CHAPTER II

Significance of the Problem, Review of Literature and Methodology of the Study
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2.1 SIGNIFICANCE OF THE PROBLEM

Kanyakumari district, one of the smallest districts of the state of Tamil Nadu, has the unique distinction of being the district with the highest literacy rate. As per 2001 census provisional table, the male literacy rate was 90.88 and female literacy rate was 85.38.

Located at the land’s end of India, this district is an ideal sample for any study on ‘Human Capital’. The district projects a situation wherein stagnation in employment and explosion of education exist side by side. Evidently there seems to exist an imbalance between accumulation and utilization of Human Capital.

Regarding the pattern of utilization of the available manpower, the district reveals a pronounced failure to absorb its human capital. Consequently, the scourge of unemployment has tightened its tentacles on the educated. Unemployment has corroded the economic, social and moral fabric of society.

Failure of utilization of the human capital of educated individuals, despite repeated and continuous efforts, causes frustration and discontentment in them. After successfully surmounting the multiple obstacles strewn over the educational track, the educated find, much to their dismay, that their degrees do not enable them to a sinecure for life. This saps their self-confidence, self-respect, courage and dignity, and a sense of uselessness grips them.

The unutilised Human Capital who form the most vocal section of society, is the greatest single factor in breeding social unrest and armed insurrection. Revolutionary philosophy find fertile soil in the minds of those whose human capital is not utilized
Non-utilisation of human capital is a poison, that pollutes family and society. The non-utilisation of human capital results in a huge waste of economic resources, which had been invested in education by the Government. As an individual, being unemployed, lowers a person’s standard of living.

Women constitute nearly 50 per cent of the population. If the human capital of this, fifty per cent of the population is not used, no real development can take place.

If the knowledgeable, skilled and physically fit youth of Kanyakumari district are not employed, fatalistic attitudes which are likely to cause unrest, will have far reaching repercussions not only in Kanyakumari district, but in the neighbouring districts too. Hence the appalling problem of not utilizing the Human Capital of the district, must be tackled on a war footing. The study on utilization of Human Capital will suggest measures to overcome this problem of educated unemployed.

2.2 REVIEW OF LITERATURE

Several theoretical and empirical studies have been made by researchers and social scientists to focus attention on the concept of Human Capital. A review of literature reveals that there has been a burgeoning of literature on the topic since 1990’s. The literature covers a plethora of aspects related to Human Capital such as concepts and measures of human capital, relations between education and income distribution, effects of education on productivity, concept of human development, measurement of human development and human resources and socio-economic development.

2.2.1 Views on the Concept of Human Capital.

Schultz (1961)\(^1\) in ‘Investment in Human Capital’ states that by investing in themselves, people can enlarge the range of choice available to them. To him, values and

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beliefs inhibit us from looking upon human beings as capital goods. To Schultz activities that improve human capabilities are (i) providing health facilities which improve life expectancy, strength and stamina, and the vigour and vitality of a people; (ii) on-the-job training organized by firms; (iii) formally organized education at the elementary, secondary and higher levels; (iv) study programs for adults (v) migration of individuals and families to adjust to changing job opportunities. To him, except for education, not much is known about these activities that are germane here.

To Schultz it is not difficult to estimate the conventional costs of education but it is far more difficult to estimate another component of total cost, the income forgone by students.

His preliminary estimates suggest that the stock of education in the labour force of United States, rose about eight and a half times between 1900 and 1956, whereas the stock of reproducible capital rose four and a half times. To him, both the magnitude and the rate of increase of this form of human capital could be an important key to the riddle of economic growth.

He further stated, tax laws everywhere discriminate against human capital. Human capital deteriorates when it is idle because unemployment impairs the skills that workers have acquired. There are many hindrances to the free choice of professions. He stresses that there are imperfections in the capital market in providing funds for investment in human beings than for investment in physical goods. Internal migration, notably the movement of farm people into industry, requires substantial investments.

Kiker (1966)\(^2\) in his study on 'The Historical Roots of the concept of Human Capital' carefully reviews the concept and role of human capital formation in the history

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of economic thought. To him, economists and non-economists like Sir William Petty, William Farr, Engel, Adam Smith, Mill, Marshall, just to name a few, considered human beings or their skills as capital. This piece of literature traces the development of human capital and the efforts taken to quantify human capital.

Human Capital concept was useful to demonstrate the economic profitability of human migration, to demonstrate the power of a nation to propose new tax schemes, to determine the total cost of war, to emphasise the economic significance of human life and to make decision in cases dealing with compensation for personal injury and death.

