school your child is studying
 - Govt. Aided Unaided CBSE ICSE Others
9. Your child is studying:
 - 9th 10th Plus one Plus Two

1.4 Geographical Characteristics

10. Area/ Location: Rural Urban

1.5 Occupational Characteristics

11. Occupation of the Father:
 - Professional Daily- wage earner Govt. Employee Private Employee
 - Business others
12. Occupation of the Mother :
 - Professional Daily- wage earner Govt. Employee Private Employee Business others House wife

1.6 Economic Characteristics

13. Earning Members in your family:
 - One Two More than two
14. Source of Income:
 - Father's work Mother's work Assets Welfare programs other sources
15. The most responsible person for making decisions about your child's educational needs
 - School Administration Teacher Parents Child Themselves
16. Private property if any:
 - Yes No
17. How do you know about your child's school: Tick Appropriate options?

Information About school Environment	Please put Tick mark
Through friends	
Through relatives	
By visiting the school	
The school is nearest to my home	

18. Why you select this school/ sector for your child's Education. Tick appropriate option.

Reasons for selecting the school	Please put Tick mark
The school is nearest to my home	
Good Infrastructure	
Good Quality of education	
Good teachers	

19. Number of people belonging to your household

1-3 4-6 7-9 More than 9

20. Household Budget

a) Average Annual Household Consumption Expenditure

Items	Total Amount spent
Food Items(Total)	
Housing	
Health& Medical needs	
Transport& Entertainment	
Education	
Clothing & Footwear	
Fuel & Energy	
Non-food items(Total)	
Total (Food+Non-food)	

b) Purpose of Savings: Put tick mark against appropriate options only

Purpose	Mark
For emergencies	
House construction/ renovation	
For retirement life/ old Age	
Children's Education	
Children's Marriage	
Other Purposes	

c) Financing for Education (Educational Finance):

Sources for financing	Mark
Household Income/ Savings	
Selling/ Pledging Assets	
From other loans	
Friends/ Relatives	
Children's own contribution	
Education Loan	
Informal Sources of Loan	
Other sources	

21. Parental income is the most determining factor on your child's education

Strongly agree Agree Undecided Disagree strongly disagree

22. (Give tick mark, wherever it is applicable)

	Statements (Items)	S	t	r	D	i	N	e	i	t	h	e	r	A	b	s	S	t	r	e
(1) Parent's caring and support (PCS)																				
PCS 1	You spent time with your child																			
PCS 2	You support your child's learning at home																			
PCS 3	I have good relationship with my child																			
PCS 4	You motivate your child's learning at home																			
PCS 5	You give all facilities to your child's learning at home well																			
(2) Quality of education																				
QOE 1	Your child's school provides strong student-teacher relationship																			
QOE 2	Your child's school provides good feedback system																			
QOE 3	The school regularly updates the syllabus and curriculum																			
QOE 4	School gives importance to extra- curricular activities																			
QOE 5	School has good IT infrastructure																			
QOE 6	School encourages parent involvement in school activities																			
QOE 7	The school conducts parent Teacher Meetings																			
(3) Problems Related to School Education (PSE)																				
PSE 1	Poor household atmosphere affects your child's academic achievement																			
PSE 2	The low educational level of the parents affects your child's education																			
PSE 3	Your child shows poor academic performance																			
PSE 4	Financial problems affects your child's learning																			
PSE 5	The time constraint of parents affects your child's learning																			
PSE 6	Your child lacking motivation, love and affection from your family																			
PSE 7	Problems related school environment also affects your child's learning																			
PSE 8	Lack Govt. support in the form of scholarship badly affects your child's learning																			
(4) Education Policies of the Government (FCE)																				
(1) Free and compulsory education (Right to Education Act)																				
FCE 1	Free and compulsory education (Right to Education Act) of the Government is beneficial because it gives equal opportunities for every child																			
FCE 2	Free and compulsory education (Right to Education Act) of the Government is beneficial because it improves the education system																			
FCE 3	Right to Education Act of the Government is beneficial because it improves the quality of education																			
(2) All Promotion Policy (APP)																				
APP 1	No Detention Policy or All Promotion Policy of the Government is beneficial because it reduces social stigma associated with failure																			
APP 2	No Detention Policy or All Promotion Policy of the Government is beneficial because it lowers dropout rates																			
APP 3	No Detention Policy or All Promotion Policy of the Government is beneficial because it motivates the child																			

Appendix 2

Questionnaire for Students

Student Background/ Characteristics

1. Name (Optional):
2. Age:

14-15 16-20
3. Gender

Boy Girl
4. Total members in your family

3-5 6-9 10-13
5. Your hobbies

Reading Watching TV Dancing Listening to Music

Sports Social Media Others
6. You have supportive classmates/ friends

Strongly agree Agree Undecided Disagree strongly disagree
7. Hobbies of your friends

