

**Performance of Higher Secondary Education in Assam: A
Comparative Study of Students in Public and Private Institutions**

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DECLARATION

I, Pranati Das, hereby declare that the subject matter of this thesis entitled **“Performance of Higher Secondary Education in Assam: A Comparative Study of Students in Public and Private Institutions”** submitted to the Department of Economics, Sikkim University for the degree of Master of Philosophy is my own work and that to the best of my knowledge it contains no materials previously published or written by others. Wherever contributions are involved, every effort is made to indicate this clearly, with due references to the literature, and acknowledgement of collaborative research and discussions.

I further state that no part of my thesis has already been or is being concurrently submitted for any such degree, diploma or other qualification.

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CERTIFICATE

This is to certify that the dissertation entitled **“Performance of Higher Secondary Education in Assam: A Comparative Study of Students in Public and Private Institutions”** submitted to Sikkim University in a partial fulfilment of the requirement for the degree of Master of Philosophy in Economics, is the result of bona-fide research work carried out by Miss Pranati Das under my guidance and supervision. No part of the thesis has been submitted, to the best of my knowledge, for any other degree, diploma, associate-ship and fellowship. All the assistance and help received during the course of the investigation have been duly acknowledged by her.

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CHAPTER I

EDUCATION POLICY AND GENESIS OF HIGHER SECONDARY EDUCATION

1.1.Introduction

Following the emergence of liberalisation, privatization and globalisation in the 1990s, there has been a significant change in the education system in India. The privatization of higher and higher secondary education, besides school education, kicked off in the 1990s. Though education being a public good, the Government of India (GoI) failed to accommodate the country's ever growing population in the limited educational institutions, especially the higher and higher secondary education. As a measure of it, the GoI has tried to invest in the new capacities and enhancing the existing institutions, which paved the way to a newer height in the country. With the help of the GoI, the University Grant Commission (UGC) and the All India Council of Technical Education (AICTE) are promoting private parties to invest in the educational sector without compromising its quality. Consequently, the growth of higher and higher secondary educational institutions in the country has been noticed in the recent past. Assam, one of the major states of North-eastern Region (NER), is no exception in this regard. In the recent past, the government (state and central) has given special emphasis on education through Sarva Shiksha Abhiyan (SSA) and Teacher Eligibility Test (TET) programs. Despite these efforts, the quality of education in Assam seems to be declining rapidly and the students' enrolment ratio in higher education is also not found to be so impressive in the state. Consequently, blame game started rolling on, criticised government for reducing State budget on higher education. A large number of scholars, at present, have started debating on the defects of the systems of education— public and private. Some are in favour of public and others are in support of the private education system.

The public expenditure on higher secondary education in India has reduced drastically in the recent past. The percentage of total educational expenditure on secondary education was found to be reduced significantly from 34.05 percent in 2000-01 to 7.27 percent in 2010-11 and it further decline to 6.91 percent in 2011-12. In Assam as well, of the total public expenditure on education sector, the share of secondary education declined from 26.46 percent in 2000-01 to 6.17 percent in 2010-11, but it has slightly increased and reached to 10.48 percent just after a year, in 2011-12 (GoI, 2013). This led to an opportunity for the private investors to enter into the sector, which was also supported by the public policy of liberalisation. But, the larger issue discussed in this context for long is the “quality”. According to Shafi (2003), though government allowed various private universities to establish in the recent past, only a few of them were able to provide quality education and many more have started with the objective of making quick profit. In this regard, in 1992, the Supreme Court of India gave a judgement to ban high fee charging private colleges known as “Capitation fee Colleges”. With a minor modification, lobbied by private sector, another judgement given by the Supreme Court, in 1993, allowed to establish “Self-financing Colleges”. Further, a private university bill was introduced in the Parliament in 1995 for establishing self-financing colleges, which was still pending since 1995 due to several clauses in the bill which are unfavourable to the private sector (Tilak, 2014). Later on, in May 2007, the cabinet gave an approval for withdrawal of the bill and said that the regulation takes care of the Centre's obligation in regard to the coordination and maintenance of standards of higher education. How far the standard of education is taken care of by the said regulation is a researchable issue among the academia in the country.

1.2. History of Education System in India

Education provides knowledge and enriching ones thought. As of the genesis, the education system in India can be chronologically divided into— Ancient Vedic period, Medieval Buddhists period, Islamic period and pre and post-colonial period. The ancient Indian is the land of innovation and invention, had a rich education system since ancient period and established the world's first university, the Takshashila University in 700 B.C. Indian education system started from the Vedic

period with their religious education (Pandya, 2014). The education system of Vedic period has its own unique quality and characteristics and had an inspiration to all education system of the world (Chand, 2015). The Buddhist period was mainly inclusive of secular urban institutions of higher learning and its goal was to attain wisdom, all round development of the children's personality. Apart from the religious framework, the subjects like Politics, Economics, Philosophy and History had been taught in those periods. Along with other area women empowerment and education was also noticed in that period (Maheshwari, 2012). Islamic period began in India with the advent of Mughals. Before the invasion, the Muslims had established higher learning institutions in Muslim countries called Madrasahs. In India, these Madrasahs were mainly founded by Sultans. Education in the medieval period in India flourished mostly during the Mughal rule from the beginning of 1526 until the end of Mughal political presence in 1848 (ibid, 2012). However, the era of modern education in India started from the colonial rule of the British in India. At the first, British followed a policy of non-interference in the social and cultural life of India. After 1919 the control of education started by the Indian Minister in Provinces. After the Montague-Chelmsford Act 1919, several regulations and recommendations were made to expand education in India. From that time, British started to make expenditure on education system in India. Later on, various commissions were also passed for better development and expansion of education in India (Meena, 2015). The modern Indian education system is a contribution of both Public and Private sector. Modern education system in India is divided into six levels—Pre Primary Level, Primary Level, Middle Level, Secondary Level, Under Graduate Level and Post Graduate Level.

1.3. Educational Policies in India

The modern education system in India was brought by the East India Company (British) for the interest of the European and Anglo-Indian children. Later on, company's official, Warren Hasting, in 1781, partially recognized the duty of a civilized government to promote education, Calcutta Madrassah was established. Likewise, in 1791, Banaras Hindu College was established to spread western knowledge through the medium of English. During 1765 to 1813 the educational

system in India was under various agencies and with different motives. They established the two main institutions to gain the confidence of the people of India with traditional and indigenous education. Christian missionaries were also allowed to start educational activities in India. During 1813 to 1947 the education of India was under British parliament and went through various stages. But, the British government failed to create a national system of education in India, no systematic plan of education was made under the changing Viceroys, Governors and Directors (Kaur, 1985).

Indian constitution has various provision related to education and its development in the country. The responsibilities of Indian education are divided into two— Central list and the Concurrent list. Some of the important of provisions of Indian constitutions related to education are—free and compulsory education, education for the minorities, instruction in mother tongue, education for weaker section of the society, secular education, women’s education, development of Hindi, education in union territories, etc. The national policies in India related to education are briefly discussed below:

- After the Independence, the first Indian education policy has been declared in 1986, based on the recommendations of the Education Commission 1964-66. Compulsory education for all children up to the age of 14 as well as better training and qualification was the main motive of the policy. This policy also emphasised on the instruction of languages that were English, Hindi and regional languages to be taught in the secondary level as well as encourage the ancient Sanskrit language in India (NEP, 1968).
- Another National Policy related to education has started in the year 1986 in India. The main motive of this policy was the removal of disparities and to equalised opportunity among the Indians. National Policy of Education 1986 was mainly concentrated on child development and care in India. During the policy period, Indira Gandhi National Open University was established (NEP, 1986).
- The revised policy formulation was started in the year 1992 to modify the various external and internal problems of the National Policy of Education

1986, which was called the Program of Action. In this plan, universalization of primary education and adult education along with women's education were given more emphasis (POA, 1992).

- Recently, various new policies were announced by the government, primarily related to different aspects of education in India. Some of them are— District Primary Education Programme 1994, Sarva Shiksha Abhiyan 2000, National Programme for Education of Girls at Elementary Level 2003, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for development of secondary education 2009, Inclusive Education for the Disabled at Secondary Stage 2009, Saakshar Bharat (Saakshar Bharat)/Adult Education 2009, Rashtriya Uchchatar Shiksha Abhiyan (RUSA) for development of higher education 2013.

1.4. Development of Secondary Education in India

The secondary education is very important stage of education, which helps in the development of the society as a whole. Increasing investment in secondary education helps in increasing socio-economic return by developing our nation. Despite the importance, the secondary education is one of the most neglected parts of education in developing countries like India (Biswal, 2011). Secondary education is a very important stage of education that establishes a relation between primary and higher education. For better upliftment of a society, it is necessary to give proper importance on secondary education as it is one of the most important stages of education that enhances the adolescent and youth for human and social capital growth of any country (Briseid and Caillods, 2004). Secondary education in India starts from the efforts of nationalist and Christian missionaries in the last part of the eighteenth and first decades of nineteenth century, which was the period of British rule in India. Under the colonial regime, the court of Directors in 1830 decided to impart English education in India. The purpose of imparting English education was to give an opportunity to the local people in higher positions in administrative services in India. Under the then Governor General Lord William Bentinck, the Resolution of the 7 March 1835 was passed through Macaulay's Policy to promote

western arts and science. Besides this, another two resolutions were also passed by Lord Hardinge to accelerate the growth of English education in India in the year 1837 and 1844. By 1852 only 32 secondary education schools were there in India and most of them were established to spread western science and literature knowledge in India. These schools were mainly run by the missionaries and private bodies or societies and only few of them were under the management of Indian society. During the British period secondary education got its scope to spread all over India. In the year 1854, the Wood's Despatch Commission was declared which gave a scope for the growth of secondary education. According to the Commission, "the people of India should be growing familiar with the result of the thought and the labour of Europeans on the subject of every description and to extend the means of imparting this knowledge must be the objective of any general system of education." The Wood's Despatch commission has the system of grant-in-aid system, which helped to grow the secondary schools in India (Report of Wood's Despatch, 1854). But the Wood's Despatch Commission faced many problem and faults later on. To remove the faults of this commission, the Indian Education Commissions were formed in 1882-83 to examine the secondary schools in India. This commission suggested the diversified courses for secondary level. According to the commission the upper class should have two divisions that were— first one, leading to the entrance of the Universities and second one was to fit youths for commercial or other non-literary pursuit. But the recommendations of the commission were ignored by the both government and public because of the commission's recommendation regarding the medium of instruction were quite dissatisfactory as the study of Indian languages were neglected by the commission (Report of Indian Education Commission, 1882). But during this Indian Education Commission 1882-83, we noticed a rapid growth of Secondary Schools in India. The number of schools increased from 3,916 to 5124 during the year 1882 to 1902 with an enrolment of 214077 to 590129 (Kaur, 1985). In the year 1902, one new commission came into being that was the University Commission to transfer the administration of secondary education to universities. During the University Commission necessary rule and regulations were framed that only recognised institutions were given power to present their students at the Matriculation examination. But the defects of this commission were recognised soon and Boards of Secondary Education were formed to control schools and to formulate the

curriculum and to conduct examinations. Because of the restrictions, many old schools were closed and new schools established in that period. Another new commission formulated by the Government of India in 1917 was the Calcutta University Commission to re-examine the problem related to secondary as well as University education. The Calcutta University Commission was the first Commission, which was suggested to establish independent board to control high schools and intermediate education in India. Some of the recommendations were implemented and intermediate schools were established at that time. But less importance was given to improve the qualitative improvement of the secondary schools in India. Some of the suggestions were not implemented and the education remained bookish during this commission (The Calcutta University Commission, 1917). Later on, an auxiliary committee was formed in the year 1929 called Hartog Committee to review the position of education in India. The committee suggested a more improved and diversified curriculum at schools level. The committee suggested for the reform in the secondary school that the boys should be prepared for more diversified courses such as to industrial and commercial courses for that special instruction has been given to follow to established technical and industrial schools. As a result, a number of technical, commercial and agricultural institutions were established all over in India (The Hartog Report, 1929). In the year 1934, one more new commission come into forced that is the Sapru Committee to enquiry into the causes of unemployment. The recommendations of the Commission for the secondary education were— firstly, diversified courses should be introduced; secondly, the intermediate stage should be abolished and the secondary stage should be extended by one year; thirdly, the vocational training education should begin after the lower secondary stage and fourthly, the degree course at the university should extend over a period of three years (Sapru Committee 1934). The next report came into force was that the Abbot-Wood report 1936-37. It was formed as felt that there was absence of adequate and proper vocational education. Therefore, the government of India invited two British education experts— Abbot and Wood, to prepare plan for vocational education in India. A report has been prepared by both of them called Sargent Report in 1944. The commission made some attempts to resolve the problems related to the ongoing system of education then prevailing in the country. Some of the major recommendations given by the commission were accepted by the Central Government and established a separate education

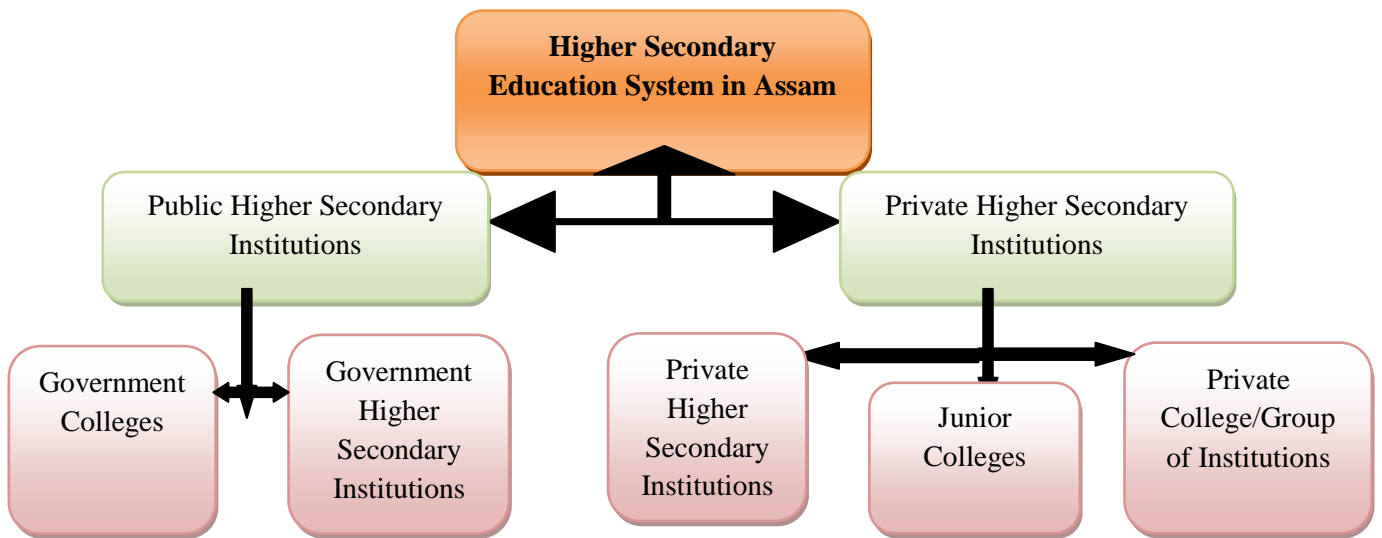
department in the year 1945(The Abbot and Wood Committee, 1937). During British period, various commissions and committees were formed to improve the Secondary Education system in India. During that period, number of secondary school increased from 4888 in the year 1917 to 12693 in 1947 with an enrolment of 3000000 (Kaur,1985) students. This is the way by which secondary education in India was flourished during British period.

The modern curriculum of higher secondary education system in India is divided into two streams, that are— Academic stream and Vocational stream. In India, if we observe the recent trend of growth of expenditure on secondary education is in third highest expenditure that is 385.1 billion made by the government (GOI, 2003). It is found that the trend of expenditure on higher secondary education, which was quite fluctuating in nature, lingering around the Mean of 33 per cent of total expenditure on education during the period 1993-94 to 2013-14. The enrolment rate in higher secondary education has increased. Enrolment rate of male students was higher than that of female during the period 1990-91 to 2013-14 (GOI, 2015). The teacher pupil ratio in higher secondary education is found to be positive and increasing in nature during the period 1960-61 to 2012-13 (GOI, 2014).

1.5. Higher Secondary Education System in Assam

The modern education system in Assam was also started during the British period. The British government with the help of some local people took initiative to improve the education in Assam. As per record of the Assam Higher Secondary Education Council, by the year 1875, the number of educational institution (that includes primary, secondary, Higher education) was registered at 1,293. Further, in the post-independence period, a lot of changes and improvements have been made on the education sector. Till 2014, the number of institutions increased to 56402, including all types of institutions. Guwahati, the capital of the state became the hub of education for entire North-eastern Region of India (NER). As followed in the country, after completing the secondary education that involves 10 years of schooling, students usually enrol in higher secondary education in any one of the three disciplines— Science, Commerce and Arts.

Table 1: Structure of Higher Secondary Education System in Assam



This level of education (higher secondary) involves two years— class XI and XII, and it is the crucial stage of any student for deciding their area of specialisation to be pursued in the higher education level. In Assam, the higher secondary education is run by both the public and private sectors, under five systems. They are the public higher secondary schools, public degree colleges, private higher secondary schools, private degree colleges and junior colleges. Please refer to the Higher Secondary Education system chart is given in the Figure 1.

1.5.a) Government/Provincialised College

Government or Provincialised Colleges are those colleges controlled and run by the government or with the funding from the government. In Assam, they are categorised as Government Colleges or Provincialised Colleges and Colleges receiving Financial Assistance. As of now, altogether 343 colleges of this category are found in Assam (DES, 2014).

1.5.b) Government Higher Secondary School

In Assam, most of the Higher Secondary Schools are run by the government and managed by a separate body called the All Assam Higher Secondary Education Council. Till 2012-13, the number of Government Higher Secondary in Assam is estimated at 1080 in number (DES, 2014).

1.5.c) Private Higher Secondary School

Apart from Government Higher Secondary School, there are other Higher Secondary schools in Assam, which are fully managed and run by the private individuals or some management. But, it must be recognized by the All Assam Higher Secondary Education Council (AHSEC).

1.5.d) Junior College Model

In India, all states provide schooling through 12th grade. Maharashtra, Odisha, Assam, Andhra Pradesh and Karnataka however, have a system of junior colleges where, after taking the 10th grade board exams students can enrol to junior colleges to complete their 11th and 12th grades. Junior colleges are also referred to as Pre-University Colleges (PUC). They may stand alone, co-located either with degree colleges or schools or both.

1.5.e) Private Colleges or Group of Institutions

The private colleges providing class XI and XII standards, along with the degree level education is termed as private college or the group of institutions. These types of institution are fully run by the private individuals or the group of people. But, the Private Colleges and Group of Institutions they are also required to get recognition from the All Assam Higher Secondary Education Council (AHSEC).

Having realised the importance of higher secondary education, in Assam, the Assam Higher Secondary Education Council (AHSEC), which is a statutory body of higher secondary education system was established in the year 1984 with the objective to develop and promote higher secondary education. For reducing the ever increasing demand for higher secondary education, the government of Assam has allowed private sector to participate in it. Thereafter, a system of higher secondary education called “Junior College” was introduced in 1989-90 exclusively for class XI and XII standard run by the private sector without any financial assistance from the State. In 1989-90, the number of junior colleges set up in Assam was 11 and 3174 students were enrolled (DES, 2014). After ten years, in 2000-01, the number of junior college in the state increased to 80 and student enrolment number was also jumped to 58855. As per 2012-13 data, the number of junior colleges increased to 466 and students’ enrolment also increased to 152099. During the same period, the number of all other higher secondary schools, which impart class XI and XII standard education was 1433 and the students enrolled were 165755. When we compared with the higher secondary educational system, the students’ enrolment per institutions in junior college (privately managed) has been very high. The number of enrolment of students (XI standard) per institution in junior college was approximately 326, whereas it is approximately 149 students in a public higher secondary (including higher secondary schools and degree college higher secondary) in 2012-13 (DES, 2014). Why has the student enrolment in the higher secondary school been so low, despite a large number of higher secondary institutions compared to the junior colleges? According to DES (2013), in 2012-13, the number of junior college (imparting exclusively XI and XII standards education) in Assam was 466, whereas, the total number of institutions imparting class XI and XII level that include all type of higher secondary education system were 1423.

1.5. Research Gap

Despite the opportunities and benefits like free tuition fee/negligible tuition fee, reservation in admission, scholarships, etc., provided by the public institutions, the growth of private educational institutions and students’ enrolment in it have been very rapid in the recent past, not only in the country but also in Assam. This paradox led to the interest of the many scholars to research on the issue. Is it because of the

failure in public higher secondary education system? If so, what about the other private systems, which impart higher secondary education in the state? As the higher secondary education level is the transitional stage in a student's life between the schools to degree levels, proper care and guidance is needed. This may be the reason why the enrolment rate in the private educational institutions, which is considered as paid service, has been increasing compared to public higher secondary education system. There is also possibility that both the systems run properly, but due to high pass out rate of class X standard, the limited public funded institutions failed to accommodate them all and compelled to join private educational institutions. The present study tries to explore the role of private educational institutions, which attract more students compared to that of the public higher secondary education system in Assam.

1.6. Research Questions

The study has the following research questions:

- Can private higher secondary education provide better or quality education compare to that of the public system in Assam?
- Which factor(s) have led to the rapid increase in the students' enrolment in private higher secondary educational system compared to that of the public?
- Which factor(s) have enhanced the students' performance of the higher secondary education in Assam?

CHAPTER II

LITERATURE REVIEW

2.1: Conceptual Framework

According to Shafi (2003), in economic sense, investment in education is profitable. When profit motives dominate and quality of education is compromised or fees and other charges are levied, such educational ventures are generally termed as commercial. A large number of aided and unaided private institutions generate surpluses, which are not necessarily ploughed back for investment in improvement in quality and relevance of programmes or improving access of education among deprived groups. A similar study done by Karuppayil (2009) found that the private eyes are generally on money and not on sharing the responsibility to educate the youth of our country. They do not have sense of philanthropy. While starting an educational institution they need not feel guilty of exploiting the students along with employees. Whereas Carnoy (1997) explored that a privatized education system is more efficient than public education in improving the social mobility of youngster from low income families. The social costs of privatizing a public educational system are minimal. Private system of education has even greater positive consequences for poor families than for wealthier families, because it would equalize the distribution of educational quality and educational outcomes among families with different incomes. A similar study by Sharma (2005) added that the higher education in India in reality is commercialised. The reasons behind the commercialization are socio-economic policies adopted by the successive union governments, particularly since mid-eighties, the ideological commitments of the ruling class, proactive role of the judiciary, vested interest of the business houses, the failure of the state funded education system due to gradual withdrawal of the State in responding to the needs and requirements of the people and growing choice of the elite, neo-rich and affluent sections for the private sector institutions both local and foreign. According to Chattopadhyay (2012), private return on higher

education is much higher than the social returns. Private sector benefits the most from higher education. In the country like India State funding for higher education is insufficient. According to Jamshidi (2012), in most of the developing countries, as the young population increases in number and consequently the demands for higher education rise, but the government cannot respond fully to this demand. Therefore, developing private higher education sectors is an alternative solution. The demands for knowledge acquisition have risen because it is considered as a competitive advantage for individuals to get better jobs and positions in a labour market. The vast expansion of gross enrolment and the increase of governmental budgets are the main reasons of an emerging role of the private sector in higher education globally. Further, the author believes that privatization improves efficiency, promotes accountability, raises choice diversity and increases the access to social services such as higher education. Joseph et al., (2015) in their study found that male students' perform better in private institutions than that of the female counterpart, also the private institutions are meant for the privileged people and public schools are meant for the general public.