Coleman (1997)3 in his essay 'Social capital in the creation of Human Capital' states that social capital is an important tool to help in the formation of Human Capital. To him, just as physical capital is formed by changes in materials to form tools that help in production, human capital is formed by changes in people's skills and capabilities that enable them to act in new ways. Physical capital, the writer states, is tangible and available in observable material form, human capital is less tangible as it is the form of skills and knowledge acquired by an individual, social capital is less tangible for it exists in the relations among persons. All social relations and social structures provide some forms of social capital. To him, social capital has an important effect on creation of human capital in the next generation.

Woodhall (1997)4 in her article 'Human Capital Concepts' refers to the fact that human beings invest in themselves by means of education, training or other activities which raises their future income by increasing their lifetime earnings. To her, the concept of human capital, has had a powerful influence on the analysis of labour markets, wage

4. Ibid., pp.219-223.
determination, economic growth, expenditure on health care and the study of migration. To her, investment in human capital is a controversial issue. The measurement of the rate of return to investment in education has been criticized. To critics, education acts as a 'screening device', which enables employers to identify individuals with higher innate ability or personal characteristics such as attitudes towards authority, punctuality, motivation which employers value, which are therefore rewarded by means of higher earnings. To her Human Capital increases productivity because the educational process not only provides knowledge and skills but also helps to shape the abilities, aptitudes and attitudes of the educated.

2.2.2 Scope and Relevance of Human Capital

To Becker (1964) in 'Human Capital: A theoretical and empirical analysis, with special reference to Education', activities that influence future monetary and psychic income by increasing resources in people are called investments in human capital. To him, schooling, on-the-job training, medical care, migration and searching for information about prices and incomes are investments in human capital. Investments in human capital improves skills, knowledge or health and thereby raise money or psychic incomes. To him, the more highly educated and skilled people always tend to earn more than others. Unemployment tends to be inversely related to education. He analyses the relation between earnings and college education taking into consideration college costs and greater ability of college persons.

According to Joshi and Rao (1965), literacy and education are important components of human capital. Economic and non-economic factors impede utilization of

human capital. Their study of changes in literacy and education in selected villages of Uttar Pradesh and Punjab confirms that in the field of rural education, creation of educational opportunities has not been followed up by their effective utilization. Concentration of literacy and education among the upper and dominant intermediate castes are changing. Important variations are discernible in the proportion of literates between males and females. Human capital formation depends on the pace of educational progress especially in the rural areas.

To Schultz (1971)\textsuperscript{7} in 'Investment in Human Capital' economic thinking has neglected two classes of investment that are of critical importance. They are investment in man and in research, both private and public. To him, most of the investment has been on schooling and there has been less investment in research. According to him the productive capacity of human beings is larger than all other forms of wealth taken together.

To Jakubauskas and Palomba (1973)\textsuperscript{8} in their work 'Manpower Economics', manpower is a form of capital that is, human capital'. Just as an economy can achieve a higher level of gross national product by technological advances which improve physical capital, an economy can improve its human capital and increase Gross National product. People can increase their capabilities as producers by investing in themselves.

Human capital can be improved by various investments. These investments include formal education, on-the-job training, fuller job-market information and better health care. Unemployment can be viewed as idle capital, skill training can be viewed as improving capital and better job market information can be viewed as moving capital into


a more productive position. Benefits of investing in human capital cannot easily be measured but this cannot stop economists from estimating best investments for employing idle human capital and constantly upgrading human capital.

Schultz (1981)⁹ in his work 'Investing in people' states human capital contributes to labour productivity and to entrepreneurial ability, valuable infarm and non-farm production, to household production, in the time and other resources that students allocate to their education and in migration to better job opportunities and better location in which to live.

To him human capital theory treats everyone's state of health as a stock that is health capital and its contribution as health services. Part of the quality of the initial stock is inherited and part is acquired. The stock depreciates over time and at an increasing rate in later life. Gross investment in human capital entails acquisition and maintenance costs including child care, nutrition, clothing, housing, medical services and care of oneself. The service that health capital renders consists of healthy time or sickness free time which contributes to work, consumption and leisure activities. To him, improvement in health is revealed by the longer life span of people. Longer life span provides additional incentives to acquire more education, on investments in future earnings. More on-the-job training becomes worthwhile.

Education also accounts for much of the improvement in population quality. Schooling has 'Vintage effect'. Older people continue through life with very little or no schooling, whereas the children on entering adulthood are the beneficiaries of schooling. To him, entrepreneurial ability is definitely increased by additional schooling.

Education is deemed to be one of the major instruments in achieving social reforms. To him, a wide array of human skills are essential in fueling the dynamics of development.

Ashok Mathur (1990)\(^{10}\) in his article “Human Capital, Spatial Disparities and Economic Development in India” points out that physical capital by itself cannot act as an agent in the process of development, unless it is complemented by simultaneous expansion in the stock of human capital. To him, labour in which resources have been invested to provide it education and skills, comprises the human capital stock of a national economy.