Reading Watching TV Dancing Listening to Music

Sports Social Media Others
8. The person influences you most

Father Mother Siblings Friends Teachers Relatives Others

2. Students' Perception on Home Environment

9. Your parents play an important role in your education

Strongly agree Agree Undecided Disagree strongly disagree
10. You live in a happy home environment

Strongly agree Agree Undecided Disagree strongly disagree
11. You are going for tuitions

Always Often Sometimes Rarely Never
12. You select this school/ sector/ medium of instruction

Parent's interest your own interest other reasons

3. Students' Perception on School Environment

13. Your teacher encourages you to perform better

Always Often Sometimes Rarely Never

14. As a student you need more individual care from home, school and society

Strongly agree Agree Undecided Disagree strongly disagree

15. You are overloaded with the homework and studies

Strongly agree Agree Undecided Disagree strongly disagree

16. You are challenged with healthy competition in studies

Strongly agree Agree Undecided Disagree strongly disagree

17. You are facing the problem of balancing school and home environment

Strongly agree Agree Undecided Disagree strongly disagree

18. You are challenged with the present examination oriented system of education

Strongly agree Agree Undecided Disagree strongly disagree

(Give tick mark, wherever it is applicable)

Item code	Statements (Items)	Strongly Disag	Disag	Neither agree	Agre	Strongly
(1) Students engagement in learning (SEL)						
SEL 1	You can understand the concepts that what teachers taught in the class					
SEL 2	When you are in class, you listen classes carefully					
SEL 3	You enjoy learning new things in class					
SEL 4	You pay attention in class					
SEL 5	You are interested in the work at school					
(2) Students satisfaction (SSA)						
SSA 1	You have interest in the teaching style of your teachers					
SSA 2	You are satisfied in the subject competency of your teachers					
SSA 3	You are satisfied in the class rooms and overall school environment					
SSA 4	You are satisfied in the approaches of teachers					
SSA 5	You are satisfied in the infrastructure of your school					
SSA 6	You are satisfied in the present syllabus and curriculum					
SSA 7	You are completely satisfied by your academic achievement					
SSA 8	Overall, you are satisfied in the quality of teaching in your school					

Appendix III

Educational Institutions in India

1. **MHRD** (Ministry of Human Resource and Development) was set up in September 26, 1985 mainly aimed for the development of human resources. The Ministry is divided into two departments, Department of School Education and Department of Higher Education.
2. **CABE** (Central Advisory Board of Education) is the oldest advisory body of the Government of India established in 1920 and dissolved in 1923 as a measure of economy and revived in 1935. Its main focus is to advice central and state government in the field of education.
3. **NCERT** (National Council of Educational Research and Training) was set up in June 6, 1961. It is the apex resource organization to assist and advice the central and state governments on academic matters related to school education.
4. **SCERT** (State Council of Educational Research and Training) works to implement the framework set up by the NCERT for admission, curriculum construction, course conduct, guidance, examination and certification.
5. **DIETs** (District Institute of Education Training) play the role of providing academic and resource support at the grass root levels in the areas of elementary and adult education. It was followed to cover 500 districts across India to achieve universalization of education and improving quality of elementary education.
6. **CBSE** (Central Board of Secondary Education) was constituted in 1962 to prescribe conditions of examinations and conduct public examination at the end of grade 10 and 12 and to grant qualifying certificates to the successful students of affiliated colleges.
7. **State and other Boards:** Apart from CBSE, there are nationally recognized Boards like Council for Indian School Certificate Examination (CISE) and the National Institute of Open Schooling (NIOS).
8. **NIEPA** (National Institute of Educational Planning and Administration), established by the MHRD, is a premier organization to deal with capacity building and research in planning and management of education in India. It has its origin in 1962 and conferred as a deemed university status in 2006.
9. **NCTE** (National Council for Teacher Education) was the first step for overhauling the system of teacher education. It came into existence in 1993 with the objective of achieving planned and coordinated development of the teacher education system and improving and maintaining standards in the teacher education system.
10. **CIET** (Central Institute of Education Technology) aimed to promote the utilization of technology including radio, TV, films, satellite communication and cyber media in education. It also aims to widen educational opportunities and promoting equity and improving quality of educational process at school level.
11. **NCPCR** (National Commission for Protection of Child Rights) was set up in March 2007 under the Commission for Protection of Child Rights Act, 2005, an act of parliament. It aims to protect and ensure all laws, policies, programs for solving the problems of children and also examines incidence of mental and physical distress