According to Kaul (2006), higher education provisioning is now globalised and in many ways, a commercialized affair and the way that the State had in the goings on is vastly diminished. The prevailing argument in the World Trade Organisation (WTO) Secretariat is that higher education is akin to 'private consumption', directly benefiting the consumer by way of higher income and the perception of higher education as a commercial service is gaining acceptance. Saajidha, et, al. (2005) tried to explore how the process of globalization impacted upon the higher education and how it helped in women empowerments and gender equality in South Africa. As in South Africa, women leadership has raised their sustainability support through higher education, impacted directly or indirectly by the globalization. While Mehtap (2013) tried to examine privatization of education and its effects on educational quality and equity in Turkey. Private schools are profit-making and charge tuition fees from families. The comparison of public and private schools was observed through a survey and the study revealed that education quality and physical conditions were better in private school. However, the private school cannot be regarded to have greater success because they do not compete with equal conditions. Both profit and non-profit institutions are still under debate as to whether they could

offer solutions to problems of education. As it is seen in the example of Turkey, focusing on public schools would be more promising to achieve quality and equity in education. Similarly, Trivedi (2010) examined the dilemma of giving commercial treatment to Indian higher education and discussed several aspects to improve the quality of higher education. Further, the study analyzed the role of government, regulatory bodies, teachers and students in enhancing quality of higher education. According to Prakash (2007) the fee levels of the Public higher educational institutions are comparatively low the Private higher educational institutions. The increasing trend of private educational institution has adverse impact on balance growth of higher education. But with the ever growing differential demand and limited number of public institutions both the institutions can co-exists in parallel.

According to Pradhan (2002), economic liberalization has increased the stock of unemployment in India. Educational policies should be framed in educating the student with more trained and skilled and knowledge than academic degrees. A paper by University Grant Commission (UGC) in 2003 states that Indian economy gets a new dimension under the WTO regime, not only in trade but also in education and knowledge sector. Therefore, India has to rise and reoriented its higher education system. It was mentioned that a higher quality of faculty is must and it is time for designing an Indian Higher Educational Service along the line of India Administrative Service. Higher education should be developed as an infrastructure for social and economic growth of the country. While a study by Siddalingappanavar (2014) recommended that the goal of General Agreement on Tariffs and Trade (GATT) for higher education as a service includes removing restrictions on market access and barriers to competition in higher education. Competition among domestic private education is being observed in Indian education system. This type of competition has provided benefits as well as risk to higher education system. The only concern is about poor and meritorious students and national interest. Under GATT education is treated as tradable service, consequently competition is increased among education providers. Agarwal (2006) attempted to define the role and scope of private participation in the context of globalization. In three different sections, he presented the background of GATS and its basic principles, issues for India in reference to globalization, WTO and GATS, challenges and scope of private participation. According to him, countering its negative effects can enhance the

benefits from trade and investment in liberalization in education. According to Hyderabad and Hundekar (2009), education is considered as an investment both at the individual and social level, but the benefits from such investments is not immediate and quick. Human development index of World Bank uses the Gross Domestic Product (GDP) percentage spent on education as a measure of development. The countries with high growth rates in human development are spending a large percentage of their GDP on education. In India government should motivate an institution to develop innovative and creative methods of raising finances. A study by Chauhan (2009) stated that the expansion of higher education in India has been in quantitative terms. Growth and development of higher education is subjected to social pressure, the demand is being from primarily from upper and middle income groups. The author suggests that funding the university on the basis of performance should become operational. Such mechanism will lead to competence, quality and efficiency. The National Assessment and Accreditation Council (NAAC) may recommend performance based changes in grants to the universities which can play a significant role in the management of scarce funds and their misuse and wastage. A similar study done by Pawar (2009) stated that the university should make an endeavour to find out where the money goes for identifying areas of over expenditure, as also those that are inadequately supported. To enhance socio-economic development, government cannot withdraw its support from higher education; this will affect the society as whole. Madegowda (2009) has attempted to evaluate different dimensions of financing higher education. The criteria for evaluation are based on budgetary support by the government for general higher education. The recent policy decision of state government to reduced 10 to 15 percent budgetary allocations annually to universities and colleges which are creating problems. The educational institutions deserve and need the continuation of government support. An article by Araujo and Curs (2008) wrote that if there is an incremental increase in total public higher educational expenditure, it will be significant on effect per capita personal income. Expenditure on research activity is also positively associated with state level economic growth. It should be a state interest to encourage public institutions of higher education related to research activity. An increase in total state higher education has a positive correlation with state per capita income. Again additional state expenditure on institutions has positive and significant impact on personal income. On the other hand, a marginal

expenditure made on grant-in-aid has negative but significant effect on per capita income. Again institutional appropriation and University research activity have both significant and positive effect on state economic growth. A study done by Clauretie and Johnson (1975) found that the students' grade point is most significant variable affecting student's performance in economics. Soto et al., (2009) is of the view that attendance in the course has significant impact on academic performance. A higher Grade Point Mean (GPA) prior to enrolling into any course also associated with performance. Again use of laboratory is also influencing the students' performance towards a particular subject. Effort of the student himself/herself should be counted as a part of their overall grade. Once the students are comfortable with the teaching strategy and with the type of exam pattern, their performances increases gradually. Again they are saying that shift in students' perception about their own learning responsibility also affect the performance of the students.

According to Mushtaq and Khan (2012), communication, learning facilities and proper guidance show the positive impact on the student performance and the family stress shows the negative impact on the student performance. Communication is more important factor that affects the student performance and the learning facilities, and proper guidance also affects the student performance. Similarly, Singh and et al., (2016) said that learning facilities, communication skills and proper guidance from parents have a positive and statistically significant impact on students' performance. The results revealed that the most important factor is learning facilities, which impact the students' performance followed by communication skills and proper guidance from parents. According to Farooq and et al., (2011), higher level of socio-economic status is the best contributing factor, which affects the academic performance of the students than other school factors and student factors. Parental education also effects on students' performance but comparatively less than the socio economic status. Student gender strongly affects their performance. Girls are performing better in the subjects of English and Mathematics as well as girls show more efforts leading towards better grades at school level than boys. Similar study by Ali and et al., (2013) found that age, parents' income and hours of study have significant role in improving students' performance. Among all hours of study is more significantly affects the performance of the students. Another study by Dev (2016), is of the view that general mental ability is significantly and positively

correlated with the academic performance of the students along with home environment and family structure is also positively correlated with academic achievement. Again interest of the students towards their subjects has positive correlation with academic achievement of students. Nawaz, et al., (2011) found that students performance is not only influenced by the natural gift but also by some other factors like fathers' income, parents' education, size of the family, motivation by the teacher towards the subject, co-curricular activity, etc. According to the article the parents who have high income their children show good performance in the studies. Strong financial backgrounds tend to have better performance of the students. Parental level of education has positive impact on students' performance that better the level of parents' education better will be their children performance. Similarly, involvement of the students in co-curricular activities shows positive result on the performance in the study. Co-curricular activities are helpful in constructing achievements in the studies. There exists negative relationship between size of family and performance of the students, achievement and performance of the student reduce due to the large family size. Again, interest developed in the subject by the teacher and performance of the students is positively correlated. Martha (2005) found that there is no relationship between academic performance and points. Whereas, there exists positive relationship between school background, parent socio-economic status and academic performance. A study by Shulrfet al., (2008) found that school organizational factors do have an effect on the performance of the students. Students from private or state-integrated schools were found to have more GPA than students who came from the State-run schools. Demographic characteristics also affect students' performance and success in higher education at the individual, but not at the school level. School structure has more influential affect in students' performance. A similar study by Clauretje (1975) said that students' GPA is most significant variable affecting his or her grade in the subjects. Ford (1957) said that it is the intelligence, which influences the academic performance of the student than any other factor. Whereas, a study by Soto et al.(2009) interpreted differently by using many variables, which influence the performance of the students', such as attendance, laboratory effort of the students, students on perception regarding the subjects, GPA, etc. Bruce and et al (1977) found that both motivation and achievement is correlated with academic

performance of the student. Motivation leads to success and success enhances motivation.

According to Kanbur (2002), there is a sense the gender inequalities in education and in other aspects are large as they are made out to be in comparison with inequalities along other dimensions such as country where they resides. Joseph et al., (2015) found that there is no significant difference in the slightly better performance of the male students with their female counterparts in computer studies. Male students' performances are not uniform in nature but female students' performance is found to be uniform in nature though male students are performing better than female. The paper found that private institutions perform better than that of public. In public institutions, female students perform better than that of male. Female achievement score is even slightly better compared to male in public institutions. Kiptum et al.,(2013) said that for the people who have positive attitude thought learning Mathematics is important. But more girls had negative attitude towards learning mathematics than boys. The study found that the attitudes of the respondents were depending upon their gender. In the same way, Machin (2005) wrote that girls are performing well in the compulsory educations in England. Though in Mathematics, boys are performing better than girls, they always perform better than boys in English. Dayioglu (2004) is of the view that the gender of the students may be a factor in determining student performance. The gender composition of teaching staff is also important. It may have negative impact on girl students if number of female full time teaching staff is less than that of male. But compared to male students, female students are scoring more Cumulative Grade Point Average (CGPA) in the institutions. But numbers of enrolment of female students in private schools are less than that of government. The gender gap in university entrance scores is also noticed by the author. Female students are less successful in placement examinations than male and prefer less competitive departments that admit students with lower scores which reduce their motivation. Along with various faculties in economics faculties also showing gender gap. Gender of the students also matters in determine CGPA. Age is important determinant of the CGPA of Male students but not of female.

Hanna (1930), in his study, tried to find out the increasing or decreasing number of enrolment in junior colleges among American people and classified the growth of junior colleges on the basis of method of support into three parts— privately supported, publicly supported and State supported. People of America were stimulated by social and educational influences and young men and women are matriculating in colleges and universities in ever increasing number. Due to increasing enrolment junior colleges sharing the general increasing number of students. He found that enrolment of women got first rank in publicly supported junior colleges and privately supported second. Institutions enrolling women only show very little growth, as a group for the years studied. According to Shideler (1923), the world war encouraged the people of Kansas to go to college movement. Every first class city in the state has a college or junior college or is contemplating junior college. In California, a city must have an assessed valuation of eight million dollars before it is permitted to establish a junior college. This regulation is for the purpose of avoiding an excessive burden on the people. At that time non-public junior colleges changed to private junior colleges. The rapid growth of enrolment is the cause of growth of these junior colleges. A similar study done by Koos (1944) stated that as many predictions concerning schools and education in the post-war period anticipated an unprecedented growth of junior colleges.

2.2. Research Objectives

After reviewing the above literature the study has set some of the objectives related to the higher secondary education system in Assam. The objectives of the study are as follows:

- To examine students' performance under the private higher secondary educational institutions vis-a-vis public institutions in Assam.
- To explore reason behind the rapid increase in students' enrolment under the private higher secondary institutions compared to the public institutions in Assam.
- To identify the factor(s) that influenced the students' performance in higher secondary education in Assam.

2.3. Methodology of the study

The present study depends on both primary and secondary data. As of the secondary data, the information were mainly drawn from the Directorate of Higher Education Assam (DHE), the Assam Higher Secondary Education Council (AHSEC), Directorate of Economics and Statistics, Government of Assam (DES), University Grant Commission (UGC) Reports, National Assessment and Accreditation Council (NAAC), Human Resource Department (HRD) reports, etc. The secondary data have been analysed with the help of descriptive statistics. As the secondary sources do not provide the desire information fully to achieve the stated objectives of the study, the primary data have been given more emphasis. To assess the performance of the students, a written test was conducted based on the syllabus of class XI arts stream (that includes the subjects of English, economics and political science) of Assam Higher Secondary Education Council. Along with the written test, socio-economic factors of the students have been gathered through a well-structured questionnaire. Besides these, a separate questionnaire has also been set for the head of the institutions and interviewed them to understand the institutional background of the students.

A sample of 144 students has been selected for the written test and questionnaire survey. The questionnaire was set as per the syllabus of XI standard on the basis of some of the common subjects of Arts (including English, Economics and Political Science). For the purpose, three districts of Assam were selected, based on the geographical location. As Assam consists of two valleys i.e. Brahmaputra valley and Barak valley and further the Brahmaputra valley is divided into two parts i.e. upper Assam and lower Assam, one district each have been chosen purposively from three regions. Jorhat district was selected from upper Assam, Bongaigaon district from the lower Assam and Cachar district from the Barak Valley. Further, from each districts, 41 samples were taken. To collect the sample, the educational institutions have been divided into five parts i.e. junior college, higher secondary schools (public and private) and degree colleges (public and private). One each institution will be chosen from each district. All these institutions were selected from the urban centres. Besides descriptive statistics, simple regression (OLS) has been used to determine the performance of the students and the test score was taken as dependent variable.

2.4. Justification of the study

Secondary education represents the terminal point of formal schooling. This stage is important as it bridges between the general information of school education and higher learning specializations of college and university education. The foundation of higher learning builds in this stage. This is the period of adolescent when the personality and its components are growing and is the period of growing one's character. According to Iweala (2011), government is increasingly paying attention to secondary education for three main reasons i.e. firstly; the expansion of secondary education is putting increasing pressure on the secondary school system by their complete number. Secondly, the link between secondary education and economic growth evidence suggests that having a critical mass of people with secondary education is the key to shifting the basis of economic growth from a labour intensive to a more knowledge centric activity. Global evidence shows that an additional year of secondary schooling increases future wages by about 10-15%. Further, raising completion rates in secondary schools by three percentages boosts yearly per-capita growth by one percentage point. The third reason is required for young women. Educated women are better equipped to make decisions regarding marriage, bearing children, child health and education. An extra year of women education helps reduce fertility and maternal mortality by two per 1000 births.

As the higher secondary stage is a transitional stage of student's life from school level to higher education level therefore in this stage they need proper care and attention. Therefore we want to see that which type of education system is better performing in Assam whether imparting all classes together or exclusively separate one. Along with the reason behind preferring the private institutions though there are public institutions where expenditure of education is bearded by the government absolutely free.

CHAPTER III

GROWTH OF HIGHER SECONDARY EDUCATION

3.1 Introduction

In this chapter, an analysis has been made on the growth of the higher secondary level both in Assam and all India level. Here, mainly the educational related information like the educational expenditure, literacy positions, enrolment rate, teacher pupil ratios, number of institutions, sex wise distributions of teachers-students have been trying to analysis in all India and Assam. The growth pattern of the investment on education is also presented.

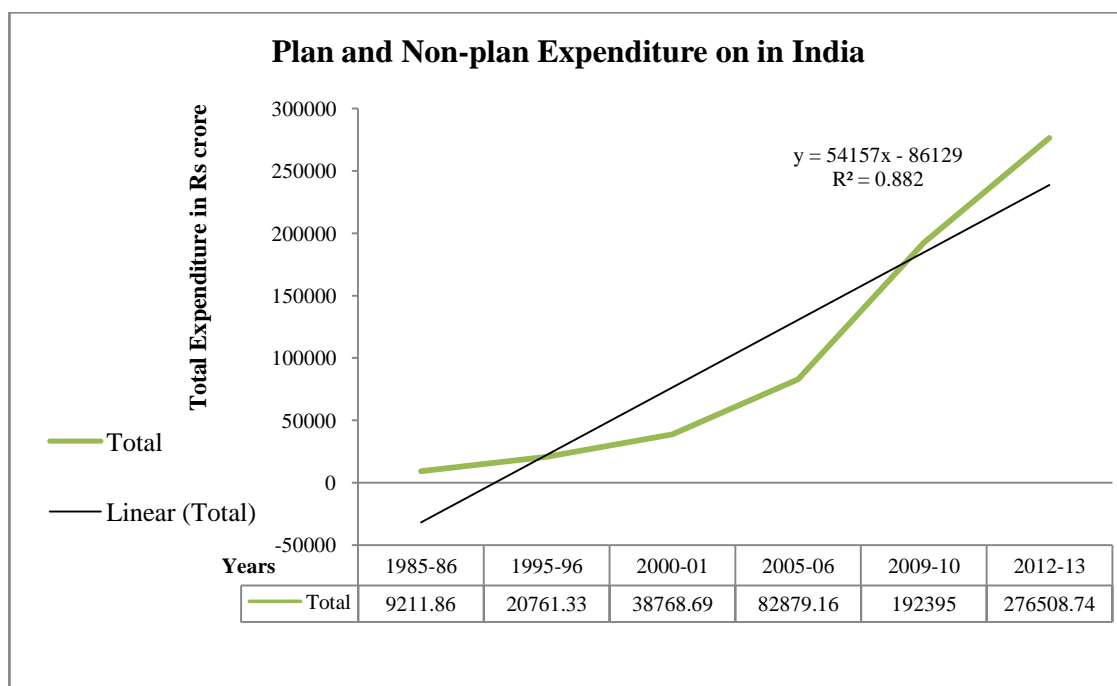
3.2 Expenditure on Education in India

Due to world economic recession in the 1980s public expenditure on various important sectors slowed down in India as well. Education sector also faced the same problem of decline in budgetary expenditure (Tilak, 1991). But education is an important sector, which helps in the growth human capital of the economy. In this section, we observe the expenditure on education, especially the Total plan and non-plan expenditure and share of expenditure on education of the Gross Domestic Product (GDP) on education.

3.2. a) Plan and Non-plan Expenditure on Education in India by Centre and State Government

In this section, we are analysing the total expenditure on education during 1985-86 to 2012-13.

Figure 3.2.a. Plan and Non-plan Expenditure on Education in India



In the above figure 3.2a, the total expenditure on education made by the government has been depicted. From the figure, it is clearly shown that expenditure on education has been increasing over time.

3.2. b) Expenditure on Education as Percentage of Gross Domestic Product of India

In this section, we try to find out the expenditure on education as a percentage of Gross Domestic Product along with the year to year growth rate of educational expenditure and compound annual growth rate of educational expenditure. Here, we are using few line diagrams to understand the growing expenditure trend of Gross Domestic Product on education over the year from 1951-52 to 2007-08.

Figure 3.2.b. Expenditure on Education as Percentage of Gross Domestic Product

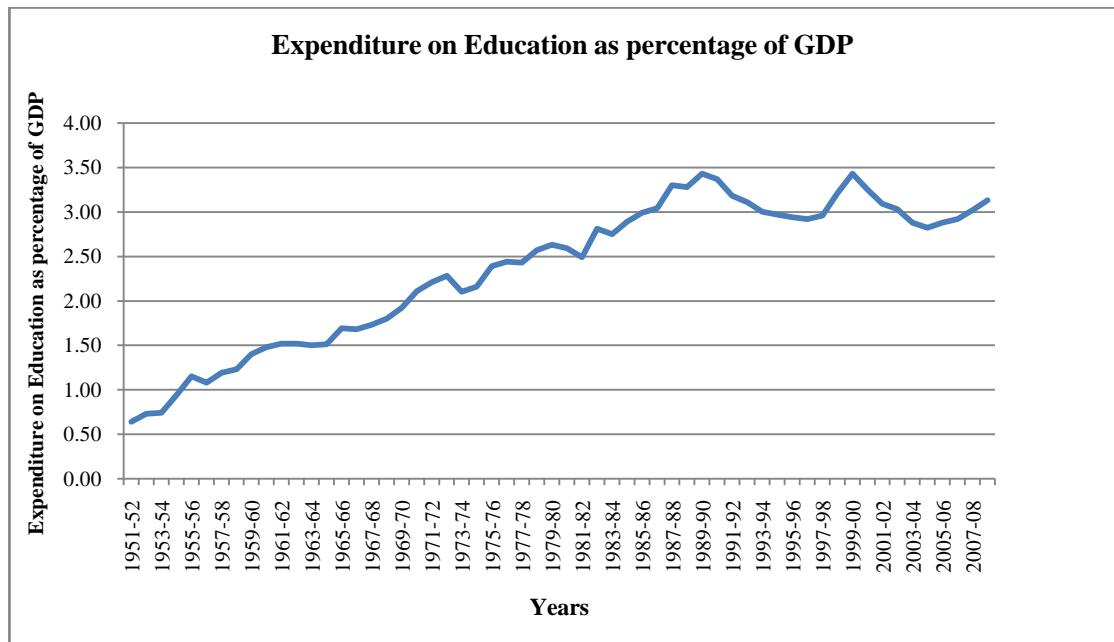
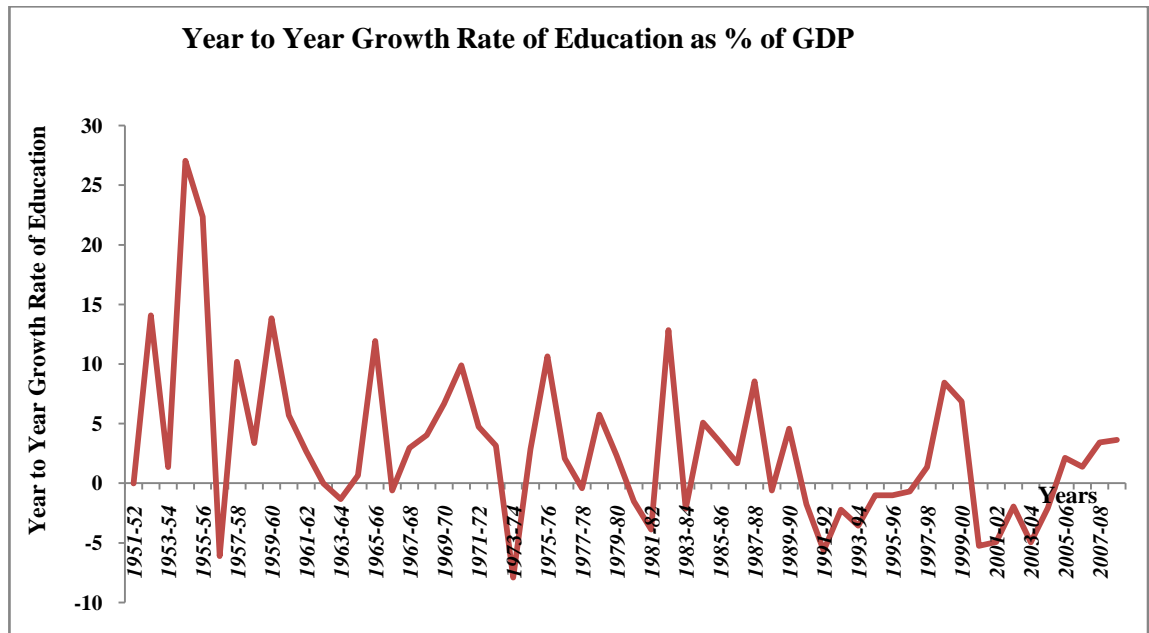


Figure 3.2.b depicts the trend line of expenditure on education as a percentage of gross domestic products during the year 1951-52 to 2007-08. Here the trend line showing an increasing trend throughout the period taken for the study. Again the expenditure on education started rising from the period 2003-04. The percentage of expenditure is highest in the period 1999-2000 as much as 3.43 percent during 58 years of expenditure on education and it is lowest in the initial period 1951-52 that is 0.64 percent.