Using district level data for 1971, he studies the structure of human capital in India, regional disparities in the stock of human capital and the relationship of human capital stocks to economic development. His study revealed considerable imbalance in the urban human capital structure of states.

The co-efficient of variation is low for most components of the human capital stock in Kerala, Harayana, Punjab and Bihar. In other states, inter district variability differs too much among different components of human capital stocks.

The inter-district disparity is much greater for female human capital stocks per capita than for male human capital stocks per capita.

He reports that even those members of population who acquire education, but do not actively participate in formal economic activity do play a role in contributing to raising the levels of development. The external benefits of education emerge to be the highest for primary and middle level education.

To him, human capital variables play a greater role in explaining urban industrial development than in explaining agricultural development. He further states, that the role of graduate level human capital is stronger in urban segment, whereas in rural segment, the role of school level human capital is relatively more prominent.

He finds inter-district disparity in terms of technical diploma level of human capital far more than even those with post-graduate level degrees. Human capital with non-technical education is poorly related to development, while that with technical education has much stronger relationship to development. He further states, that in the rural sector, school level education has to be given greater emphasis than higher level education.

Tilak (1999)\(^\text{11}\) in his article, “Investment in Human Capital in India – An Inter-state Analysis of Stock and Flow of Human Capital”, focuses on the level of schooling of the population and the rate of enrolment/attendance in schools. The stock of human capital is estimated in terms of an index of education with the help of literacy and mean years of schooling population in 1981 and 1991/1992-93. This facilitates temporal comparison in the performance of state. To him, non-enrolment in and drop-out of children from school are due to household poverty and low State Domestic Product per capita. Supply side factors like provision of adequate teachers, provision of access to upper primary school and provision of adequate levels of schools have been found to be very important.

2.2.3 Education and Human Capital

To Weisbrod (1962)\(^\text{12}\) in his article ‘Education and Investment in Human Capital’, economic progress involves not only changes in machinery but also in men--not only

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expenditures on equipment but also on people. Improvements in health make investment in education more rewarding by extending life expectancy. Investment in education expands and extends knowledge, which raises productivity and improves health. To him health, learning (both in school and on the job) and location are forms of direct investment in the productivity and well-being of people.

To him, some of the benefits of education are realized, at the time, the education is being received (that is, in the ‘short’ run); others, after the formal education has been completed (that is, in the long run). Benefits to mothers, in terms of the child care role of schools and benefits to neighbours, in keeping children ‘off the streets’ are realized while the education is being obtained. Any benefits associated with subsequent employment of the student as well as benefits to the student’s future children are realized later. To him the process of migration is a process of spatial shifting of source of the external effects of education.

Panchamukhi (1965) estimates resources that are entering into all types of education in India. He calls them costs of education. He focuses his attention only on the costs of formal education. He has constructed a wage chart for different type of education.

He makes a comparison of the domestic physical investments with formal educational investments for India. To him, the physical investments in India have been increasing on a higher average rate of 13.4 per cent per year as compared to the educational investments which are increasing at the rate of 9.5 per cent per year. A comparison of the yearly rates of growth of these types of investments in India shows that the physical investments grow at an uneven rate. The educational investments, on the

other hand move very steadily (between 7.3 per cent and 11.2 per cent) with little deviation in between.

To him, India is investing nearly five to six per cent of its National Income on education against 11.8 per cent and 12.9 per cent of GNP in the U.S. for 1956 and 1958, which is nearly double the proportion of India in the same reference period.

Blaug (1967)\textsuperscript{14} in ‘Approaches to Educational Planning’, talks of Educational Planning with the purpose of promoting economic objectives. It is now as universally approved as economic planning itself. To him social demand projections, man-power forecasting and rate of return analysis are reconcilable and in fact complementary techniques of educational planning. They must be combined with specific educational reforms and an active man-power policy designed to minimize the burden of administration planning. To him, variations in earnings is related to variations in the cost of education. By making rate of return analysis, on a year to year basis, a continual check on labour markets for highly qualified manpower is kept and gradually insights are developed into the ways in which education interacts with growth.

Nallagoundan’s (1967)\textsuperscript{15} article, ‘Investment in Education in India’, was based on the data obtained by a sample survey conducted by the Education Commission (1966). To him, the education system is weak at the bottom and heavy at the top. This is a common feature of the education system in the country. Natural abilities certainly explain part of the extra earnings of more highly educated persons. Nallagoundan recognized the importance of this factor, but did not make any adjustment for it. Nallagoundan estimated both social and private rates of return. The social rates of return obtained were 17 per


cent for primary education, 12 per cent for middle level, 10 per cent for matriculation, seven per cent for degree and 10 per cent for engineering education. He found that investment in education in India was not productive as it was in the modern industrial sector. Therefore he argued for reallocation of resources in favour of physical capital, as according to him, more investment in education may not contribute to economic growth.