Appendix IV

Indian Education Policy: A Timeline

1. 1952-53 : Secondary Education Commission
2. 1964-66 (Kothari Commission)
3. 1968 : National Policy on Education (NPE)
4. 1976- 42nd Constitutional Amendment
5. 1986: (New) National Policy on Education (NPE)
6. 1987-88 : Centrally sponsored scheme for Teacher Education
7. 1993- District Primary Education Programme(DPEP)
8. 1995- Mid Day Meal Scheme (MDMS)
9. 2000-02 : Sarva Shiksha Abhiyan (SSA)
10. 2002- Right to Education Amendment
11. 2005- National Curriculum Framework(NCF)
12. 2007-08- Model School Scheme
13. 2008- National Scheme for Incentive to Girls for Secondary Education
14. 2008- Girls' Hostel Scheme
15. 2008- National Means- Cum- Merit Scholarship Scheme
16. 2009- Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
17. 2009-10: Inclusive Education of the Disabled at Secondary stage
18. 2012: Justice Verma Commission on Teacher Education
19. 2014: Beti Bachao Beti Padhao
20. 2014: Scheme to provide Quality Education in Madrasas
21. 2015: Rashtriya Avishkar Abhiyan
22. 2018: Samagra Shiksha Abhiyan
23. 2019: National Education Policy

Appendix V

Table 1
Government Spending on Education in India

Year	HRD Ministry Budget (in Rs crore)	Total Central Budget(in Rs crore)	Gross National Income (GNI, in Rs crore)	HRD Ministry budget (as % of GNI)	HRD Ministry Budget (as % of total central Budget)
2014-15	1,10,351.10	17,94,891.96	104,12,280.00	1.06	6.15
2015-16	96,649.76	17,77,477.04	112,46,305.00	0.86	5.44
2016-17	92,666.65	19,78,060.45	120,34,713.00	0.77	4.68
2017-18	79,685.95	21,46,734.78	128,35,004.00	0.62	3.71

Source: Union Budget, Economic Survey 2017-18

Table 2
Trend of Per Capita NSDP in Selected States (prices (1993/94))

Year	Haryana	Himachal Pradesh	Kerala	Madhya Pradesh	Meghalaya	Orissa	Rajasthan
1990-91	10138	6473	5685	5607	6122	4158	5558
1995-96	11545	8801	8748	6790	7537	5204	7216
1999-2000	13308	11051	10178	8248	9003	5735	8555
2004-05	17465	14674	14441	7809	10450	6955	8368
CGR: 1990-91-2004-05	3.7	5.6	6.4	2.2	3.6	3.5	2.7
CGR: 1990-91-1999-2000	2.8	5.5	6	3.9	3.9	3.3	4.4
CGR: 1999-2000 - 2004-05	5.6	5.8	7.2	negative	3.0	3.9	Negative

Source: Economic survey (various years), WPI from Office of the economic adviser, Ministry of Commerce and Industry

Table 3
Proportion of Education Expenditure Spent on Elementary Education

State	Haryana	Himachal Pradesh	Kerala	Madhya Pradesh	Meghalaya	Orissa	Rajasthan
1990-91	45.90	56.62	52.40	59.38	55.46	54.98	54.38
1995-96	47.18	54.56	48.73	59.93	59.91	54.75	55.96
2000-01	45.13	56.67	46.28	68.46	61.18	60.62	57.83
2003-04	47.77	55.46	42.45	80.66	54.44	58.21	56.65

Source: Analysis of Budgeted Expenditure on Education, Ministry of HRD, Govt. of India - various issues.

Table 4**Education Expenditure as a percentage of total Revenue expenditure**

States	Primary Education (%)	Secondary Education (%)	Higher Education (%)
Andhra Pradesh	4.9	3.3	2.3
Assam	11.7	6.2	3.4
Bihar	13.9	3.6	3.6
Gujarat	8.6	4.8	1.7
Haryana	6.8	5	3.3
Karnataka	9.9	5.4	2.1
Kerala	7.5	7	3.2
Madhya Pradesh	9.1	2.9	1.8
Maharashtra	9.4	8.4	2.8
Orissa	9.4	3.9	3.1
Punjab	2.4	7.6	1.3
Rajasthan	11	6	1.1
Tamil Nadu	6.7	6.3	1.9
Uttar Pradesh	11.3	4.3	1.4
West Bengal	6.8	7.8	2.4

Source: State Finances, A Study of Budgets, RBI 2010 and Analysis of Budgeted Expenditure on Education, MHRD, Govt of India: Various years

Table 5**Schooling costs for children aged 6-14 years in various states**

States	Private school enrolment (%)	Annual total expenses per student (Rs)	
		Government	Private
Andhra Pradesh	31	574	3260
Assam	6	371	1636
Bihar	18	704	2466
Chhattisgarh	15	317	2039
Delhi	28	1044	5390
Gujarat	22	766	4221
Haryana	47	1043	4372
Himachal Pradesh	19	1709	6273
Jammu & Kashmir	47	1045	3719
Jharkhand	32	502	2932
Karnataka	28	638	3848
Kerala	31	1537	3259
Madhya Pradesh	27	333	1935
Maharashtra, Goa	20	599	2370
North- East	34	1441	4237
Orissa	8	612	2851
Punjab	52	1444	5160
Rajasthan	32	676	2612
Tamil Nadu	23	606	3811
Uttar Pradesh	43	427	1733
Uttarakhand	27	972	3422
West Bengal	10	1136	5045
All- India	28	688	2920

Source: Human Development in India, challenges for a society in transition, OUP 2010, page 84