3.2. c) Year to Year Growth Rate of Gross Domestic Product on Educational Expenditure of India

In this section, we are trying to represent the simple growth rate of expenditure on education as a percentage of gross domestic products during the year 1951-52 to 2008-09. At the same time, change in the expenditure made by the government on education as percentage of gross domestic product is also presented.

Figure 3.2.c. Year to year growth rate of Education as % of GDP

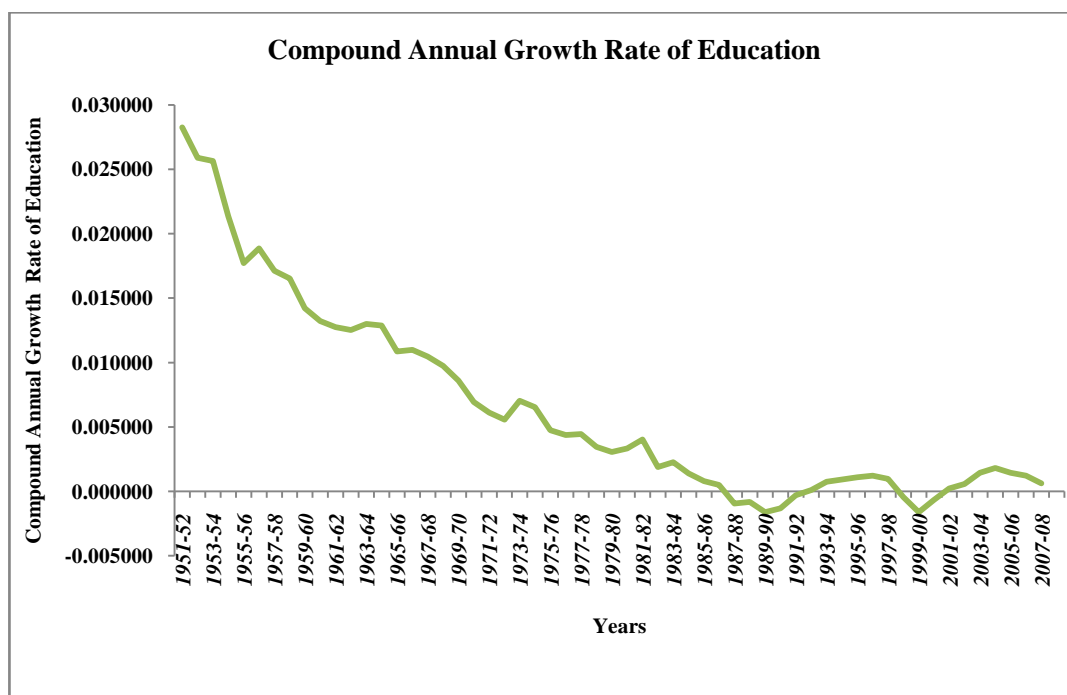


In the figure 3.2.c. we are trying to represent the year to year growth rate of expenditure on education during the period 1951-52 to 2007-08. The Mean of year to year growth has been turned out to be 3.03 per cent. But the study found that the growth rate of educational expenditure is a fluctuating one, rate of growth is the highest during the year 1954-55 that is 27.03 and lowest during 1973-74 with growth rate of -7.89. The growth rate was even found to be negative for longer during the period 1990-91 to 1996-97.

3.2. d) Compound Annual Growth Rate of Gross Domestic Product of Education

In this section, we try to find out the Compound Annual Growth Rate of Gross domestic product expenditure on education during the year 1951-52 to 2007-08. The Compound Annual Growth Rate (CAGR) is a useful measure of growth over multiple time periods. CAGR is a better measure of return over time. As Annual Growth Rate ignores the effects of compounding and it can overestimate therefore we are using CAGR for Gross Domestic Product.

Figure 3.2.d. Compound Annual Growth Rate of Education on GDP

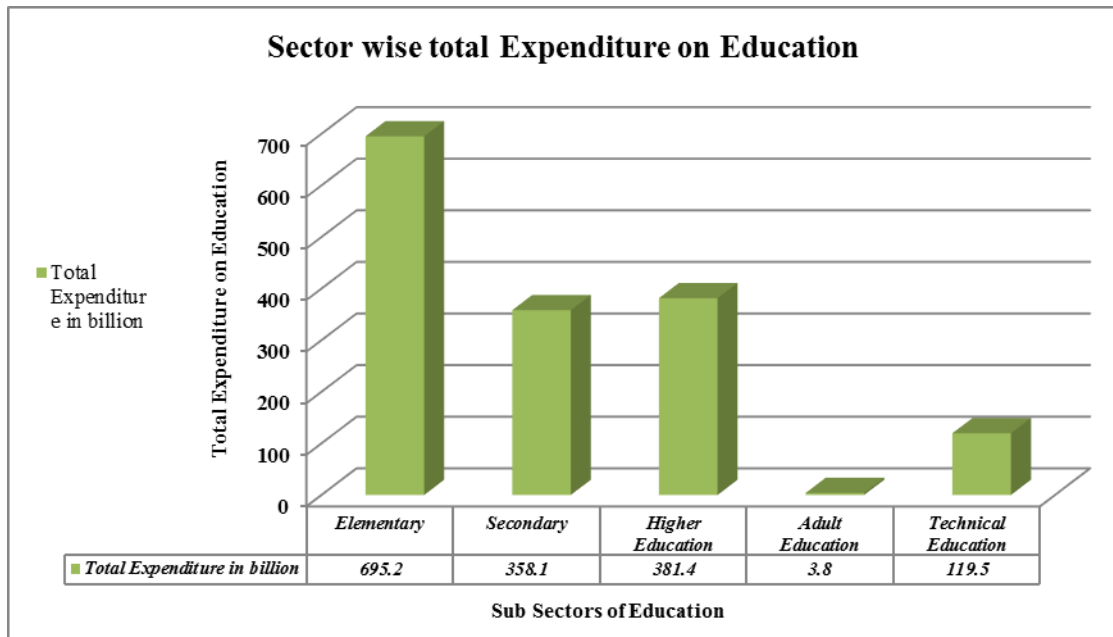


In the above diagram 3.2.d, the compound annual growth rate on education as a percentage of gross domestic products has been given. The compound annual growth rate is showing a downward trend falling from right to left during the period 1951-52 to 2008-09. The Mean compound annual growth rate of education on GSDP was found to be 0.00652 per cent for period from 1951-52 to 2007-08. It is found that the growth rate is positive from the initial period to 1986-87, thereafter, it was found to be negative during 1987-88 to 1991-92. Again from the period 1992-93 it takes the shape of positive trend till 1997-98. The highest rate of growth is found in the initial period 1951-52 with the rate of 0.028239 and lowest rate of growth is found to be in the year 1999-2000 with the rate of -0.001604.

3.2. e) Expenditure on Higher Secondary Education in India and Assam

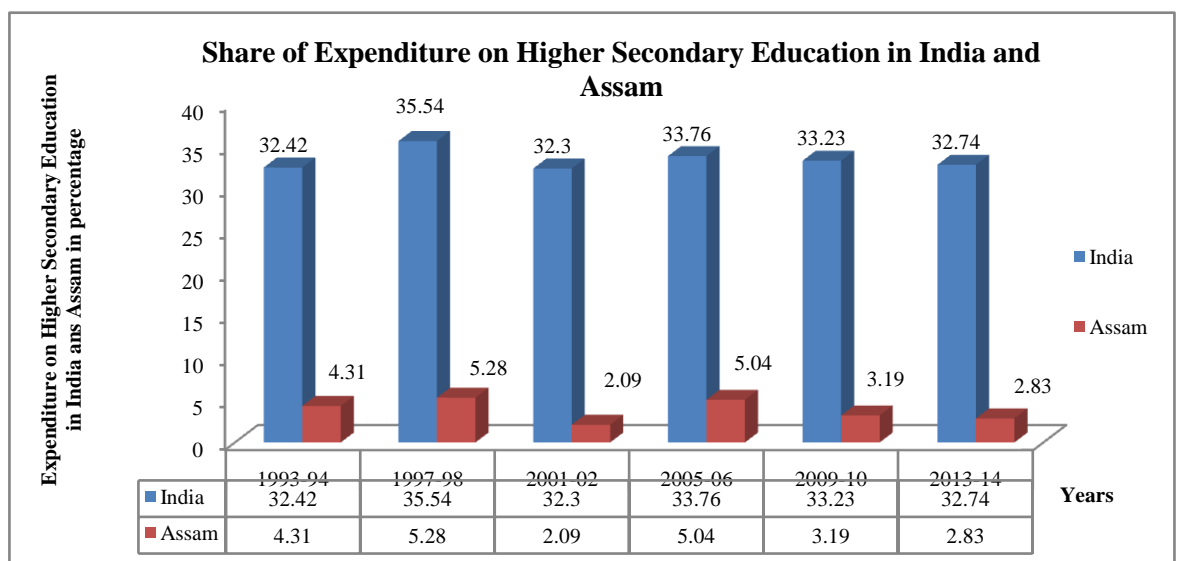
In this section, we try to analyse the expenditure made by the government on higher secondary education in India as well as Assam. Here two diagrams have been used to show the level-wise expenditure on education in India and Assam.

Figure 3.2.e.i: Sector Wise Expenditure on Education in India



In the above figure 3.2.e.i. the level-wise expenditure on education in India has been represented. The total expenditure on education is 1558 billion in 2003. It is clear from the figure that the largest expenditure is made on elementary education and lowest on adult education in India, whereas secondary education is the third highest sector where government spends among the education sector. The mean expenditure on education is 311.6.

Figure 3.2.e.ii: Share of Higher Secondary of the total Education Expenditure



In the above figure 3.2.e.ii, the expenditure made on higher secondary education has been given in all India level along with Assam. From the diagram it is clear that compared to all India level, the share of expenditure of Assam on higher secondary education is negligible. If we analyse the trend of education it is declining in nature. In all India level during 1997-98, the percentage of expenditure was 35.54 percent and in the next successive years it got declined slightly to 32.74 percent in 2013-14. In Assam also in the year 1993-94 the expenditure was 4.31 percent and it showed an increasing trend marginally at 5.28 percent during 1997-98 but declined again to 2.09 percent during 2001-02. Further, in Assam, it declined to 2.83 percent during 2013-14.

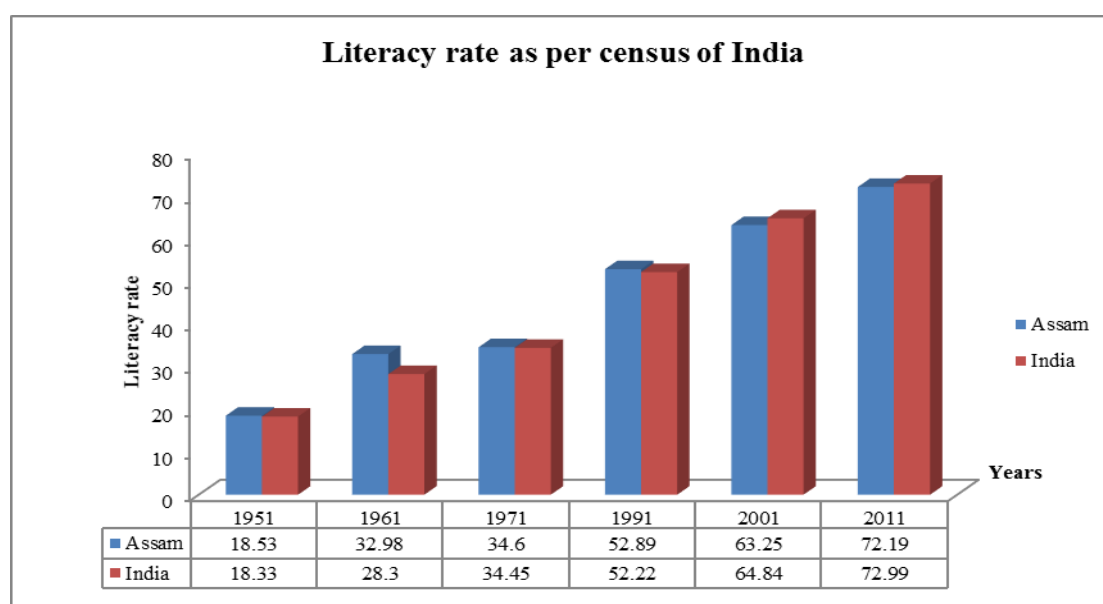
3.3 Literacy rate

Literacy level and education both are related to each other. Literacy rate is considered to be an important indicator of educational development. Better literacy rate means better level of educational attainment. According to 2001 census, out of the three, one person was found to be illiterate in India. Though the gap between male and female literacy rate was declining over the years, female still remained far behind the male counterpart. According to 2001 census, 25 percent of male were found to be illiterate and 46 percent of female, which is much higher rate than that of the male counterpart. It was also found that there has been inter-state difference of literacy rate in India where Kerala is achieving 90 percent literacy rate and that of Bihar is only 35 percent.

3.3.a) Literacy Rate in India and Assam

In this section, the growing literacy rate of India as well as Assam has been shown with the help of diagram is represented.

Figure 3.3.a: Literacy rate in India and Assam

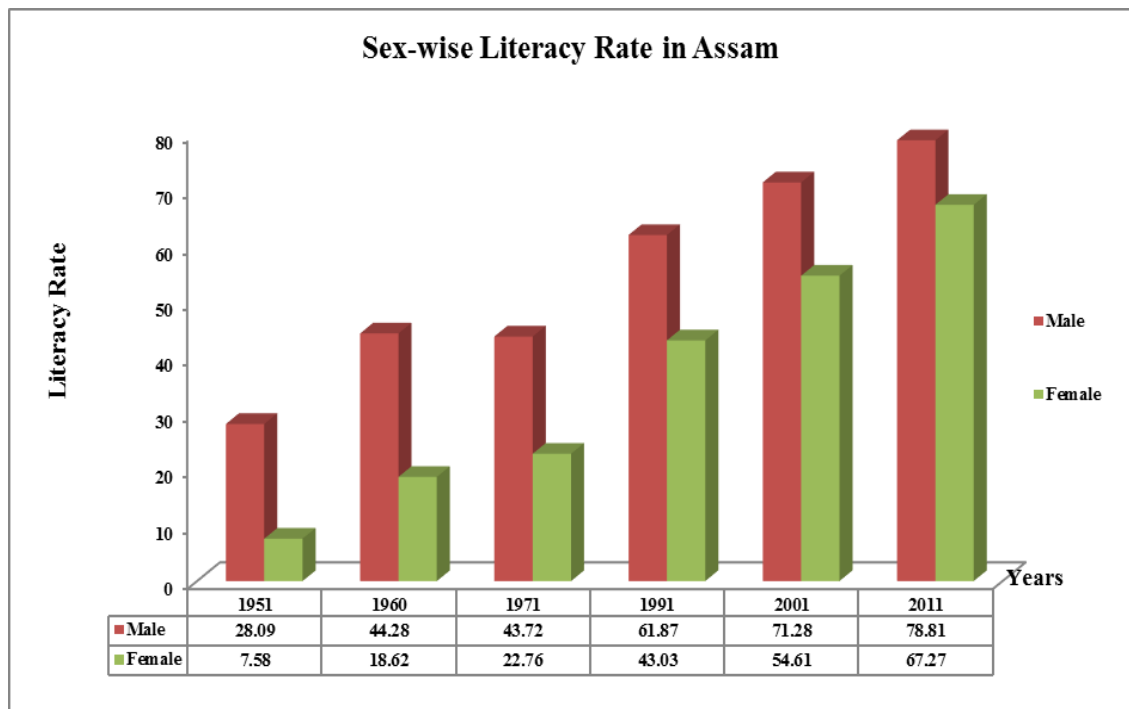


In the above figure 3.3.a. Rate of literacy has been shown with the help of bar diagram. Here, the trend of literacy rate of Assam is depicted vis-a-vis India as per the census report of 1951 to 2011. Here, the data related to 1981 has not been given as it was not released due to political disturbance of the state of Assam. Compared to all India level, the literacy rate in the state Assam was found to be almost same. One can also explore that the literacy rate was found to be increasing both in all India level and Assam over the year. In all India level, in 1951, it was 18.53 per cent and in Assam, it was 18.33 per cent. In 1961, the rate of literacy rate was found to be higher than that of India and it was 32.98 for Assam and 28.30 per cent for all India level, which was much lower than Assam level. Otherwise, it was found to be more or less same over the year.

3.3.b) Sex wise literacy rate in Assam

In this section, we try to analyse the growth of literacy rate in Assam by sex wise from the year 1951 to 2011.

Figure 3.3. b: Sex-wise Literacy Rate in Assam

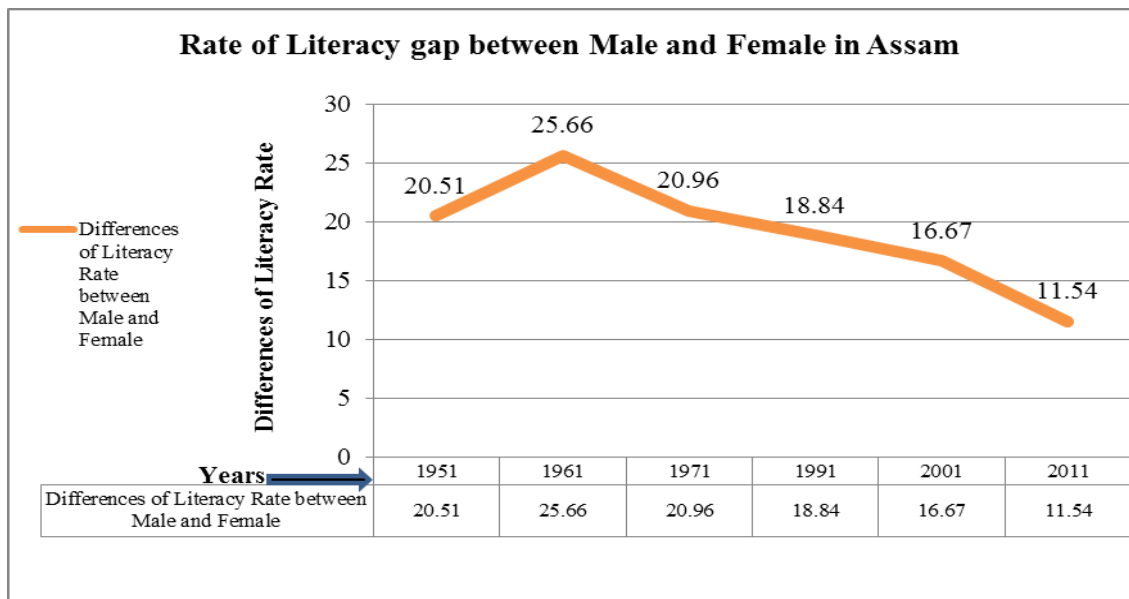


In the above figure 3.3.b. sex wise literacy rate of Assam has been given as per the census of 1951 to 2011. Here, it is noticed a larger difference between male and female literacy rate. From the above figure, the study found that compared to male literacy rate female literacy rate was much lower. The literacy rate in Assam was at the increasing trend. In the initial period of 1951, it was 28.09 per cent for male and 7.58per cent for female, which is very low compared to male counterpart in Assam. But in succeeding years, the rate of female literacy was found to be increasing in nature.

3.3. c. Rate of Literacy Gap in India

According to the World Bank, “Gender inequality hurts all members of society, not just girls and women.” Literacy and schooling are the important determinant of future growth and if women are facing disadvantageous position, it is education which may cause gender stratification in the society (Sundaram et. al., 2008).

Figure 3.3.c. Rate of Literacy gap between Male and Female in Assam



In the above figure 3.3.c., the gap of literacy rate between male and female as per census has been represented. The rate of literacy gap between male and female in Assam was found declining trend. The difference was the highest in 1961 but in the next successive years it was declining. In the initial year 1951, it was 20.51 per cent and slowly decreased to 11.54 rates in 2011 which was turned out to be the lowest as compared to the previous years.

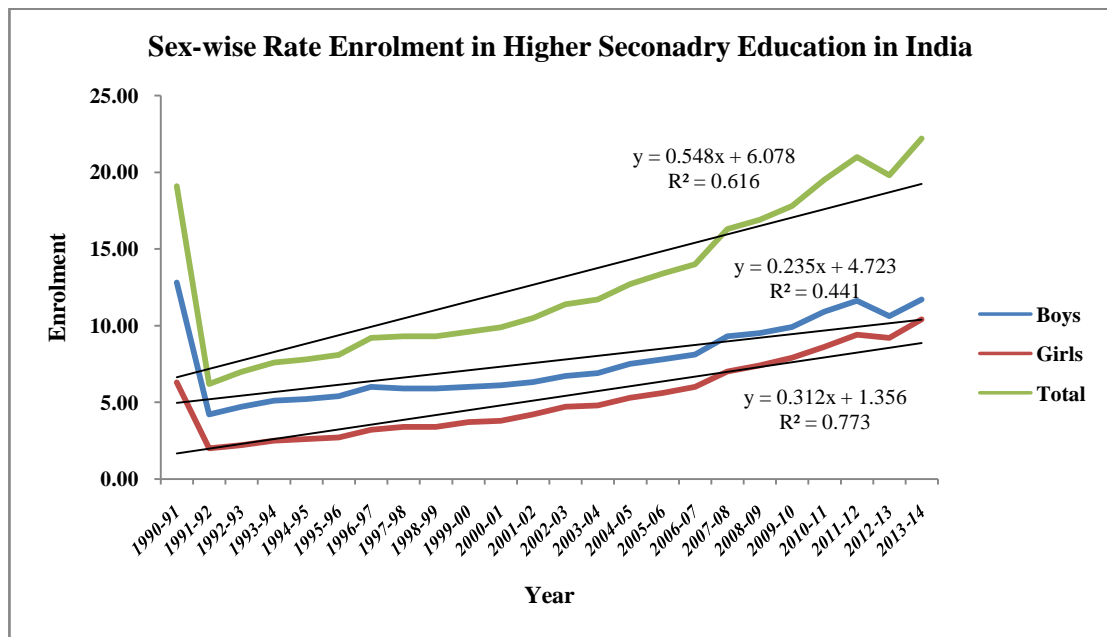
3.4 Enrolment in Higher Secondary institutions in India and Assam

Greater the level of education higher will the level of human development in the society. Education helps the society in many ways. People with the higher level of education are more aware of the society and development (Joshi, 2010). Before independence, 1947, the enrolment rate was very low and number of institution was also relatively less. Though it is compared to low with other Asian and Latin American countries, after the country’s independence, a massive improvement has been noticed in both growths of enrolment as well as number of institutions. It has shown an improvement of 40 percent enrolment from lower socio-economic sections of the society, albeit the female enrolment was far behind the male counterpart, estimated at 35 percent of total enrolment (Tilak, 2006). In this section, the study tries to analyse the rate of growth of enrolment in total and gender wise in India as well as in Assam.

3.4.a) Sex-wise Rate Enrolment in Higher Secondary Education system in India

In this section, the sex-wise enrolment in higher secondary education system of India will be analysed from the period 1990-91 to 2013-14 with the help of a line diagram.

Figure 3.4.a.: Sex-wise Enrolment in Higher Secondary Education in India

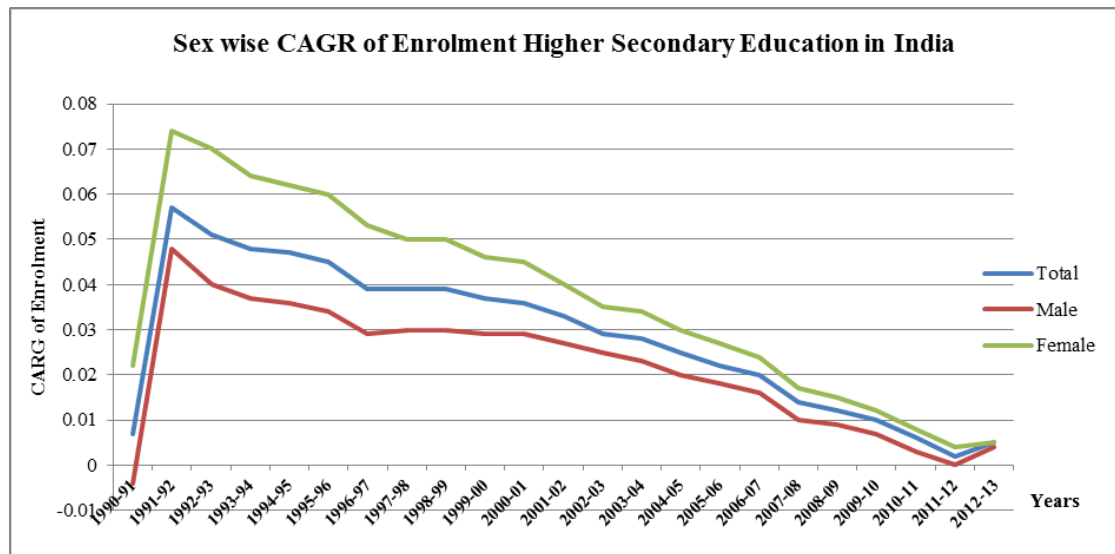


In the above diagram 3.4.a. the sex wise enrolment has been shown in all India level. The average rate of growth of enrolment in India is 0.028, of male enrolment it is 0.022 and that of female enrolment it is 0.039. Here in the above diagram it is noticed that the number of female enrolment is lacking behind that of male enrolment. Male rate of enrolment is found to be higher than female. But here the trend of enrolment is increasing in nature during the period 1990-91 to 2013-14. During the period of 1990-91 to 2013-14 in case of total enrolment highest rate of enrolment is found in the year 1991-92 with 0.057 million and lowest is found in the year 2011-12 with 0.002 million. In male rate of enrolment highest rate of enrolment is notice during 1991-92 with 0.048 million and lowest is noticed during the year 1990-91 with -0.004 million. If we see the female rate of enrolment highest is found during 1991-92 with 0.074 million and lowest during 2011-12 with 0.004 million.

3.4. b) Sex wise CAGR of Enrolment in Higher Secondary Education in India

In this section, sex-wise compound annual growth rate of enrolment in higher secondary education is shown with the help of a line diagram.

Figure 3.4.b. Sex-wise CAGR of Enrolment Higher Secondary Education in India

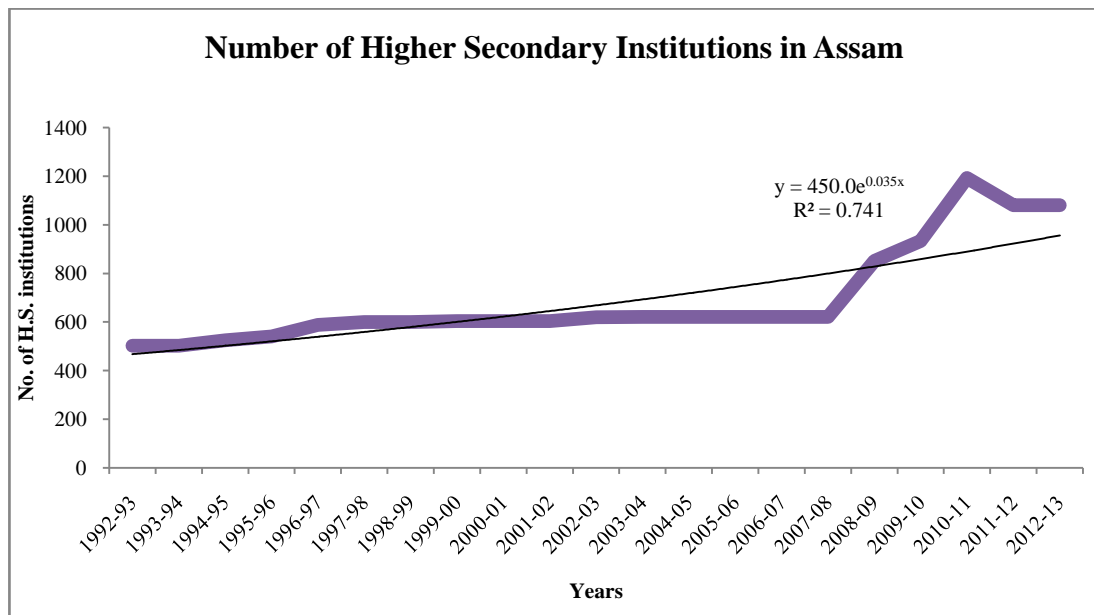


In the above diagram 3.4.b. the number of sex wise enrolment has been shown in all India. The Mean rate of growth of enrolment in India was 0.028. Of which, male enrolment rate was 0.022 per cent and the female enrolment rate was 0.039 per cent. Here, in the above diagram, it is noticed that the number of female enrolment was lacking behind that of male enrolment. Male enrolment rate was found to be higher than that of the female. But here the trend of enrolment was found to be increasing during the period 1990-91 to 2013-14. During the period from 1990-91 to 2013-14, in the case of total number of enrolment, in absolute term, it was at the highest in 1991-92 with 0.057 million and lowest is found in the year 2011-12 with 0.002 million. In male rate of enrolment highest rate of enrolment is notice during 1991-92 with 0.048 million and lowest is noticed during the year 1990-91 with -0.004 million. If we see the female rate of enrolment highest is found during 1991-92 with 0.074 million and lowest during 2011-12 with 0.004 million.

3.4. c. Enrolment in Higher Secondary Institutions in Assam

In this section, the number of enrolment in higher Secondary institutions in Assam has been given so that we come to know the position of Assam as compared to all India level.

Figure 3.4. c. Enrolment in Higher Secondary Institutions in Assam

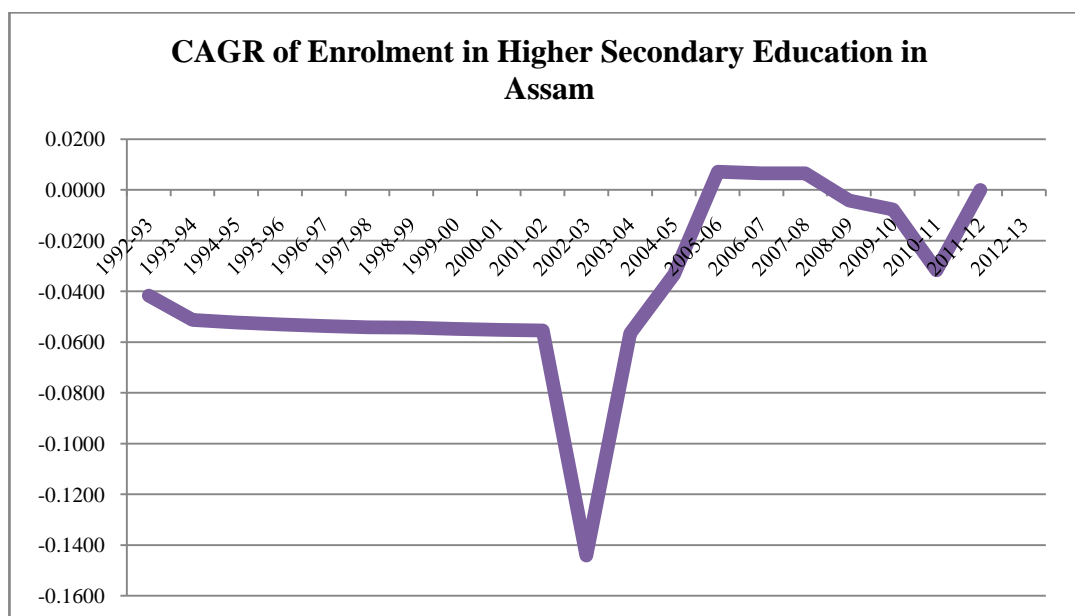


In the above diagram 3.4c, the number of enrolment in Assam during the period 1992-93 is given. The mean value of enrolment in this period was 340182.7. The number of students enrolled was found to be the highest during the year 2003-04, estimated at 515524 and found to be the lowest in the previous period that is 2002-03 with the enrolment of 136756. The number of enrolment in Assam in the initial period that is during 1992-93 to 2000-01, which was quite consistent during the period but after 2000-01, we notice a fluctuating trend till 2012-13.

3.4. e. Compound Annual Growth Rate of Enrolment in Assam

In this section the Compound Annual Growth Rate has been given so that we can get the compounding effects of enrolment over time period in Assam.

Figure 3.4.e. Compound Annual Growth Rate of Enrolment in Assam



The above diagram 3.4.e., the Compound Annual Growth Rate (CAGR) in higher education of enrolment in Assam has been analysed with the help of a line diagram during the period 1992-93 to 2012-13. The CAGR of enrolment in Assam is negative in nature. The Mean rate of growth of CAGR is -0.0392 during the period 1992-93 to 2012-13 and the highest rate of growth was found in the year 2005-06 with 0.0071 per cent and the lowest was found to be in the year 2002-03 with -0.1441.

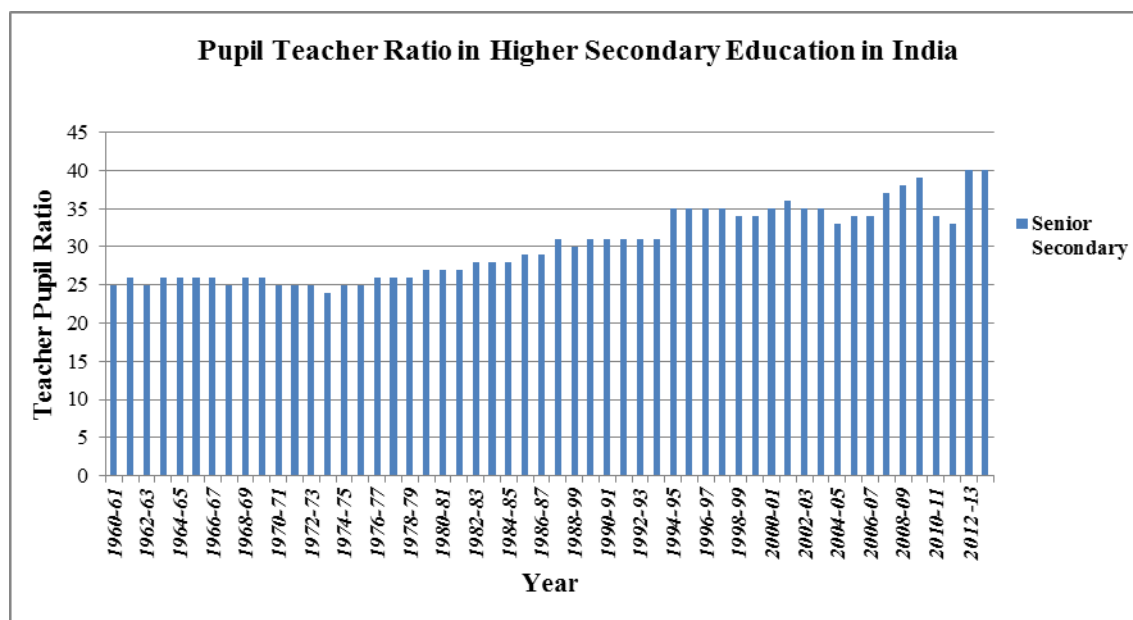
3.5 Pupil Teacher Ratio in Higher Secondary Education in India and Assam

According to Right to Education Act, the teacher pupil ratio should be 30:1 in order to ensure better learning outcome from the students. Even a research report of the Azim Premjis Foundation recommended that teacher pupil ratio should be less than 30:1 to turn a better performance of the students. If the teacher pupil ration is less in number, a good academic environment can be maintained to ensure better performance of the students.

3.5. a.i) Pupil Teacher Rate in Higher Secondary Education in India

In this section, the teacher pupil ratio in higher secondary education has been represented with help of column diagram during the year 1960-61 to 2012-13.

Figure 3.5.a.i: Pupil Teacher Ratio in Higher Secondary Education

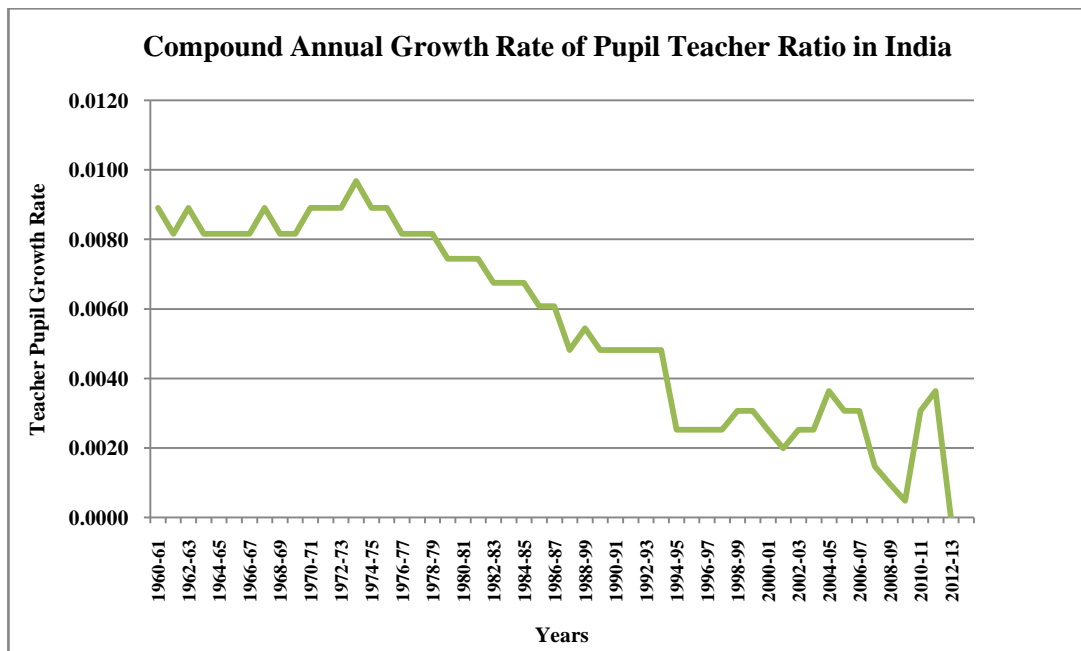


In the above figure 3.5.a.i, the pupil teacher ratio has been represented during the year from 1960-61 to 2012-13. It was found that the teacher pupil ratio is increasing in nature. The Mean teacher pupil ratio was 30.26 and the highest in the year 2011-12 and 2012-13 with a Mean of 40 and the lowest rate was found in the year 1973-74 with Mean value of 24. Though the ratio is showing an increasing trend in initial periods, it was found to be fluctuating in the latter part.

3.5.a.ii) Compound Annual Growth Rate of Pupil Teacher Ratio in India

In this section, the study tries to analyse the compound annual growth rate of teacher pupil ratio in India during the year 1960-61 to 2012-13. Here line diagram has been used to show the trend line of the compound annual growth rate.

Figure 3.5.a.ii: Compound Annual Growth Rate of Teacher Pupil Ratio in India

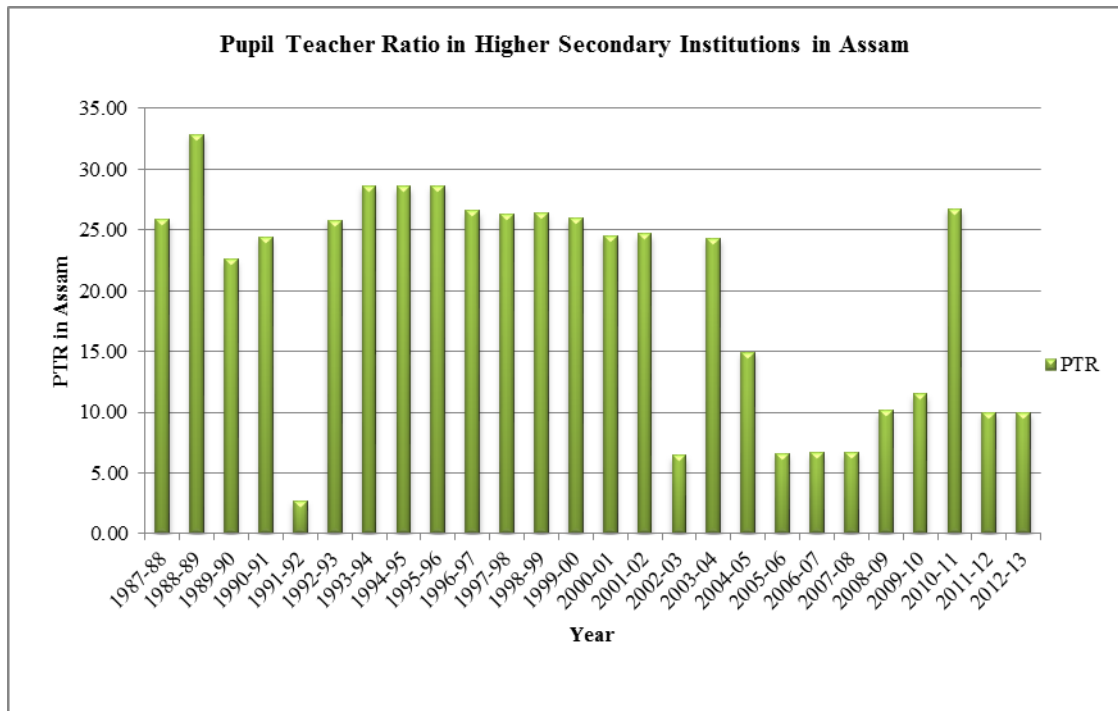


In the above figure 3.5.a.ii, the compound annual growth rate of the teacher pupil ratio has been depicted during the year 1960-61 to 2012-13. The growth rate of the teacher pupil ratio was found to be fluctuating as well as declining in nature. The mean value of compound annual growth rate was found to be 0.0056 throughout the period. The highest growth rate of teacher pupil ratio was found during the year 1973-74 with the rate of 0.0097 and the lowest rate is found during 2009-10 with the rate of 0.0005. The rate of growth is almost same compared to other period from the initial period to 1978-79 but started declining thereafter. It has been noticed that growth rate is jumped from 0.0005, which was the lowest rate during the period 2009-10 to 0.0031 in the next period itself which was noticed a huge difference between the two periods and again decline to 0 during 2012-13.

3.5.b.i) Pupil Teacher Ratio in Higher Secondary Institutions in Assam

In this section, the Pupil Teacher Ratio of Higher secondary institutions have been given along with its Compound Annual Growth Rate in Assam. It is found that the pupil teacher ratio in Assam is better than that of the all India level.

3.5.b.i) Pupil Teacher Ratio in Higher Secondary Institutions in Assam

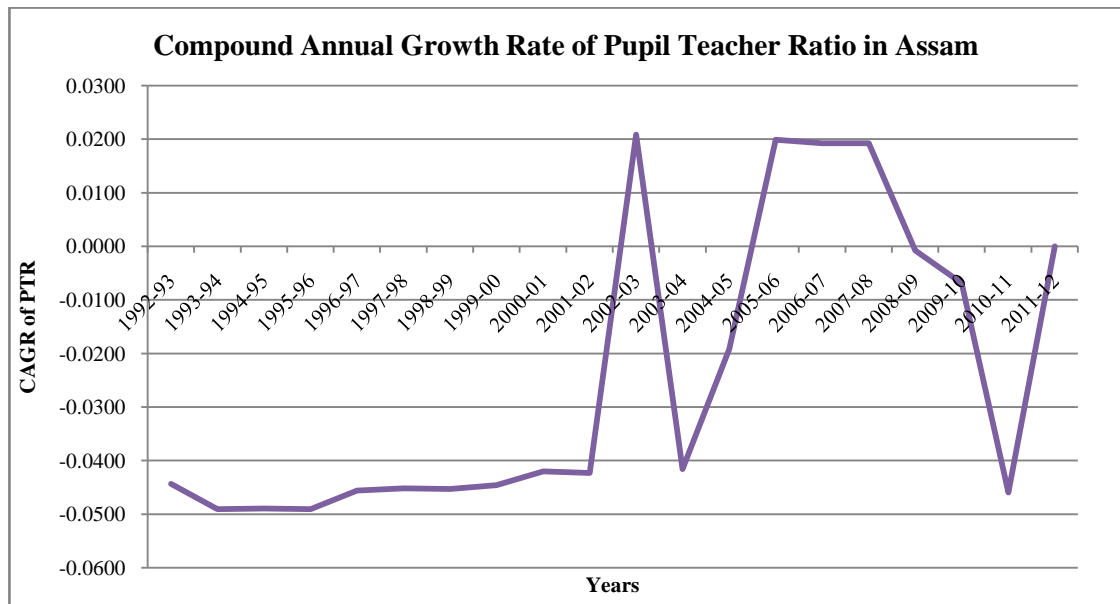


In the above figure 3.5.b.i., the Pupil Teacher Ratio has been represented in Assam during the period 1987-88 to 2012-13. During the beginning period, the Pupil Teacher Ratio (PTR) is almost same over the period from the year 1992-93 to 2001-02. But we can see a sudden fell in Pupil Teacher Ratio in the next year 2002-03, registered at 6.46 pupils per teacher and again increased in the next period in the year 2003-04 with 24.32. The highest PTR was found to be in the year 1987-88 with 32.84 and the lowest was found to be in the year 1991-92 that 2.68. The Mean PTR during the year 1987-88 to 2012-13 was 19.55 which are consider to be better PTR, much better than the Right to Education norm.

3.5. b.ii) Compound Annual Growth rate of Pupil Teacher Ratio in Assam

In this section, the Compound Annual Growth Rate of the Pupil Teacher Ratio has been given during the year 1992-93 to 2012-13.

Figure 3.5. b.ii. Compound Annual Growth Rate of Pupil Teacher Ratio in Assam



In the above diagram 3.5.b.ii., the compound annual growth rate of pupil teacher ratio has been depicted. From the above diagram, it is clear that the compound annual growth rate of pupil teacher ratio is showing a fluctuating trend. The Mean compound annual growth rate is found to be -0.0246 during the period 1992-93 to 2011-12 and the highest rate was found to be 0.0209 during the year 2002-03 and the lowest was -0.0491 during the year 1993-94.

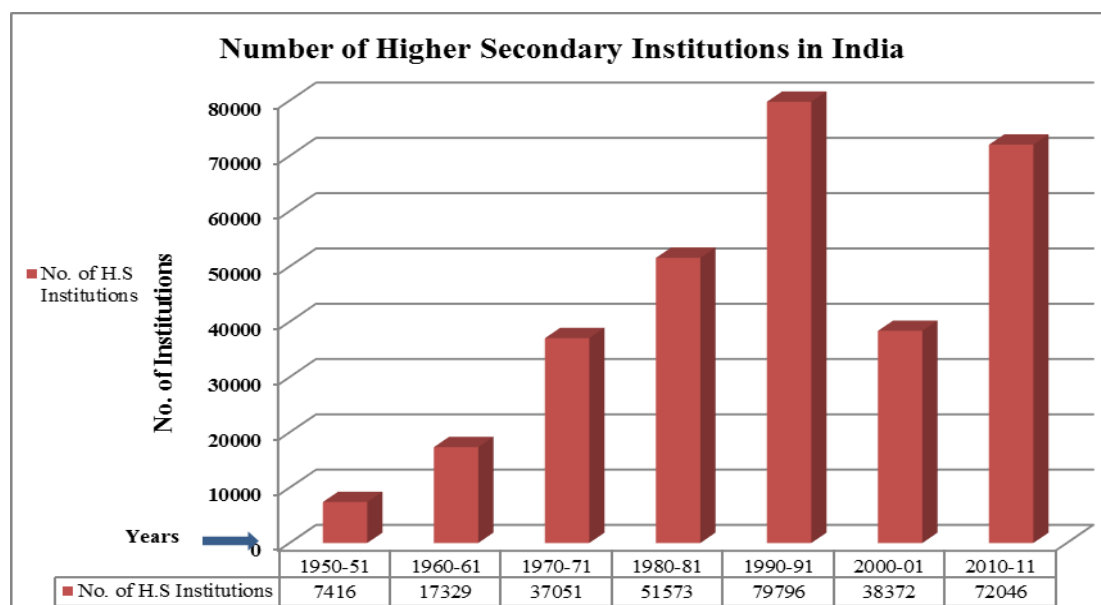
3.6. Higher Secondary Educational Institutions in India and Assam

Indian education system is based on British model and now it is changing over time. The structure is based on the National Policy on Education 1992. The Ministry of Human Resource Department is responsible for all educational level in India. This department consists of two departments, one is Department of School Education and Literacy and another one is the Department of Higher Education (Education System India Report 2011).

3.6.a Number of Higher Secondary Institutions in India

In this section the total number of higher secondary institutions in India is given to represent with the help of column diagram.

Figure 3.6: Number of Higher Secondary Educational Institutions in India

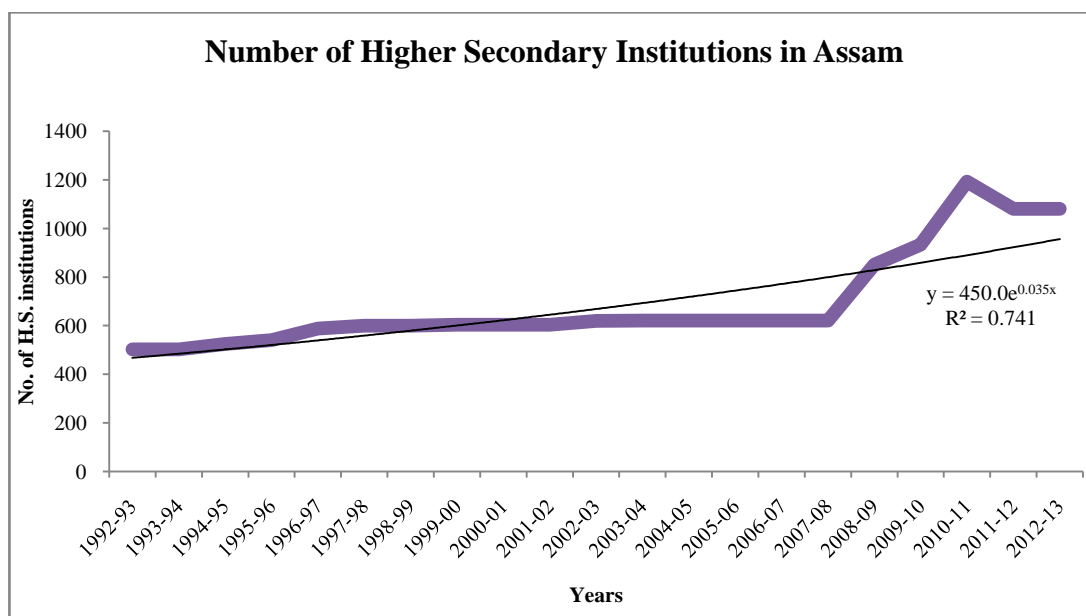


In the above figure 3.6, the number of growth of higher secondary educational institutions of India has been shown during the year 1950-51 to 2010-11. From the above diagram it is clear that the number of institution is the highest during the year 1990-91 with 79796 and it has been increasing constantly over the years. The Mean growth of the institution has been 43369 per decade.

3.6. b. Number of Higher Secondary Institutions in Assam

In this section, the number of Higher Secondary Institutions is given to show with help of a column diagram during the year 1992-93 to 2012-13.

Figure3.6.b. Number of Higher Secondary Institutions in Assam



In the above diagram 3.6.b., the growth of total number of higher secondary institutions in Assam has been very impressive. It is showing an increasing trend during the years 1992-93 to 2012-13. The Mean rate of increase in number of institutions has been 691.52. The number of institution was found to be the highest in the year 2011-12 with 1192 institutions and the lowest in the years 1992-93 and 1993-94 with 502 institutions.

3.7. Conclusion

In this chapter, we tried to analyse a comparative study between India and Assam so that we come to know the position of Assam vis-a-vis all India level. Here we found that the expenditure made on secondary education in Assam was less compared to the all India level. On the other hand the Pupil Teacherratio was found to be very good compared to the all India level. The enrolment in higher secondary institutions in Assam was also found to be decreasing in nature. Literacy rate in Assam was increasing as per the census report and the literacy rate gap between male and female was also found to be decreasing.

CHAPTER IV

RESULTS OF PRIMARY SURVEY

4.1 Introduction

In this chapter we are trying to present the possible results which we obtained from our primary survey. Through these date, we try to analyse the performance which is proxy of the test score which we have tested in the written test held during our field survey. This performance of the students has been analyses from different point of view, such as: the place-wise performance, gender-wise performance, institutional-wise performance, etc. We also try to analyse the descriptive statistics, which are drawn from the tables and interpret the result to assess the performance.

4.2. Place wise performance of the Students

In this section we try to analyse the mean value, standard deviation and variation of the performance of the students in different three districts of Assam. Here we have taken the test score of three subjects which are English, Economics and Political Science. Total test score was 30 containing 10 marks in each paper. In most of the study they have consider Grade Point Average (GPA) but we are not considering GAP because different system of education has different structure of examination pattern. Therefore instead of GPA we held written test of the students base upon test score which we considering a proxy of performance. Here we can see the differences in mean and standard deviation (SD) in different subjects. Students' test score is taken as performance indicator in this study.

Table 4.2: Place wise performance of the students in Jorhat, Cachar and Bongaigaon:

Place	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Jorhat	62.50	4.18	76.88	1.81	58.96	1.45	51.46	2.05
Cachar	60.76	3.16	69.17	1.96	56.04	1.30	57.08	1.47
Bongaigaon	61.39	3.89	71.25	1.55	53.96	1.70	59.38	2.31

SD=Standard Deviation

Table 4.2 depicts that Jorhat is the best performing district having mean value of 62.50 test score, followed by Bongaigaon and Cachar. In the subject-wise analysis, Jorhat was found to be the best performing district. In the case of English, having mean value with 58.96 and Cachar district was turned out to be the worst performing district with 56.04 of test score compared to Jorhat and Bongaigaon. In Economics, again, Jorhat outnumbered other districts with mean value of 58.96 test score followed by Cachar. But in Political Science subject, Bongaigaon district was performing better than the Cachar and Jorhat with a mean value of 59.38 test score and Jorhat was turned out to be the worst performing district. Along with Mean, the above table depicts the Standard Deviation (SD) as well. The value of SD is higher in Jorhat district in compared to Bongaigaon and Cachar i.e. 4.18. Whereas in the English subject, Cachar district scored the highest Standard Deviation showing low performer with 1.96, followed by Jorhat and Bongaigaon. But in both Economics and Political Science, the district of Bongaigaon was found to be performing worst with the SD value of 1.70 and 2.31 respectively.

4.3. Institution wise performance of the students

In this section we observed the institution wise performance in Assam and here we try to find out the Mean differences among the institutions along with the Standard Deviation.

Table no. 4.3: Institution wise performance of the institution in Assam

Place	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Government/ Provincialised College	51.67	3.35	67.22	1.98	46.39	1.07	41.39	2.21
Govt. Higher Secondary School	57.13	3.12	65.83	2.06	51.94	1.37	53.33	1.35
Private Higher Secondary School	68.19	1.84	78.33	1.20	58.75	1.30	68.33	1.34
Junior College	69.17	3.47	77.50	1.42	67.50	1.39	61.67	1.90
Other (Private College/Group of Institutions)	68.75	3.00	79.17	1.41	64.17	1.35	63.75	1.74

SD=Standard Deviation

In the table 4.3, institution-wise mean percentage has been given. The performance, in term of test score, of the Junior colleges have been found to better compared to other four types of institutions with a Mean percentage of 69.17 test score, while the government or provincialised colleges were turned out to be the worst performing system with a Mean of 51.67. But in the subject of English, other private institutions were performing well with a Mean of 79.17 test score, followed by Private Higher Secondary institutions. While the worst performing institution was the government Higher Secondary institutions. In both the subjects of economics and political science, the government colleges were performing the worst with a Means of 46.39 and 41.39 test scores respectively. While the junior colleges were performing better in Economics and Private Higher Secondary in Political Science.

Again in the same table, institution-wise standard deviation has been given. In total Junior college has got the highest value of deviation with 3.47 and private higher secondary got the lowest value of deviation with 1.84. On the other hand, in English subject, Private Higher Secondary showed the lower SD value with 1.20 and Government Higher Secondary with the higher SD value of 2.06. In the subject of political science, private higher secondary has got the lowest standard deviation with 1.34 and the higher SD was found in the Government or Provincialised College. In

the Economics subject, the highest standard deviation has been found in Junior college and the lowest in the Government or Provincialised College.

4.4. Gender wise performance of the students

In this section, we are going to analyse the gender wise performance through standard deviation (SD) of the students in Assam using their Mean test score.

Table 4.4: Gender wise performance of the Student in Assam

Gender	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Male	59.44	3.55	69.72	1.69	53.06	1.45	55.42	1.99
Female	63.66	3.86	75.14	1.88	59.58	1.48	56.53	2.01

SD=Standard Deviation

Table 4.4 showed that the female students are performing better than that of the male student counterparts with a Mean test score of 63.66, while the male students' Mean test score was turned out to be 59.44. We can say that the overall performance of the female students is better than that of the male students. The Mean scores of the female students in subjects English, Economics and Political science were found to be 75.14, 59.58 and 56.53 respectively, while the test scores of the male students were 69.53, 53.06 and 55.42 respectively. Though there is no huge difference between male and female, it was revealed that the male students performed lesser than that of the female students. The SD value for female and male students was found to be 3.86 and 3.55 respectively. Though female are performing better but their deviation value is more than that of male.

In English subject, value of SD for female was found to be 1.88, compared to that of the male 1.69. But in Economics, the value of standard deviation difference is comparatively less between the female and male with the SD value as 1.48 and 1.45 respectively in Economics. As of the Political Science, it was 2.01 and 1.99 for the female and male students respectively.

4.5. Gender and District wise performance of the students

In this section we try to focus on the gender-wise performance of the students in the sample districts and try to identify the best performing district in term of gender based. Here we want to see the Mean, standard deviation and variance of the performance of the students of three districts which are Jorhat, Cachar and Bongaigaon.

Table 4.5.a): Gender wise performance of the students in Jorhat District

Gender	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Male	59.72	4.12	72.08	2.02	55.42	1.25	51.25	1.98
Female	65.28	4.17	81.67	1.46	62.50	1.57	51.67	2.16

SD=Standard Deviation

Table 4.5.a. shows that in total score again female students are performing better than male students in Jorhat district. Female students having the mean value of 65.28 and that of male are 59.72 which are comparatively worse than female student mean value. In the subjects of English, Economics and Political Science again the students are having the more mean value of 81.67, 62.50 and 51.67 respectively as compared to male students as having low value of 72.08, 55.42 and 51.25 in English, Economics and Political Science respectively.

Again in the table it is notice that female students are having more standard deviation value then male students in every subject's performance in Jorhat. In the performance of total scoring though there is not a huge difference between male and female students though female students are having more standard deviation values than male students. In total scoring female students are having standard deviation value of 4.17 as that of male is 4.12. But in English subject male students are having more standard deviation value of 2.02 as compared to female students with the 1.46. Whereas in the subject of Economics and Political Science female students having more standard value of 1.57 and 2.16 respectively that of male is less which is 1.25 and 1.98 respectively.

Table 4.5.b): Gender wise performance of the students in Cachar District

Gender	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Male	58.89	2.01	68.75	1.45	51.25	1.19	56.67	1.27
Female	62.64	3.96	69.58	2.39	60.83	1.25	57.50	1.67

SD=Standard Deviation

Table 4.5.b. shows that in Cachar district also female students are performing better than male students in total and in each subject. In total female students are having 62.64 Mean and male students are having the Mean value 58.89 is comparatively less than that of female. In English subject also female students scored 69.58 and male students scored Mean value of 68.75. In the subject of Economics also female students are performing better that is mean value of 60.83 and that of male is 62.25. Again in Political Science female students are having Mean value of 57.50 and that of male is 56.67 which is worse performer than female in Cachar district.

Again in the above table the standard deviation has given of each subject of the performance of the students of Cachar. Female students have the value of 3.96 and that of male students are having low value of 2.01. In English subject female students are having the standard deviation value of 2.39 and that of male is 1.45. In Economics subject also female are having the standard deviation value of 1.25 and that of male is 1.19 which is lower than that of female. Again in the Political Science subject also female students are having more standard deviation value of 1.67 then male which is 1.27.

Table 4.5.c): Gender wise performance of the students in Bongaigaon District

Gender	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Male	59.72	4.22	68.33	1.58	52.50	1.85	58.33	2.51
Female	63.06	3.54	74.17	1.50	55.42	1.56	60.42	2.14

SD=Standard Deviation

Table 4.5.c. analyse the gender wise performance of the students in Bongaigaon districts in total and subject wise. If observed the total and also in subject wise here also female students are performing in Bongaigaon is better than that of male students. In total for female it is 63.06 and that of male is 59.72 which are comparatively lower than that of female. In English, Economics and in Political Science also female are performing better that of male having the mean value of 74.17, 55.42 and 60.42 respectively and male are having the Mean value of 68.33, 55.42 and 58.33 respectively which is comparatively lower with that of female.

Again the above table shows us the standard deviation value of the students of Bongaigaon districts. Here the values of standard deviation for the male students are higher than that of female students in all the subjects which have tested. In total scoring male students have the value of 4.22 and female students have 3.54 which are comparatively lower than that of female. If we see the subject wise standard deviation value of the English subject of male students is also higher that is 1.58 and female students are having 1.56. In Economics subject also male students have standard deviation of 1.85 and female have 1.56. Likewise again in Political Science subject male students are having higher value of 2.51 and that of female is 2.14 which are comparatively lower than that of male in Bongaigaon district.

4.6. Gender wise comparative performance of the students in three districts of Assam

In this section gender wise comparative performance that is test score of the students of three districts has been analysed with tabular representation and with the help of bar diagram. Here diagrams are drawn for three districts separately where Means of performance of both male and female students are represented.

Table no 4.6: Gender wise comparative performance of the students of Assam

Districts	Total			English			Economics			Political Science		
	<i>J</i>	<i>C</i>	<i>B</i>	<i>J</i>	<i>C</i>	<i>B</i>	<i>J</i>	<i>C</i>	<i>B</i>	<i>J</i>	<i>C</i>	<i>B</i>
Male	59.72	58.89	59.72	72.08	68.75	68.33	55.42	51.25	52.50	51.25	56.67	58.33
Female	65.28	62.64	63.06	81.81	69.58	74.17	62.50	60.83	55.42	51.67	57.50	60.42

J=Jorhat, C=Cachar and B=Bongaigaon

Figure 4.1 Mean performances of students of three districts of Assam in total subjects

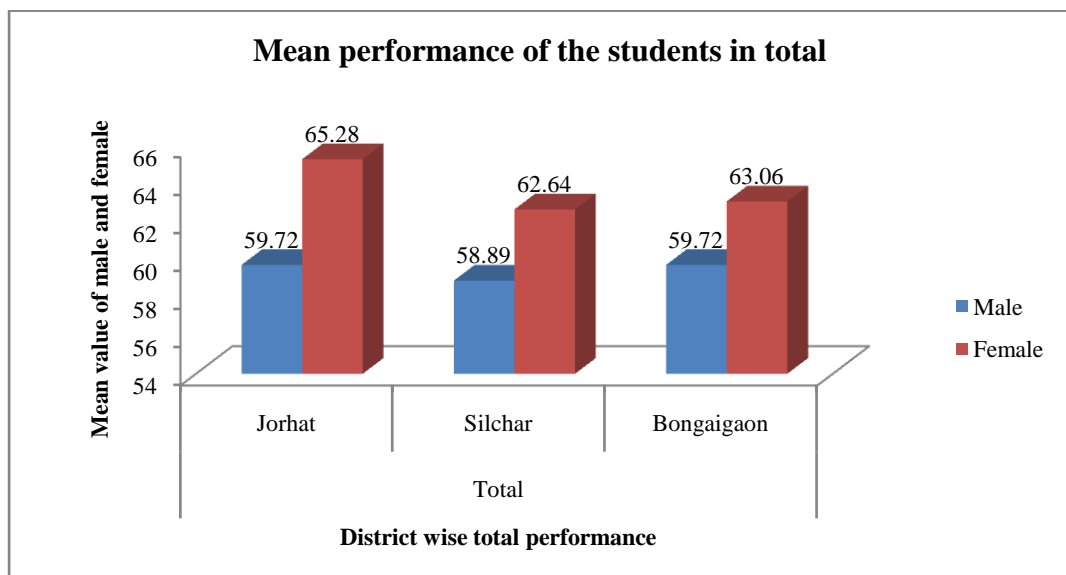
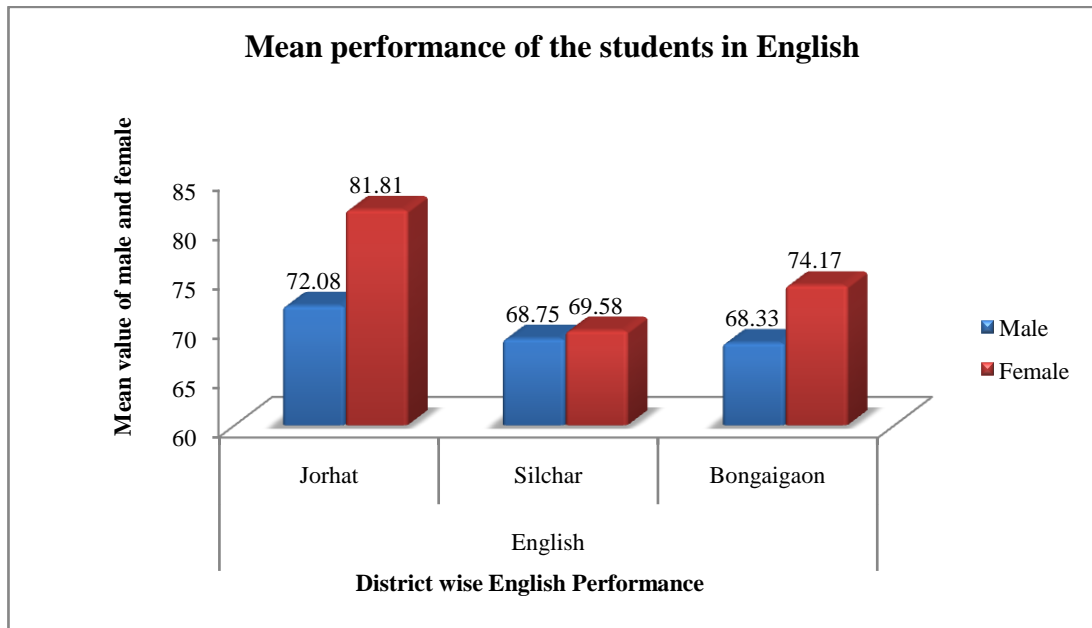


Figure 4.1 shows us the comparative performance of the three districts of Assam in total subjects. Here in total performance Jorhat female students are better compared

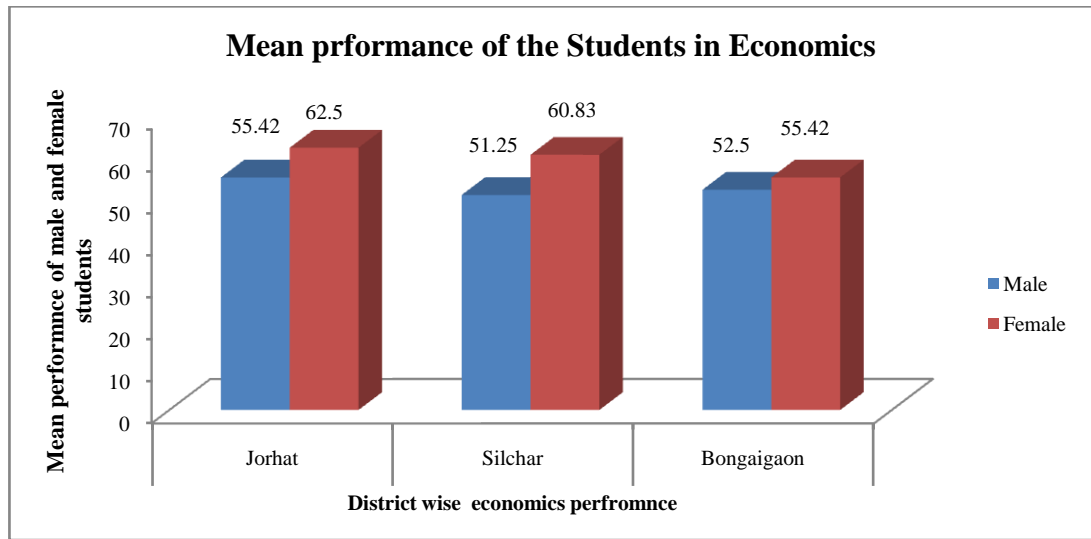
to Bongaigaon and Cachar. Male students' performance in both Jorhat and Bongaigaon are equal and that of Cachar is lowest performer compared to other two districts.

Figure 4.2 Mean performances of the students in English subject



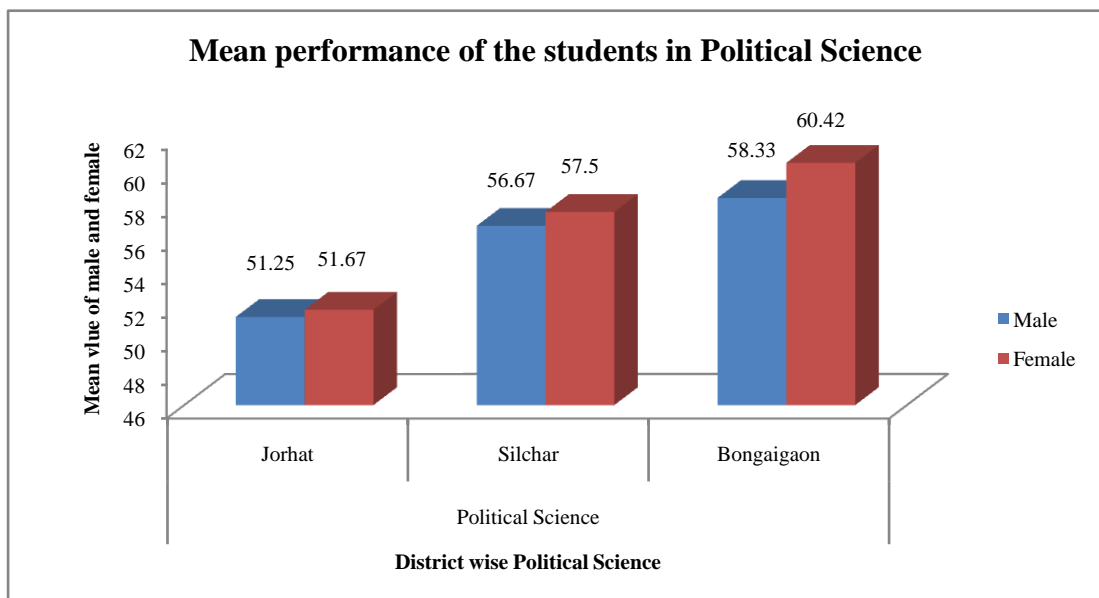
From Figure 4.2, we come to know that in the English subject again female students are performing better than male but the female students of Jorhat district are performing better comparatively with other districts. Cachar district is found to be lowest performer among the three districts. Comparatively male students are performing better in Jorhat district followed by Cachar and then Bongaigaon. But Bongaigaon male students score better than that of Cachar. But in the district of Cachar we have seen that both male and female students comparatively equally.

Figure 4.3 Mean performances of the students in Economics subject



In figure 4.3, it is seen that in the subject of Economics female students are performing better than that of male. Again in Jorhat both male and female students are performing better compared to other two districts that are Bongaigaon and Cachar. But compared to male students female students are performing better. In the subject of Economics Bongaigaon district is the worst performing district.

Figure 4.4 Mean performances of the students in Political science subject



From the figure 4.4, it is found that Bongaigaon district is performing better in Political Science. In the above diagram it is clearly shown that Jorhat is the worst performing state in political science. In three districts Jorhat, Cachar and Bongaigaon female students are found to be performing better than that of male students.

4.7.Public Vs Private performance of the students in Higher Secondary education system in Assam

In this section Institution wise performance of the students of in different subjects has been analysed. Here the Mean value of the test score of the students is considered as performance and the Public and Private institution are compared through the mean value.

Table 4.7: Public Vs Private performance of the Students in Higher Secondary Education system in Assam

Type of Institution	Total		English		Economics		Political Science	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Public	54.40	3.32	66.53	2.01	49.17	1.25	47.36	1.91
Private	68.70	2.82	78.33	1.33	63.47	1.38	64.58	1.68

SD=Standard Deviation

Table 4.7 shows that in Assam Private institutions are well performer than that of Public institutions as the total Mean value of the Private institutions is higher that is 68.70 with that of public institutions is 54.40. In subject wise Means also compared to public institutions, private institutions are having better mean value. In English subject Private institutions are having Mean value of 78.33 and that of Public institutions have 66.53. Again if we notice the Mean value of Economics subject private institutions Mean value which is 63.47 and public institutions are having

49.17. In the subject of Political Science also the performance of the students in private institution is better with a Mean of 64.58 and that of public is 47.36.

In the same table standard deviation of the performance students has been given in total and in different subjects. In total public institution have higher standard deviation value is 3.32 which is higher than the private institution with 2.82. In the subject of English also public institutions are having higher standard deviation value with 2.01 and that of private institution has lower with 1.33. But in Economics subject the public institutions are having lower value of 1.25 and the private institutions with 1.38 value of standard deviation. In the Political Science again the standard deviation value for public is 1.21 and that of private is 1.68 which is higher.

4.8. Gender wise performance of Public and Private Institutions in Assam

In earlier section we discussed about institution wise performance of the students. Now in this table we try to present the gender wise performance of Public and Private Institutions in Assam with their Mean, Standard deviation and Variance values.

Table 4.8: Gender wise performance of Public and Private Institutions

Type of Institutions	Descriptive Statistics	Total		English		Economics		Political Science	
		Male	Female	Male	Female	Male	Female	Male	Female
Public	Mean	53.24	55.56	63.33	69.72	47.78	50.56	48.33	46.39
Private		65.65	71.76	76.11	80.56	58.33	68.61	62.50	66.67
Public	Standard Deviation	3.42	3.22	1.87	2.12	1.27	1.24	2.02	1.82
Private		2.59	2.76	1.20	1.43	1.44	1.10	1.70	1.66

In the above table 4.8, gender wise Mean performance of the male and female students has been presented. The overall performance of the Private Institutions is better compared to that of Public Institution. The Mean performance of the female students of Private Institutions is better than the Public Institution in Assam. If we see the gender wise performance of the students of Assam then female students are performing better than male students. Here in total score the Mean value of the female is of Private Institution is performing better with an Mean of 71.76 as compared to male of Private Institutions is 65.65 which is lower. In Public Institutions also female students are performing better than that of male students with a mean value of 55.56 and that of male is 53.24. In English subject also Private institutions are performing better than Public Institutions but comparatively female students are performing better in both the institutions. In Private Institutions the Mean value of female students is 80.56 which are quite higher than that of male in the same institutions with a Mean of 76.11 as well as better than Public Institutions female students having Mean value of 69.72. In Economics subject also female students of Private Institution is having the Mean value of 68.61 and that male is 58.33 and that female student of Public Institution is 50.56 and male students are having Mean value of 47.78.

In the same table standard deviation of the students of Public and Private Institutions has been given. In the table it is observed that the values of standard deviation of Public Institution are more than that of Private Institutions in total scoring which is 3.42 for male and 3.22 for female. The value of Standard deviation of Private Institution is lower compared to Public Institutions but here the situation is different as female deviation value is higher as compared to male. In the subject of English the deviation value of Public institution is higher in both the type of Institutions the female standard deviation values are higher that is 2.12 for Public Institution female and 1.43 for Private Institution female that of males are 1.87 for Public Institution male and 1.43 for Private Institution male. In Economics subject male student's deviation value is higher compared to female students in both types of Institutions. In Public Institutions standard deviation value for male is 1.27 and for female it is 1.24 and that of Private Institution the value for male is 1.44 and for female is 1.10. In the subject Political Science also standard deviation value of male is higher than that of female at the same time Public Institutions value is higher than the Private

institutions. In Public Institutions the deviation value for male student is 2.02 and that of female is 1.82 which is lower and in Private Institutions male students value is 1.70 and that of female is 1.66.

4.9. Performance of the Students and Parents' Income:

In this section performance of the students and related to parents' income has been given. The descriptive statistics like Mean, correlation, standard deviation of the students' has calculated. Mean is calculated to see the performance, correlation is calculated to know the relationship between father's income and performance of the students and standard deviation is calculated to know the deviation from the mean value. The table of descriptive statistics has been given below.

Table4.9: Performance of the students and Parents' Income

Descriptive Statistics	Total	English	Economics	Pol. Science
Mean	61.55	72.43	56.32	55.97
Correlation	0.31	0.18	0.22	0.27
Standard Deviation	8.51	2.83	2.06	2.25

In the above table the Mean performance of the students is 61.55 in all three districts of Assam. Three subjects has been tested through questionnaire survey are English, Economics and Political Science. Among three in the subject of English students are performing better than Economics and Political Science. The Mean value in English subject is 72.43 which is highest performer followed by Economics that is 56.32 and Political Science has the lowest performance that is 55.97. The correlation among the subjects and the Parents income is not significant. Parents' income and total subjects is only 0.31, with English subject it is 0.18; with Economics its only 0.22 and that of Political Science it is 0.27 which is not significant one. In the standard

deviation for total it is 8.51, for English it is 2.83 that of Economics is lower that is 2.06 and Political Science it is 2.25.

4.10. Preferences Given by the Students for Joining the Institutions

In this section the reason behind the students joining the institutions has been included by the students of higher secondary institutions of Assam. Here separate table has been prepared for both Public and Private Institutions of Assam.

Table no. 4.10. Preferences Given by the Students for Joining the Institutions

Serial No.	Reasons	Public Institutions	Rank	Private Institutions	Rank
1	Suggested By Siblings/Cousin	55.56	5th	68.87	3rd
2	Less Fee	64.29	3rd	79.17	2nd
3	Good In-fracture	65.67	2nd	56.94	5th
4	Good Education Quality	37.90	7th	21.43	7th
5	Near to Your Place	61.90	4 th	60.52	4th
6	Regular Classes	44.44	6th	32.34	6th
7	Seat Easily Available	70.44	1st	81.94	1st

The above table explains the preferences given by the students for joining the institutions. In both the cases the first reason behind joining the institutions is Easily Seat Available and the last reason is Good Educational Quality.

4.11. Conclusion

In the above section some of the descriptive statistics analyses have been made to understand the performance and factors influencing to join the institutions. To obtain our results based on our study objectives necessary descriptive statistics along with appropriate diagram has been used for the study. We found that in place wise performance, Jorhat district performs is well among the three districts. In institution wise performance, Junior Colleges perform better than other four types of higher secondary institutions in Assam. Again female students are performing better than that of male. In totality, it is clear from the chapter that Private Higher Secondary Education systems in Assam are performing better than that of Private Higher Secondary Education system in Assam.

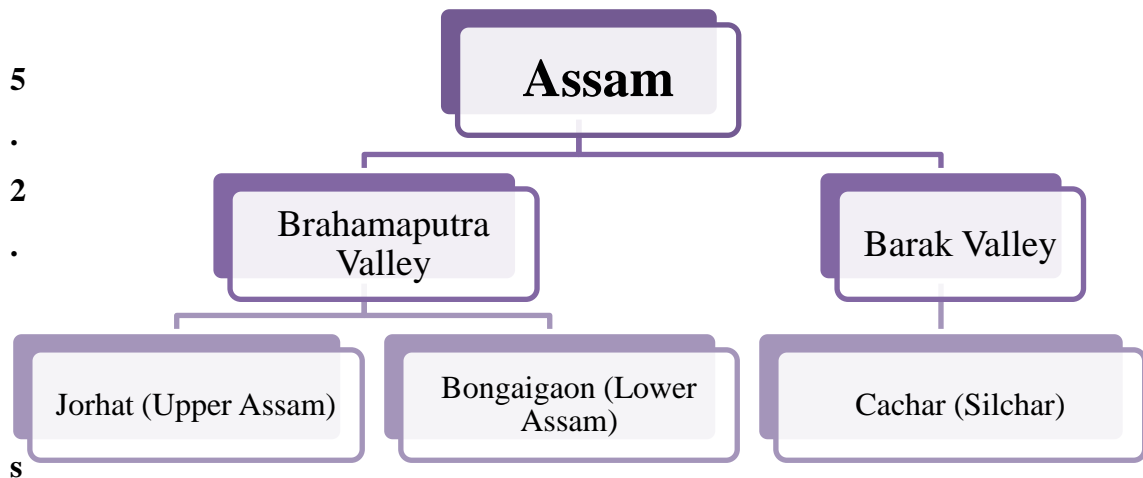
CHAPTER V

ANAYLSIS OF DATA AND RESULT INTERPRETATION

5.1. Introduction

In this chapter, the study tries to analyse the results of primary data of the field survey. Through this, we try to find out the performance of the students of the higher secondary institutions in Assam. For the purpose, altogether 144 students have been selected from different institutions that offer higher secondary course in Assam. Leaving the hill sections, the state has been divided into two valleys— Brahmaputra valley and Barak valley. Geographically, the Brahmaputra valley is bigger than the Barak valley; therefore the former is further divided into two parts that are Upper Assam and Lower Assam. To fulfil the objectives of the study, apart from the test score (written test), the study framed three types of questionnaire, first one is related with the socio-economic background of the students, second one is for student's co-curricular activity and third one is for institutional details. The survey conducted on three districts of Assam—Jorhat from Upper Assam and Bongaigaon district lower Assam (both from Brahmaputra valley), Cachar district from the Barak valley (refer to Fig. 5.1). To know about the performance of the students written test/examinations, as given in the methodology, has been conducted and the score/mark obtained from it is considered as performance of the student. Further, to understand the factor(s) influencing the performance, descriptive statistics and regression exercises have been done.

Figure 5.1: Primary Survey Sample Design



5.2. Results of Primary Survey

The result of the primary survey of the students of higher secondary students' of Assam has been analysed in this section. To get the appropriate results the primary study has been divided into many parts.

5.3. Variables of the Study

The main objective of the study is to find out the performance of the students of the higher secondary education in Assam. Here, the performance of the students (test score) is the dependent variable. For this purpose, the institutions offering higher secondary course may be divided broadly into two types—public and private institutions. Further the public institutions can be sub-divided into two—public college/provincialized college/government college and government higher secondary school. Likewise, the private institutions offering higher secondary course can be sub-divided into three—Private Higher Secondary Schools, Junior Colleges and Private Colleges/Group of Institutions. In this manner, the higher secondary level of education in Assam is, at present, offered by five institutions— 1) Public/Provincialized/Government College, 2) Government Higher Secondary School,

3) Private Higher Secondary Schools, 4) Junior Colleges, and 5) Private College/Group of Institution.

5.4. Descriptive Statistics of the study

In this section the descriptive statistics of the variables has been given which is divided into three sections. The table is as follows:

Table 5.4 Descriptive Statistics of the Variables of the Study

Variables	N	Mean	SD	Minimum	Maximum
Type of Institution	144	2.75	1.43	1	5
Age	144	17.21	0.83	16	20
Sex	144	1.5	0.51	1	2
Caste	144	2.39	1.31	1	4
Religion	144	1.41	0.81	1	5
Place of Origin	144	2.15	0.71	1	3
Family Details					
Number of Family Member	144	5.10	1.87	2	15
Number of Siblings	144	2.22	1.47	0	10
Number of School/College Goer in the family	144	1.82	1.04	0	5
Number of Bread Earner in the Family	144	1.89	0.44	0	2
Socio-Economic Background					
Father's Age	144	45.99	16.69	0	79
Father's Occupation	144	3.45	2.51	0	9
Father's Education	144	3.24	1.55	0	6
Father's Annual Income	144	2.18	1.01	1	5
Mother's Age	144	42.76	8.27	0	70
Mother's Occupation	144	6.88	2.47	0	8
Mother's Education	144	3.15	1.35	0	5
Mother's Annual Income	144	1.19	0.55	1	3.
Total Income of the Family	144	2.37	0.97	1	5
Place of Staying	144	1.35	0.98	1	5
Time Spent in Different Activities					
Hours Spent in Outdoor Game	144	1.11	1.08	0	4
Hours Spent in Indoor Game	144	1	0.80	0	5
Days Spent in Cultural/Co-curricular Activities	144	0.88	1.31	0	7
Days Spent in Voluntary Organization/Service Scheme	144	0.27	0.62	0	3
Hours Spent in Computer for Study	144	0.57	0.82	0	3
Hours Spent in Mobile/Computer Game	144	1.50	1.14	0	5
Hours Spent in Social Networking Site	144	1.64	2.04	0	12
Average Class Attended in a Week	144	5.13	0.94	3	9
Private Tuition	144	1.40	0.51	0	2

No. of Assignment/Homework in a Week	144	4.96	7.57	0	36
No. of Examination in an Year	144	3.76	3.19	1	15
Institutional Facilities					
Library Facilities	144	1.17	0.37	1	2
Computer Laboratory	144	1.11	0.31	1	2
Drinking Water	144	1	0	1	1
Canteen	144	1.33	0.47	1	2
Lavatory	144	1.05	0.22	1	2
Separate Common Room for students	144	1.47	0.50	1	2
Sick Room	144	1.33	0.47	1	2
First Aid	144	1.36	0.48	1	2
Guardian Teacher Meeting	144	3.30	1.13	1	5
Guardian Teacher Student Meeting	144	3.30	1.37	1	5

Source: Author's estimation

In the above table, descriptive statistics of the study have been given in three parts— Socio-economic background of the students, Time spent in different activities by the students and Institutional facilities. In the above table number of observations, mean value, standard deviation, maximum and minimum has also been calculated for each and every variable taken for the study which may influence the performance of the students in Higher Secondary Education system in Assam.

5.5. Public Vs Private Performance of the Students in Higher Secondary Education in Assam

In this section a comparative study with the help of regression analysis between Public and Private Institutions has been made. Here the performance of the students', test score value is regressed by a number of independent variables to get the comparative outcome that which type of institution performs well in higher secondary institutions in Assam. For that reason, the study runs t-test exercise has been done and found that there is mean differences is -4.29 and the result of t-test is found to be significant that is -8.3675. Therefore we can say that Private Institutions are performing well compared to Public Institutions in Assam.

Table 5.5. a) Public Vs Private Performance

Variables	Co-efficient
D ₁ (Public Institution)	-4.39*** (0.98)
D ₂ (Female)	0.51

	(0.73)
Caste	
D ₃ (General)	-0.65 (0.89)
D ₄ (ST)	-0.88 (1.38)
D ₅ (OBC)	-2.27** (0.87)
Religion	
D ₆ (Hindu)	-1.04 (0.87)
D ₇ (Muslim)	-0.98 (2.45)
D ₈ (Others)	-5.20* (2.71)
Place of Origin	
D ₉ (Semi Urban)	-0.96 (0.79)
D ₁₀ (Rural)	-1.13 (0.90)
D ₁₁ Tuition	
Institutional Facilities	
Library Facilities	-1.15 (1.15)
Canteen	-0.14 (0.89)
Common Room	-0.05 (0.96)
Sick Room	3.14*** (1.12)
First Aid	-0.62 (0.83)
Family Details	
Number of Family Member	-0.42** (0.19)
Number of School Goer in the Family	4.2 (0.31)
Number of Bread Earner in the Family	-0.10 (0.75)
Total Income in the Family	0.36 (0.35)
Socio-Economic Background	
Father's Education	0.72** (0.30)
D ₁₂ (Not Working)	1.79 (1.22)
D ₁₃ (Govt. Employee)	-0.67 (0.79)
D ₁₄ (Pvt. Employee)	-1.18* (0.61)
D ₁₅ (Agriculture)	0.18 (0.86)
D ₁₆ (Daily Wage Earner)	-0.73 (1.15)
D ₁₇ (Pensioner)	-0.41 (0.99)
Mother's Age	0.048 (0.04)
D ₁₈ (Not Working/Housewife)	1.04

	(1.27)
D ₁₉ (Service both Govt./Pvt.)	2.26 (1.48)
Mother's Education	-0.13 (0.29)
Mother's Income	0.85 (0.68)
Time Spent in Different Activities	
Outdoor Game	-0.10 (0.35)
Indoor Game	0.03 (0.35)
Cultural/Co-curricular Activities	0.02 (0.24)
Voluntary Organization/ Service Scheme	-0.38 (0.24)
Use of Computer for Study	0.86** (0.36)
Use of Computer for Game	0.07 (0.28)
Social Networking Site	-0.27 (0.18)
Average Class Attended	0.34 (0.46)
Number of Examination	0.14 (0.10)
D ₂₀ (Staying in home)	0.07 (0.48)
Constant	15.54*** (4.76)
N	144
R ²	0.5993
F	3.60

*** Significant at 1% level

** Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

In the above table it is found that the Public institution coefficient ≈ -4.39 which means that holding all other factor constant the average performance of the Public institution is lower than the Private institution in higher secondary in Assam. Again it is found that the compared to Schedule Caste, other social categories in Assam like the General, Schedule Tribe and Other Backward students were found to be performing poorly and the average performance of the Other Backward Caste students found to be significantly negative with coefficient value of ≈ -2.65 . If we see the religion wise performance of the students it is found that compared to Christian students, the performance of Hindu, Muslim and other category religion are performing poorly and the average performance of the other category students is found to be statistically negative with the coefficient value of ≈ -5.19 . It is found that sick room facility in the institutions has got positive significant impact on the

performance of the students. It means, the institutions having sickroom facility performs students, increases on an average by 3.14 more. Number of family member has got negative impact on the performance of the students. If the number of family member increases by one, the decrease in performance of the student in higher secondary education has been on an average of 0.42. In socio-economic side, a child of non-working (unemployed) father performs poorly, but the Private employee father's children's are significantly negative with the coefficient value of ≈ -1.18 . Again it is found that father's education has got positive performance of the student. It is found that when the father's education is increases by one year the performance of the students in Higher in Assam on an average increases by 0.73. It is found that use of computer for study by the students has positive significant impact on the performances of the students. If the use of computer for study is increases by one year the performance of the students on an average increases by about 0.86.

In the above section we try to analyse overall significance of factors that affect the performance of the students in higher secondary in Assam. In this section we try to extract the factors which influence both the institutions' performance of the students separately are tested. For the analysis we have taken the socio-economic Variables, Institutional Variables and factors which may related with students different activities are taken. The regression analysis is as follows:

Table 5.5. b) Factors Affecting Public Vs Private Individually

Variables	Public	Private
	Coefficients	
Family Details		
Number of Family Member	-0.52* (0.29)	-0.32 (0.37)
Number of Siblings	0.61* (0.35)	0.17 (0.49)
Number of School/College Goer in the Family	-0.02 (0.49)	0.49 (0.51)
Number of Bread Earner in the Family	-0.96 (1.23)	-0.50 (0.97)
Total Income in the Family	0.85 (1.02)	-0.09 (0.78)
Socio-Economic Background		
Father's Age	-0.09** (0.04)	-0.04 (0.04)
Father's Occupation	0.17 (0.25)	-0.21 (0.19)
Father's Education	1.05*** (0.39)	0.92** (0.45)

Father's Income	0.11 (1.02)	-0.002 (0.86)
Mother's Age	0.08 (0.05)	0.21** (0.08)
Mother's Occupation	-0.11 (0.21)	-0.16 (0.28)
Mother's Education	-0.64** (0.38)	-0.46 (0.53)
Mother's Income	0.32 (0.98)	0.57 (1.27)
Time Spent in Different Activities		
Hours Spent in Indoor Game	-0.45 (0.44)	0.10 (0.48)
Hours Spent in Outdoor Game	-0.51 (0.65)	0.20 (0.44)
Days Spent in Cultural/ Co-curricular Activity	0.12 (0.31)	-0.30 (0.37)
Days Spent in Voluntary/Service Scheme	-0.53 (0.76)	-0.32 (0.71)
Hours Spent in Computer for Study	0.52 (0.72)	0.86* (0.49)
Hours Spent in Mobile/Computer Game	-0.08 (0.45)	0.24 (0.34)
Hours Spent in Social Networking Site	0.51* (0.27)	-1.01*** (0.28)
Average Class Attended in a Week	1.02 (1.07)	2.36** (1.03)
No. of Assignment/Homework in a Week	0.17 (0.64)	0.11 (0.33)
No. of Examination in an Year	0.16 (0.42)	-0.46 (0.42)
Guardian Teacher Meeting	0.80 (3.99)	-2.28 (6.11)
Guardian Teacher Student Meeting	0.42 (0.98)	-0.38 (6.04)
Constant	4.30 (10.21)	4.25 (6.04)
N	72	72
R ²	0.5443	0.5972
F	1.83	1.91

*** Significant at 1% level

**Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

In the above table we found that there are significant differences between Public and Private Institutions and the factors which affect the student's performances in Higher Secondary in Assam. Here, the study found that the factors which affects significantly on the performances of the students of Public Higher Secondary are Number of Family Member, Number of Siblings, Age of father, Education level of father, Educational level of mother and Hours spent in Social networking site. There is negative significant relation between performance and number of family member. If the number of family member increases by one, the performance of the students

on an average decreases by 0.52. There exists positive significant relation between educational level of father and performance. When the level of father's education increases by one year on an average the performance of the student's increases by 1.05. There is positive relation between number of siblings and performance of the student. Interestingly, in public institution, if the number of sibling increases by one, on an average, the performance of the student also increases by 0.61. Again the study found negative significant relation between age of father and student's performance. As the age of the father increases by one, the performance of the students, on an average decreases by 0.08. But it is found that there is exists negative significant relation between performance and mother's education. It is found that when the education of. The mother increases by one year on an average the performances of the student decreases by 0.64. Whereas it is found that there is positive significant relation between hours spent in social networking site and performances of the student. If the hours spent in social networking site increases by one year on average the performances of the student increases by 0.51.

On the other hand it is found that the performances of the private institution's students are influences by Father's education level, Mother' age, Hours spent in computer for study, Hours spent in social networking site and average class attended by the student in a week. It is found that there is positive significant relation between father's age and performances of the students. If the education of the father increases by one year the performances of the students on an average increases by 0.92. There exists significant positive relation between mother's age and performance. If the mother's age has increases by one year on an average the performances of the student increases by about 0.21. There exists positive significant relation between performances of the students and hours spent in computer for study by the students. If the hours spent in computer for study increases by one the performances of the students in higher secondary on an average increase by about 0.86. Whereas it is found that there exists negative significant relation between hours spent in social networking site and performance of the student. When the hours spent in social networking site increase by one hour on average the performances of the students' decreases by about 1.01. Therefore we found that the factors which influence the students performances of Public as well as Private different from each other.

5.6. Institution Wise Performance of the Higher Secondary Systems in Assam

In this section, a comparative analysis of the regression model has been done to show the type relationships among the institutions and their performances in Higher Secondary Education System in Assam.

5.6. Institution wise Performance of the Higher Secondary Student's

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Government/Provincialised College		-1.64** (0.72)	-4.96*** (0.80)	-5.25*** (0.80)	-5.12*** (0.80)
Government Higher Secondary School	1.64** (0.72)		-3.32*** (0.80)	-3.61*** (0.80)	-3.49*** (0.80)
Private Higher Secondary School	4.96*** (0.80)	3.32*** (0.80)		-0.29 (0.80)	-0.17 (0.88)
Junior Colleges	5.25*** (0.80)	3.61*** (0.80)	0.29 (0.88)		0.12 (0.88)
Private College/Group of Institution	5.12*** (0.80)	3.49*** (0.80)	0.17 (0.88)	-0.12 (0.88)	
Constant	15.5*** (0.51)	17.14*** (0.51)	20.46*** (0.62)	20.75*** (0.62)	20.62*** (0.62)
N	144	144	144	144	144
R ²	0.3548	0.3458	0.3458	0.3458	0.3548
F	19.11	19.11	19.11	19.11	19.11

*** Significant at 1% level

**Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

In Model 1, it is found that compared Government/Provincialised College, on an average all other four types of institution is performing better and found statistically significant. Among all types of institutions, in Model 1, Junior Colleges performed significantly better with coefficient value 5.12. In Model 2, in comparisons with Government Higher Secondary Schools, on an average Government/Provincialised Colleges are performing poorly, but it is found that on an average other three types of institutions are performing better. Again in Model 3, it is found that compared to Private Higher Secondary Schools on an average Government institutions are performing worse and other private institutions that are Junior Colleges and Others/Group of institutions are performing better. In Model 4, it is found that compared to Junior Colleges all other type of institutions are performing worse. If we see the performance of the Model 5 it is found that on average Junior Colleges

are performing better and both Government Institutions are significantly performing worse and Private Higher Secondary Institutions are also performing worse.

5.7. Gender Wise Performance of the Students

In this section the gender wise performance of the students of the Higher Secondary students in Assam has been regressed.

Table 5.7. Gender Wise Performance

Variables	Gender
Male	
Female	1.26** (0.62)
Constant	17.83*** (0.44)
N	144
R ²	0.0286
F	4.19

*** Significant at 1% level

**Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

Compared to male students in higher secondary level of education, in Assam, female students are statistically significantly performing better in Assam than that of male with co-efficient value of 1.26.

5.8.Socio-Economic Background of the Students

In the previous section we found the impact of all the variables to know the overall significance on the performances of the students. But in this section we try to see the impact on socio-economic conditions separately on the performances of the students. According to Considine and Zappala (2002), if the parents are socially, economically and educationally advanced then their children can achieve higher educational attainment and become intelligent. Socio economic statuses according to them are family income, parental education and parents' occupation. Similarly Graetz (1995), argues that students from higher socio economic background performs better than

students from lower socio economic background. In this section Ordinary Least Square (OLS) has been run to know the factors which are influencing the performance of the students in higher secondary education in Assam.

Table 5.8. Socio-Economic Factors Affecting Performance

Variables	Coefficient
Fathers' Occupation	-0.0444 (0.133)
Fathers' Education	0.875*** (0.31)
Fathers' Annual Income	0.658* (0.342)
Fathers' Drinking Habit	0.745 (1.00)
Fathers' Smoking Habit	1.023 (0.99)
Fathers' Age	-0.128*** (0.037)
Mothers' Occupation	-0.075 (0.152)
Mother's Education	0.327 (0.28)
Mothers' Annual Income	0.569 (0.67)
Mothers' Drinking Habit	0.423 (2.18)
Mothers' Smoking Habit	-1.95 (2.45)
Mothers' Age	0.137*** (0.051)
Constant	13.23*** (2.471)
N	144
R ²	0.262
F	3.87

*** Significant at 1% level

**Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

The occupation of father and performance is negatively related with each other. As the father's rank in occupation increases which leads to decline in performance of the students by about 0.044 in scoring marks. But Fathers' education has positive impact on performance of the student as the average level of education of father increase the performance of the students in higher secondary also increases by about 0.875. The annual income of the father has also positive impact on performance of higher secondary students if the annual income of father increases the performance of the students also increases as on an average by 0.658 in marks. Again father age

has negative impact on performance of the students. As the age of father increase by one year the performance of the students on an average decrease by 0.128. On the other hand if we see the impact of mother on performance of the students the study found that mothers' occupation has negative impact on the performance of the higher secondary students. If the mothers' are working on an average the performance of the students has been decreasing by 0.076. Again mothers' education has positive impact on performance of the students. As the mothers are educated by one year on an average the performance of the students' has been increases by 0.327. Mothers' annual income has positive impact on performance of the students. As the income of mothers' has increase on an average the performance of the students has increase by 0.569. Whereas the smoking habit of the mother has negative impact on performance of the students. As the mother smokes more on an average the performance of the students has been decline by 1.952. Again as against fathers' age the age of the mother has positive impact on the performance of the students. As the mothers' age increase by one year on an average the performance of the students in higher secondary increases by 0.137.

5.9. Performance of the Students and Family Details

In this section, the performance of the students with respect to family details of the students' of higher secondary education has been regressed separately by using the variables like number of family members, number of siblings in the family, number of school goers in the family, number of bread earner in the family, total income of the family, place of staying, Place from where they are coming. Raychauduri et al. (2010) is of the view that along with other factors distance of the educational institutions also affects the performance of the students in academic achievement.

Table 5.9. Family Details Factors Affecting Performance

Variable	Coefficient
Number of Family Members	-0.673*** (0.25)
Number of Siblings in the Family	0.238 (0.272)
Number of School Goer in the Family	0.235 (0.329)

Number of Bread Earner in the Family	0.102 (0.694)
Total Income of the Family	1.361*** (0.32)
Constant	18.692*** (1.484)
N	144
R ²	0.1767
F	4.17

*** Significant at 1% level

**Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

According to Sulemanet et al., (2012) the large family size has negative impact on the academic performance of the student. In our study also we found that larger number of family member has got negative impact on the performance of the students in higher secondary system. As the number of family member increases in family by one on an average the performance of the students declines by about 0.678. On the other the number of sibling has positive relation with performance of the students' which contradict the results found by the Sulemanet et al., (2012). Again the number of school goer in the family and performance of the students has positive relation. The number of bread earner in the family also positively related with the performance of the students. Again the total income of the family also has positive significant impact on the performance of the students. As the total income of the family increase one the performance of the students in higher secondary on an average increases by 1.

5.10. Performance and Institutional Facilities

In this section the study tries to find out impact of institutional facilities on the performance of the students in higher secondary system. Here we consider some of the institutional facilities like library facilities, computer laboratory, canteen, lavatory, common room facilities, sick room and first-aid facilities. Young (1999) is of the view that use of library facilities in the institutions has positive impact on the students' performance.

Table 5.10. Institutional Factors Affecting Performance

Variables	Coefficient
Library Facilities	-2.469 (1.642)
Computer Laboratory	8.219*** (2.673)
Canteen	-2.644*** (0.995)
Lavatory	-6.131*** (1.933)
Common Room for students	3.01*** (0.922)
Sick Room	2.752*** (0.831)
First Aid	-1.694 (0.754)
Constant	16.42 (1.551)
N	144
R ²	0.218
F	4.06

*** Significant at 1% level

** Significant at 5% level

*Significant at 10% level

Note- Standard Errors are in parenthesis

Unexpectedly, the study found that library has negative impact on the performance of the students. If a student spent more hours in library the performance of the students on an average decline by 1.984. But a study by Jato et al., (2014) was found that regular use of library by the students improves the academic achievement. Sun and Bardlay (2001) found that students perform low for those who use computer daily than that of the students who use once in a week and once in a month. But in our study we found that computer laboratory has significant positive impact on performance of the students. More the student use computer for study higher the performance is. One more hour us-e of computer laboratory by the student the performance has increases by on an average 8.549. Canteen facilities in the institutions have negative impact on the performance of the students. More use of time in eating in canteen has got declined in performance on an average by about 2.054, which contradict the finding of Umeh and Chaimaka (2015). According to them, the performances of the students are higher who eat at canteen then who self-cooked. Lavatory has negative influence on the performance of the students. As the lavatory facilities increases on an average the performance of the higher secondary

students have decreases by about 6.131. This finding has contradicted with Akomolafe and Adesua (2016) that the good Physical facilities in the institutions lead to better performance of the students. A similar study done by Juma et al., (2012) found that schools with better physical facilities perform superior advantage then the schools which have lower physical facilities. Common Room for the students has positive impact on performance of the student. Sick room in the institute has positive impact on performance of the students, better the facilities of sickroom in the institutions higher the level of performance. As the institutions having better sickroom facilities increases the performance on an average by 2.752. But the first aid facility has negative influence on performance of the higher secondary education as the better the facility of first aid poorer the performance as on an average performance decreases by 1.694.

5.11. Performance of the students and Time spent in different activities

In this section the study tries to find out the influences of time spent in different activities in performance of higher secondary institutions in Assam.

Table 5.11. Time Spent Factors Affecting Performance of the Student

Variable	Coefficient
Hours to Play Outdoor Game	-0.502 (0.306)
Hours to Play Indoor Game	-0.851*** (0.381)
Days Spent in Co-curricular Activity	0.289 (0.232)
Days take part in Voluntary Organization	-0.445 (0.498)
Hours spent in computer for study	1.148*** (0.384)
Hour spent in mobile game	-0.183 (0.285)
Hours spent in Social Networking Site	-0.076 (0.172)
Number Private Tuitions	-0.342 (0.616)
Number of Homework/Assignments	-0.124 (0.075)

Number of Examination in a year	0.522*** (0.172)
Constant	18.62 (1.212)
N	144
R ²	0.21
F	3.54

*** Significant at 1% level

** Significant at 5% level

*Significant at 10% level

Note- Standard Errors are in parenthesis

The hours spent in outdoor game by the students has negative influence on the performance of higher secondary students. As the hours spent on outdoor game increases by one hour on an average the performance of the students decrease by about 0.502. Again the hours spent in indoor game has negative impact on performance of the students. As the hours spent on indoor game increases by one hour on an average the performance of the students' decreases by about 0.851. Days spent in cultural and co-curricular activities in a week have got positive impact on the performance of higher secondary students of Assam. As the days spent in cultural and co-curricular activities in a week increases on an average the performance of the students' increases by about 0.289. The result is same with Office of Intuitional Research (2014) that engagement of students in co-curricular activities has positive impact on the performance. A similar study done by Muhammad et al., (2012) found that co-curricular activities positively affect the academic performance of the students. Days spent in voluntary organization or service scheme in a week has got negative impact on the performance of the students. The days spent in voluntary organization or service scheme increases by one day in a week the on an average the performance of the students decline by about 0.447. The hours spent in computer for study has positive impact on the performance of the students of higher secondary system in Assam. The hours spent in computer study increases by one hour, on an average the performance of the students' increases by about 1.148. Whereas the hours spent in mobile and computer game by the students has negative impact on the performance of the students. As the time spent in mobile and computer game increases by one hour on average the performance of the students' decreases by about 0.183. On the other hand if the hours spent in social networking site and performance of the students was found to

have negative relation. As the hours spent in social networking site increases by one hour on an average the performance of the students decline by about 0.077. Going for private tuitions has negative impact on the performance of the students in higher secondary education system which contradicts with the result found by Berberoglu and Tansel (2014) that Private tuition increases the academic performances of the students. On an average if the students go for private tuitions then their performance has been decrease by about 0.342. A study by Hayward (2010) found that time spent on homework likely improve the academic performance of the students but result contradict with the study that that we found that number of Homework/assignments and performance of the students are negatively related to each other. As the number of assignment increases by one on an average the performance of the students decreases by about 0.124. Whereas the number of examination held in institutions has positive impact on performance of the students. As the number of examination increases by one on an average the performance of the students increases by about 0.522.

5.12. Subject wise influence on performance of the students

In this section, the subject wise performance of the students of higher secondary education in Assam with respect to qualifications of the students and the other institutional framework facilities has been regressed. In primary survey, three subjects have been tested that are English, Political Science and Economics. The total score was thirty and ten marks containing each subject.

5.12. a. English Subject

In this section the performance of the students has been regress with respect to the English subject. Here the qualifications of the teacher and some other institutional framework have been regressed.

5.12.a) English Subject and Performance of the Student

In this section the performance of the students in English subject with respect to the English subject's teachers' qualification has been tested to see the impact of variables on the English performance in higher secondary system in Assam.

5.12.a) Teacher Details and Performance

Variable	Coefficient
D ₁ (Public Institution)	-2.063 (3.67)
D ₂ (Female)	1.22*** (0.39)
Caste	
D ₃ (General)	0.42 (0.48)
D ₄ (ST)	-0.64 (0.72)
D ₅ (OBC)	-0.89* (0.46)
Religion	
D ₆ (Hindu)	-1.16 (1.21)
D ₇ (Muslim)	0.23 (1.32)
D ₈ (Others)	-0.47 (1.57)
Place of Origin	
D ₉ (Semi Urban)	-0.64 (0.43)
D ₁₀ (Rural)	-0.16 (0.43)
D ₁₁ Tuition	0.36 (0.38)
Institutional Facilities	
Canteen	1.55 (2.47)
Lavatory	3.75*** (1.09)
Common Room	0.78 (1.28)
First Aid	-3.69* (2.20)
Family Details	
Number of Family Member	-0.13 (0.12)
Number of School Goer in the Family	0.10 (0.17)
Number of Bread Earner in the Family	-0.03 (0.41)
Total Income in the Family	-0.009 (0.32)
Socio-Economic Background	
Father's Education	0.18 (0.15)
D ₁₂ (Not Working)	0.40

	(0.68)
D ₁₃ (Govt. Employee)	-0.39 (0.42)
D ₁₄ (Pvt. Employee)	-0.08 (0.33)
D ₁₅ (Agriculture)	0.39 (0.45)
D ₁₆ (Daily Wage Earner)	-0.23 (0.62)
D ₁₇ (Pensioner)	-0.13 (0.52)
Mother's Age	0.016 (0.02)
D ₁₈ (Not Working and Housewife)	0.29 (0.68)
D ₁₉ (Govt. And Pvt. service)	0.41 (0.79)
Mother's Income	0.44 (0.38)
Time Spent in Different Activities	
Outdoor Game	0.42** (0.21)
Indoor Game	0.12 (0.20)
Cultural/Co-curricular Activities	-0.006 (0.13)
Voluntary Organization/ Service Scheme	-0.23 (0.27)
Use of Computer for Study	0.89*** (0.10)
Use of Computer for Game	0.17 (0.15)
Social Networking Site	-0.006 (0.10)
Number of Examination	-0.13 (0.26)
D ₂₀ (Staying in Home)	0.096 (0.26)
Institutional Details	
Pupil Teacher Ratio	-0.02 (0.026)
Master Degree	-0.34 (0.76)
B.Ed	0.48 (2.43)
M.Phil	0.77 (3.61)
P.hD	0.93 (0.70)
NET	-0.81 (5.82)
Permanent	-0.45** (0.19)
Experience	0.06 (0.15)
Constant	5.14** (2.29)
N	144
R ²	0.5573

F	2.41
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*** Significant at 1% level

** Significant at 5% level

*Significant at 10% level

Note- Standard Errors are in parenthesis

In English subject it is found that Private institution's students are performing better than that of Public institutions. Again it is found that lavatory facility in the institution has significant positive impact on the English subject performance. When the institution has proper institutional facilities like lavatory on an average the performances of the students has increases by about 3.75. On the other hand First-Aid has negative significant impact on the student's performance in English subject. As the First-Aid facility has increases in the institute the performances of the students in English subject on an average decreases by about 3.69. Again it is found that outdoor game has positive significant impact on the English subject performance of the students. As the hours spent in outdoor game increases by one hour the performance of the student in English subject on an average increases by about 0.42. Computer use for study has positive significant impact on the English subject performances of the students. As the use of computer for study increases by one hour the performances of the student's in English subject increases by about 0.89. It is found that performances of the student and permanent teacher of English have significant negative impact. As the number of permanent teacher in the institution have increases by one on an average the performance of the student in English decreases by about 0.42.

5.12. b. Political Science Subject

In this section the performance of the students has been regress with respect to the Political Science subject. Here the qualifications of the teacher and some other institutional framework have been regressed.

5.11.b) Political Science Subject and Performance

In this section the performance of the students in English subject with respect to the Political Science subject's teachers' qualification has been tested to see the impact of

variables on the Political Science subject performance in higher secondary system in Assam.

Table 5.12.b: Political Science and Performance

Variable	Coefficient
D ₁ (Public Institution)	-1.81** (0.91)
D ₂ (Female)	-0.36 (0.43)
Caste	
D ₃ (General)	-0.48 (0.52)
D ₄ (ST)	0.30 (0.79)
D ₅ (OBC)	-0.77 (0.51)
Religion	
D ₆ (Hindu)	-3.17** (1.29)
D ₇ (Muslim)	-2.53* (1.42)
D ₈ (Others)	-6.73*** (1.70)
Place of Origin	
D ₉ (Semi Urban)	-0.59 (0.47)
D ₁₀ (Rural)	-0.66 (0.54)
D ₁₁ Tuition	-0.10 (0.40)
Institutional Facilities	
Library Facility	1.81 (1.44)
Canteen	-1.14 (0.99)
Common Room	-0.03 (0.69)
First Aid	-0.97 (0.89)
Family Details	
Number of Family Member	-0.01 (0.11)
Number of School Goer in the Family	0.29 (0.18)
Number of Bread Earner in the Family	0.19 (0.11)
Total Income in the Family	-0.10 (0.35)
Socio-Economic Background	
Father's Education	0.42** (0.17)
D ₁₂ (Not Working)	1.38* (0.78)
D ₁₃ (Govt. Employee)	-0.81* (0.46)
D ₁₄ (Pvt. Employee)	-0.53 (0.35)

D ₁₅ (Agriculture)	0.04 (0.49)
D ₁₆ (Daily Wage Earner)	0.29 (0.67)
D ₁₇ (Pensioner)	-0.31 (0.54)
Mother's Education	0.11 (0.17)
D ₁₈ (Not Working/Housewife)	0.65 (0.73)
D ₁₉ (Govt. and Pvt. service)	1.17 (0.84)
Mother's Income	0.33 (0.40)
Time Spent in Different Activities	
Outdoor Game	-0.11 (0.22)
Indoor Game	-0.31 (0.21)
Cultural/Co-curricular Activities	0.12 (0.14)
Voluntary Organization/ Service Scheme	-0.16 (0.29)
Use of Computer for Study	0.13 (0.21)
Use of Computer for Game	-0.14 (0.17)
Social Networking Site	-0.03 (0.11)
Number of Examination	0.04 (0.07)
D ₂₀ (Place of Staying)	-0.32 (0.29)
Institutional Details	
Average Class Attended	-0.05 (0.28)
Pupil Teacher Ratio	0.02** (0.01)
B.Ed	-0.91 (0.84)
NET	-0.44 (0.52)
Permanent	0.33 (0.58)
Ad-hoc	-0.50 (0.52)
Experience	-0.06 (0.18)
Constant	6.97** (3.03)
N	144
R ²	0.5709
F	2.63

***Significant at 1% level

**Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

In the above table it is found that holding all other factor constant compared to Private institutions in Assam in the subject of Political Science Public Institutions are performing significantly worst with the coefficient value of ≈ -1.81 . Again if we observe the religion wise performances of the students in Political Science subject it is found that compared to Christian students Hindu, Muslim and Other category religion students are statistically significantly performing lower in Assam with the coefficient values of ≈ -3.17 , ≈ -2.53 and ≈ -6.73 respectively. Father's occupation has both positive and negative significant impact on the Political Science performance of the student in Assam. Nonworking category has positive significant impact on the performance of the student with the coefficient value of ≈ 1.38 and on the other hand government employee has significant negative impact on the performances of the with the coefficient value of ≈ -0.81 . It is found that father's education has significant positive impact on the performances of the student in Political Science subject. As the year of education of the father increases by one on an average the performance of the student in the subject has increases by about 0.42. Again it is found that Pupil Teacher ratio has positive significant impact on the subject. As the pupil teacher ration increases the average performances of the students in the subject increases by about 0.02.

5.12.c. Economics Subject

In this section the performance of the students has been regress with respect to the Economics subject. Here the qualifications of the teacher and some other institutional framework have been regressed.

5.12.c. i) Economics Subject and Performance

In this section the performance of the students in English subject with respect to the Economics subject's teachers' qualification has been tested to see the impact of variables on the Economics subject performance in higher secondary system in Assam.

Table 5.12.c: English Subject and Performance

Variable	Coefficient
D ₁ (Public Institution)	55.51* (31.37)
D ₂ (Gender)	0.40 (0.31)
Caste	
D ₃ (General)	-0.49 (0.38)
D ₄ (ST)	-0.82 (0.57)
D ₅ (OBC)	-1.33*** (0.36)
Religion	
D ₆ (Hindu)	1.81* (0.95)
D ₇ (Muslim)	2.15 (1.04)
D ₈ (Others)	0.73 (1.23)
Place of Origin	
D ₉ (Semi Urban)	-0.10 (0.34)
D ₁₀ (Rural)	-0.42 (0.39)
D ₁₁ Tuition	-0.17 (0.29)
Institutional Facilities	
Library Facility	10.35 (6.83)
Canteen	1.79** (0.75)
Lavatory	13.47* (8.98)
Common Room	-14.89* (7.90)
First Aid	15.22* (8.70)
Family Details	
Number of Family Member	-0.81 (8.70)
Number of School Goer in the Family	0.02 (0.14)
Number of Bread Earner in the Family	0.34 (0.32)
Total Income in the Family	0.13 (0.26)
Socio-Economic Background	
Father's Education	0.11 (0.12)
D ₁₂ (Not Working)	0.36 (0.56)
D ₁₃ (Govt. Employee)	0.14 (0.34)
D ₁₄ (Pvt. Employee)	-0.29 (0.26)
D ₁₅ (Agriculture)	-0.09

	(0.36)
D ₁₆ (Daily Wage Earner)	-0.85* (0.49)
D ₁₇ (Pensioner)	0.78* (0.42)
Mother's Education	-0.15 (0.12)
D ₁₈ (Not Working/Housewife)	0.03 (0.54)
D ₁₉ (Govt. And Pvt. service)	0.58 (0.62)
Mother's Income	-0.12 (0.30)
Time Spent in Different Activities	
Outdoor Game	0.07 (0.16)
Indoor Game	0.03 (0.16)
Cultural/Co-curricular Activities	-0.14 (0.10)
Voluntary Organization/ Service Scheme	-0.22 (0.21)
Use of Computer for Study	-0.05 (0.16)
Use of Computer for Game	0.11 (0.12)
Social Networking Site	-0.12 (0.08)
Number of Examination	0.08 (0.12)
D ₂₀ (Staying at Home)	0.19 (0.21)
Institutional Details	
Pupil Teacher Ratio	0.23* (0.14)
M.Phil	-40.28* (22.50)
Permanent	14.39* (8.23)
Ad-hoc	-14.65* (7.98)
Experience	-2.69 (1.48)
Constant	-22.57 (15.53)
N	144
R ²	0.6081
F	2.89

*** Significant at 1% level

** Significant at 5% level

*Significant at 10% level

Note: Standard Errors are in parenthesis

In the above table it has been found that compared to Private institutions in Assam Public institution in the subject of Economics is performing better with the coefficient value of ≈ 55.51 . Again it is found that compared to all other categories of caste Other Backward Cast students in Economics subject is significantly

performing worse with the coefficient value ≈ -1.33 . If we observe the religion wise performance of the students it is found that compared to all other category of religion Hindu and Muslim religion students are found to be significantly positive in the performances of Economics subject with coefficient value of ≈ 1.82 and ≈ 2.15 . It is found that canteen and performances of the students has positive significant impact on the Economics performance. As the canteen facilities in the institutions increases on an average the performance of the student in Economics subject has increases by about 1.79. Again it is found that lavatory facility has significant positive impact on the performance of Economics subject. As the lavatory facility in the institutions increases the performance of the student in Economics subject on an average increases by about 13.56. Again Common room facility in the institution is significantly negatively related with the Economics performance of the students. As the common room facility in the institution increases the average performance of the student in Economics subject decreases by about 14.89. But it is found that First-Aid facilities in the institution have significant positive impact on the performance on the subject. As the First-Aid facility in the institution has increases the average performance of the student in Economics subject has increases by about 15.22. If we see the father's occupation and performance of the students in Economics subject it is found that compared to all other category occupation Daily wage labour and Pensioner has significant impact on the performance. Daily wage labour category has statistically significant negative impact on the performance of the student in the subject with coefficient value of ≈ -0.85 and on the other that Pensioner category occupation has positive significant impact on the performance. It is found that Pupil Teacher Ratio has significant positive relation with economics performance of the student. As the teacher pupil ratio increases the average performance of the students in Economics increases by about 0.23. Again MPhil degree of the teacher has significant negative impact on the performance of the students. As the number of MPhil holder teacher increases by one the average performance of the student decreases by about 40.28. Ad-hoc teacher in the subject has significant negative impact on the performance of the students. As the number of Ad-hoc teacher in the subject increases by one the average performance of the student on an average decreases by about 14.65. On the other hand permanent teacher in the subject have positive significant impact on the performances of the student in the subject of Economics. As the number of permanent teacher of the subject has increase by one

on an average the performance of the student in Economics Subject has increase by about 14.39.

5.13. Conclusion

In this chapter the results of the primary survey has been analysed. Different variables have been used to know the factors which affect the performance of the students in higher secondary education in Assam with different dimensions. Here we try to find out the influence of different variables with the help of Ordinary Least Square method. The study was divided into various parts such as Socio-economic background of the students, Family details, Institutional details, Time spent in different activities, Subject wise impact to analyse the different effects of variables on the dependent variable. When we regress the dependent variable that is our test score, the study found that Private institutions are performing better compared to private institutions. Again in Caste-wise analysis, the Other Backward Caste student has got negative impact. In the case of religion, students belongs to other religious category student has significant performance. Sickroom, Father's education and Computer use in study has significant positive impact on performance. Number of family member has negative significant impact on performance. Among occupation of father also Private employee has negative significant impact. The factors which are affecting Public institution's performance are Number of family member, Father's age, Father's age, Mother's Education and Social Networking site. On the other hand the factors which are influencing Private institution's performance are Father's education, Mother's age, Social networking site and Average class attended. In the case of socio-economic factors, the components that impacted the performance of the students are: Education of both father and mother, annual income of both father and mother, drinking habit of father and mother, smoking habit of father, mothers' age. As of the socio-economic dimension, the variables which impacted the performance of the students in higher secondary are: Occupation of both father and mother, Age of father, Smoking Habit of mother. In family details the variables which are positively related to the performance of the students are Number of Sibling, Number school goer in the family, Number of bread earner in the family, total income in the family and the variables which are negatively related

are Number of family member of the family, Place of staying, Placer of origin of the students. In institutional facilities the positively related variables are computer laboratory, common room for students and Sick room. The institutional factors which are negatively related are Library facilities, Canteen, lavatory, First Aid. In higher secondary institutions students spent time in different types of activities. The activities which are positively influences the performance of the students are Co-curricular Activities, Hours spent in computer for study, Number of examination and the activities which are negatively influences the performances of the students are Hours spent in indoor and outdoor game, Voluntary or Service Scheme, Mobile or Computer game, Time spent in social networking site, Number of private tuitions and Number of assignment or Homework. In the subject wise performance we tested three subjects English, Political Science and Economics. In English subject has been tested and the variables which are positively related to the performance of the students are Gender, lavatory and use of computer for study. Here in gender we found that female are performing better and variables which are negatively related with performance are First-Aid, Permanent teacher and in caste Other Backward caste students are performing worse than the all other category students. In Political Science subject also the factors which have positive impact are father's education, Pupil Teacher Ratio and in occupation of father Non-working category has positive impact on performance and factors which are negatively related are Type of institution that is private institutions are performing better. Again compared to Christian category students all other category of students are performing worse and In father's occupation Government Employee category has negative impact on performance. In the Economics subject's score the variables which are positively related are Canteen, Lavatory, Pupil Teacher Ratio, Permanent Teacher and here it is found that Public institutions are performing better than that of Private institutions, among religion category Hindu students are significantly performing well and among the father's occupation category Pensioners category has significant positive impact on performance. The variables which are negatively related are Common Room facilities, MPhil of the teacher, Ad-hoc Teacher and Experience. It is found that among the caste categories Other Backward caste students are performing worse and father's occupation category Daily wage earner has negative impact on the performance of the students.

CHAPTER VI

SUMMARY AND CONCLUSION

6.1. Introduction

This chapter summarises the discussion made above, presented the findings of the study briefly and draws conclusion. At the end, some probable suggestions have also been made for the policy implication.

6.1. a: Summary of the Study

As discussed above, the study has made an attempt to analyse about the situation of higher secondary education in Assam. In first chapter, the study tried to give a brief knowledge about the education system in Assam as well as India. A brief history of education in India and educational policies in India has been discussed. How the secondary education got developed over the year both in India and Assam has been discussed. Accordingly, the growth and trend of higher secondary education system was discussed. In the 1990s, the growth of private higher secondary education system was also analysed, especially the emergence of junior college in Assam. Thereafter, when the two systems of higher secondary education— public and private, started competing each other, the issue of quality comes into the picture. This is the core of this research.

Based on the primary data analysis, it is found that the private higher secondary system performs better than that of the public system in Assam. To substantiate the study, the mean score value of the private system, which is considered as proxy of performance level, has been 68.70 compared to that of the public's mean score value of 54.40. Again the t-test result also shows statistically significant differences between two systems of institutions. If we observe the three subjects that have been taken for the study— English, Economics and political Science, the mean test score of the students of the private system is turned out to be 78.33 compared to the 66.53

of public institutions. In the case of Economics subject, the mean test score of the students of private secondary system is estimated at 63.47 compared to 49.17 of public system. As of the Political Science, the mean test score of private is also turned out to be 64.58 compared to 47.36 of public system. This finding is also supported by the regression result that the English and Political Science are found to be performing well in the private system, while it is not so in the case of economics subject. Nevertheless, in totality, the overall result is in favour of private higher secondary education system in Assam.

When we analyse the reason behind the rapid growth of student enrolment in the private system of higher secondary education in Assam, the factors of performance of the system, easy accessibility and student friendly are found to be the major factors to attract students in private sector. Further, the study explored inter-institutional variation within both public and private systems. Of total five systems of institutions offering higher secondary level of education, Junior College model/system performs the best, followed by the private college system. The Government/Provincialised Colleges system turns out to be the lowest performing system in Assam. If we arrange them rank wise, the Junior College is in the first position followed by the “Other type of Institutions” (private college system). In the third and fourth position, the Private Higher Secondary School system and the Government Higher Secondary School system respectively come in sequentially. The fifth position is registered by the Government/Provincialised system of education. The same result has also been supported by the regression analysis.

If we explore further institution-wise focus, using regression analysis we can realise that the private college excels in English subject, followed by the Junior College. In the third and fourth position, Private Higher Secondary system and Govt/Provincialised Colleges come in; The Government Higher Secondary system performs the least in English subject. As of the Economics subject, Junior college performs the best, followed by private college and Private Higher Secondary School in the second and third position respectively. Unfortunately, the Government Higher Secondary School and Government/Provincialised College come in the fourth and fifth position respectively. As of the Political Science, the study found that Private Higher Secondary Schools performs the best compared to other four types of institutions. It is followed by the Private Colleges/Group of Institutions and the

Junior College in the second and third positions respectively. Unfortunately, the Government Higher Secondary School and Government/Provincialised College turn out to be the fourth and fifth positions respectively. This result is supported by regression analysis as well that the students of Private Higher Secondary education system in Assam performs the best compared to public institution.

In the study, when we intent investigate further which factor(s) influenced the performance most. From the primary survey result and statistical analysis, for the convenient of understanding, we broadly categorise the factors/variables which affect the performance of the students in higher secondary education in Assam into seven categories. They are: i)all factors as whole, ii) public vs. private, iii) socio-economic background of the students, iv) family details of the students, v) institutional facilities, vi) time spent in different activities and vii) subject-wise performance of the students. Again the subject-wise performances are sub-divided into three that are English, Political Science and Economics.

In the first section taking all variables as whole the study found that the variables like, father's education, use of computer for study and sickroom facility in the institution impacted the students' performance positively. The factors which affected the performance of students negatively are: the number of family member and father who works in private firms. In the second section, a comparative analysis of the public and private institutions is made. In the public institutions, the factors which positively affecting the performances are: number of family member and social networking site, and the factors which are negatively influencing the student performance in public institution are: the father's age, father's education and mother's education. As against public institutions, in private institutions, the factors which are positively influencing student's performance are: the father's education, mother's age and class attendance, and the factor that negatively impacting the student's performance in private institution is the social networking site. In the third section the study, it tries to find out the socio-economic factors, which influence the students' higher secondary performance in Assam. The factors found to be statistically significant are: the fathers' level of education, fathers' age and mothers' age. To understand the direction of the variable, the fathers' education level has got statistically significant positive impact on the performance of the students', fathers'

age has got negative but statistical significant impact on the performances, while the mothers' age has got positive impact on the performance in higher secondary education system in Assam. In the fourth section, the study found that the number of family member has negative impact in the performance of the student and family income has got significant and positive impact on the higher secondary education performance in Assam.

In the fifth section the study tries to analyse institutional facilities factors which are influencing the performance of student in the higher secondary level of education in Assam. Of the institutional factors, the computer laboratory, canteen facilities, lavatory facilities, common room for the students, sick room and first aid were found to be impacted on the students' performance. When we explore further in to the direction of the factors on the students' performance, the computer laboratory has significant positive impact on the performance of the students, canteen facilities has significant negative impact on performance, lavatory has significant negative influence, common room facilities for students' has positive significant impact on the performance, again sick room has positive significant impact on the performance of the students and first aid facilities in the institutions has significant negative impact on the students' in higher secondary performances in Assam. In the sixth section, the study explored on the impact of time spent in different activities by the students. The study found that the number of hours spent in indoor game, number of hours spent in computer for study and number of examination given by the students in a year have impact upon the performance of the students. Number of hours spent in indoor game has significant negative influence on the performance, while hours spent in computer for study is influencing the performances of the students positively and significantly and number of examination appeared by the students in an year has significant positive impact on the performance on higher secondary education system in Assam. Finally, the variables of the factors have been divided into three sub-sections: English, Political Science and Economics. In English subject, the factors that have influenced the performance positively are the use of computer for study and lavatory facilities, while the factors which are negatively influencing the performance of the students are the first-aid facilities and permanent teacher. In the case of political science subject, the factors which are positively influencing are the performance/mark of the students is the father's education, father

who are not working and pupil-teacher ratio. On the other hand, the lone factor which was negatively influencing the students' test score/performance is the father's occupation who is working in government sector. In Economics subject also, the variables which have positively impacted on the subjects test score by the students are the canteen and lavatory facility, pupil-teacher ratio, permanent teacher in the institute and pensioner father. On the other hand, the factors which are negatively influencing are the common room facilities, MPhil degree of the teacher, ad-hoc teacher and experience of the teacher and father who are daily wage worker.

6.2. Limitations of the study

The study is concentrated on the higher secondary education level and the institutions offering this level of education in the urban areas of Assam. The area of the study is limited to only three districts of Assam that are Jorhat, Cachar and Bongaigaon. Given the limited period of the course, other districts of the state have not been included in the present study.

6.3. Scope for Improvement/Recommendations

The recommendations of the study are as follows

- Government should invest more on public institutions as many people cannot effort the high fee structure of private institutions.
- Proper training facilities should be provided to the teacher to improve the quality of the students.
- Government should improve better in-fractural facilities in the public institutions.
- Higher Secondary Education Section should be separated from the school and colleges so that students should get proper care and attention.

6.4. Further Research Scope

During the primary survey of the study explored the importance of the other areas which are not covered by the study and this might be fulfilled in the future study. This might be understood and suggested as follows:

- The low expenditure on Higher Secondary Education in Assam compared to other North-eastern states.
- The return of investment on higher Secondary education of the students in Assam.
- The remedial measures should be taken to improve institutional facilities which are related to low performance of Public Higher Secondary system in Assam.

6.5. Conclusion

The study found that private institutions are performing better for the students than that of the public counterpart in the higher secondary education level in Assam. There are ample scopes to improve the public institutions if some necessary steps would be taken by the government. As the study found that Junior Colleges are performing better because the system is dedicated for this level of education, i.e. only class XI and XII standards. It may probably be the reason that the students get proper attention and the teachers also focussed on the specific section. Socio-economic, infrastructural facilities, family details are affecting the performances of the students; therefore proper attentions should be given in these factors.

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APPENDIX

Questionnaire I

Sikkim University

(A Central University of India)

Gangtok-737102

(The information sought through this questionnaire is purely for the purpose of M.Phil dissertation)

Name of the Institution- Personal Details

1. Name:
2. Age:
3. Sex: (1-Male, 2-Female, 3-Others)
4. Caste: (1-General 2-SC 3-ST 4-OBC)
5. Religion: (1-Hindu, 2-Muslim, 3-Christian, 4-Sikh, 5-Buddhist, 6- Others)
6. Smoking/ Drinking Habit: (1-Yes, 2-No, 3- Occasionally)
7. Place of origin: (1-Urban, 2-Semi Urban, 3-Rural)
8. No. Of family member:
9. No. Of siblings:
10. No. Of school/College goers in the family:

11. a) Family Details (Excluding below 5 years)

Relationship to self	Sex	Age	Occupation	Education level	Annual income	Drinking (Alcohol)Yes/No	Smoking habit Yes/No

12. b) Where do you stay-

(1-With family, 2-Hostel, 3-With relatives, 4-Rented house alone, 5-Rented house with friends)

13. a) How many hours do you play in a day?(Outdoor)-
b) How many hours do you play in a day? (Indoor)-
14. How many days do you spend in cultural/ co-curricular activities in a week?-
(1-Dancing, 2-Singing, 3-Drawing/Sketching, 4-Play/Drama, 5-Others)
15. How many days do you take part in voluntary organization or service scheme in a week (NSS/NCC/Bharat Scouts and Guide/Swacha Bharat Abhiyan)?-
16. How many hours do you use computer for study in a day?-
17. How many hours do you spent in using Computer/mobile game in a day?-
18. How many hours do you spent in social networking (facebook, Whatsapp) site in a day -
19. How many classes do you attend in week?
a. English- b. Economics c. Political Science
20. Do you go for private tuitions of these three subjects (Eco/Eng/Pol)?
(1-Yes, 2-No)
21. How many assignment or homework do you get in a week?
22. No. of examination other than final exam in a year in class XI (Eco/Eng/Pol)-
23. What influences you to join this institution? (Give no. preference wise)

Sl. No.	Reasons	Preferences
1	Suggested by siblings/Cousin	
2	Less fee	
3	Good infrastructure	
4	Education quality is good	
5	Near to your place	
6	Regular classes	
7	Seat easily available	

Questionnaire II

Sikkim University
(A Central University of India)
Gangtok-737102

*(The information sought through this questionnaire is purely for the purpose of
M.Phil dissertation)*

30 minutes

English part

1. Use appropriate article
 - i. The train is _____ hour late today. (a/an/the)
 - ii. Which is _____ longest river in India? (a/an/the)
2. I (go) to the museum last Monday. (Correct tense)-
3. Fill in blank with given conjunctions-
_____ more and more is learned about the biochemical changes that go on in the body _____ it grows older; scientists may someday be able to modify those changes to ensure better health for the aged. (Now that, as)
4. Use appropriate Adjective/Adverb
Children grow _____ (quick/quickly/quicker)
5. **Complete the following sentences using much or many**
 - i. How _____ money have you got?
 - ii. How _____ dollars have you got?
6. Complete the following sentences using appropriate prepositions
 - i. He was born _____ a small village. (the/in)
 - ii. His illness has taken a turn _____ the worse. (for/from)

Economics part

1. Statistics solves economic problems. (True/ False)-
2. Range is the-
 - i. Difference between the largest and the smallest observation.
 - ii. Difference between the smallest and the largest observation.
 - iii. Average of the largest and the smallest observation.
 - iv. Ratio of the largest and the smallest observation.

3. Bar diagram is-
 - i. One dimensional diagram.
 - ii. Two dimensional diagrams.
 - iii. Diagram with no dimension.
 - iv. None of the above.
4. The arithmetic mean of -1, 0 and 1 is _____.
5. Who is the father of economics?
 - i. Alfred Marshal ii. Adam Smith iii. Lionel Robinson iv. John Stuart Mill
6. Which of the following are the basic ways of collecting data? Tick the following
 - i. Personal Interview
 - ii. Mailing Survey (Questionnaire)
 - iii. Telephone Interview
7. When was National Rural Health Mission (NRHM) introduced?
 - i. In the financial year 2005-06
 - ii. In the financial year 2006-07
 - iii. In the financial year 2007-08
 - iv. In the financial year 2008-09
8. Who defined Economics as “Study of man in ordinary business of life”?
 - i. Alfred Marshal ii. Karl Pearson iii. Robinson iv. Fredrison
9. Which sector has the lowest contribution in gross domestic product (GDP) in India?
 - i. Tertiary Sector ii. Secondary Sector iii. Primary Sector iv. None
10. Which two types of industries are included in production industry?
 - i. Authorised and unauthorised
 - ii. Registered and unregistered
 - iii. Scheduled and unscheduled
 - iv. Primary and Secondary

Political Science part-

1. Is there provision of dual citizenship in Indian constitution? **Yes/No**
2. “Political science begins and ends with the state”. Said by **Laski/Garner**.
3. Indian constitution is dynamic. **Yes/No**.

4. Who wrote the book “On Liberty”? (**Daniel J. Elazar /John Stuart Mill/ Jack Layton**)
5. Who wrote the book “A theory of justice”? (**John Rawls/Gary Jacobson /Dennis Kavanagh**)
6. Who appoints the Chief justice of the supreme court of India?
 - i. Prime Minister
 - ii. President
 - iii. Senior justice of supreme court
 - iv. Member of parliament
7. What is the full form of UNDP?
 - i. United Nations Development Programme
 - ii. Union Nations Development Programme
 - iii. United National Development Programme
 - iv. Union National Development Programme
8. Which part of the constitution deal the fundamental rights?
 - i. Part I
 - ii. Part II
 - iii. Part III
 - iv. Part IV
9. Which article of the Indian constitution deals with the amendment procedure? i. Article 365 ii. Article 366 iii. Article 367 iv. Article 368
10. Which part of the constitution deal the Directive Principle of State Policy?
 - i. Part I
 - ii. Part II
 - iii. Part III
 - iv. Part IV

Questionnaire III

Sikkim University
(A Central University of India)
Gangtok-737102

*(The information sought through this questionnaire is purely for the purpose of
M.Phil dissertation)*

Institutional Questionnaire

1. Name of the Institution-

Students and teachers details-

2. No. Of subjects provided by the higher secondary institution (Eng/Eco/Pol)? –

Subject	No. of student XII	No. Of Teachers	Qualification					Permanent	Ad-hoc	Refresher / Orientation Course attended	Experience (In years)	Age	Sex	Marital Status
			MA	B.Ed	M.Ed	MPhil	PhD							
English														
1														
2														
3														
4														
Pol. Sc														
1														
2														
3														
4														
Econ														
1														
2														
3														
4														

3. How many in-house training programmes for the teachers have been conducted last year?-

Student Teacher Related Questions

4. Does the institution organise any kind of guardian-teacher meeting?

1-Never 2-Monthly 3-Quarterly 4-Half Yearly 5-Annually

5. Does the institution organise any common meeting for enhancing student-teacher relation?

1-Never 2-Monthly 3-Quarterly 4-Half Yearly 5-Annually

Institutional Details: Tick the appropriate

6. Does the institution have the following?
- i. Library Facility
 - ii. Computer Laboratory
 - iii. Drinking Water
 - iv. Canteen
 - v. Lavatory 1-Yes 2-No
 - vi. Separate for boys and girls
 - vii. Common Room 1-Yes 2-No
 - viii. Separate Common Room
 - ix. Sick Room
 - x. First Aid Facility