Harrison (1972)\textsuperscript{16} in his article "Education and Underemployment in the Urban Ghetto", points out that difference in quality of education brings variations in educational returns. The basic assumption of the theory of human capital that education and productivity are positively correlated has not been tested in his study. To him, difference in pay between a (well educated) Black professional and less educated Blacks may depend on the relative scarcity of educated Blacks. To him, Human Capital improves the relative position of both races.

Fields (1974)\textsuperscript{17} in his article 'The Private Demand for Education in relation to Labour market conditions in less developed countries', makes it clear that persistent high demand for education despite open unemployment and employment at a lower skill level of substantial numbers of educated persons are due to three possible explanations. One possibility is that the demand for education may be relatively inelastic with respect to private returns. This may be because education is demanded primarily for the consumption or non-pecuniary investment benefits it confers and not for those financial returns which are measured by present values. Alternatively, it may be because, the present value is already so large, that education is obviously a sound personal financial investment and virtually everyone wants it. Another explanation, for the persistence of a high demand for


education, is that, the present value of investing in education, may be relatively inelastic, with respect to the supply of educated workers.

Goel (1975)\(^{18}\) in his book "Education and Economic Growth in India" states that education affects economic development both directly and indirectly; directly through productivity, employment, composition of the labour force, division and mobility of labour, and, indirectly through savings, limitation of the size of the family and by inculcating the right kinds of attitudes and skills and by removing some of the obstacles to social change and progress.

Goel points out that evidence in India proves that better educated persons receive higher personal earnings. A study by the National Institute of Community Development in 1967 demonstrates that (there exists a relationship between education and economic development and that) male literacy was one of the five important factors related to agricultural innovation and an important factor in health innovation. He highlights the finding of another study where a high yield variety farmer, who could be made literate, produced additional crops. To him, a good and relevant system of education will always yield positive returns to the individual in the form of higher wages and to the society by way of greater productivity so long as it is expanding in response to the felt needs and requirements of the economy and the state of technology.

Psacharaopoulos and Woodhall (1985)\(^{19}\) in their book 'Education for Development' state that education is both consumption and investment. On the one hand, it is valued for its immediate benefits, but, on the other, it helps to create income in the future by providing educated workers with skills and knowledge that enable them to increase their productive capacities and thus receive higher earnings.

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To them the concept that investment in human capital promotes economic growth dates back to the time of Adam Smith. The contribution of education to growth is even stronger if the complementarities between education and other forms of investment are taken into account. Measurement of contribution of education to economic growth can be done by growth accounting approach as used by Dennison or by rate of return to human capital as adopted by Schultz.

To them education makes both a direct and indirect contribution to economic growth. In developing countries average rate of return to human capital is higher than the rate of return to physical capital, whereas in more developed countries the reverse is true.

Informal education and on-the-job training have been ignored by Schultz and Dennison, and they concentrated only on formal education.

Tapas Majumdar (1988) states in his article, 'Investment in literacy for a high-technology society', that literacy and modernization are conceptually interrelated. Universal literacy and scientific modernization of society are two movements occupying the center stage in South Asian economies. For economies endowed with human capital, there is hope of ushering an era of high technology.

To him, learning as an activity implies the learner's own investment in time and effort. There has to be a minimum cost of time and effort for buying a given quantum of education.

Further, he states, Human Capital, once acquired, cannot be transferred the same way as other capital or inventory. Transfer of human capital exhibits another peculiarity that almost violates the conservation law of economics and sets human capital apart from

every other form of capital, its transfer does not deplete the original stock. Moreover, most kinds of educational activity are sequential—literacy being the first step in a sequence.

Dreze and Loh (1995)\textsuperscript{21} in their paper ‘Literacy in India and China’ reveal that the census data of both countries indicate that China is well ahead of India in the field of basic education.

China’s lead was achieved during the pre-reform period and the speed of education expansion after liberation has been quite remarkable. China has been more successful than India in reducing disparities of educational achievements among different social groups. Female literacy rates are well below male literacy rates in both countries. The gender bias is more striking in India. There are wide interregional disparities in literacy rates in both countries.

This study highlight, a need for a radical public policy in India, to concentrate on the development of widespread equitable basic education.

Tilak (1997)\textsuperscript{22} in his article ‘Human Capital for Development and Development of Human Capital in India’ says that human capital is an engine of economic growth. Industrial development in of the East Asian countries is due to human capital development. Education, according to him, converts raw human beings into human capital. He quotes Schultz in stating that human capital can be classified into general human capital and specialized human capital. Most of the investments in education constitute human capital, while investment in research and development constitutes specialized human capital. Science and technology is a form of high level of human capital contributing to productivity at firms, industry and aggregate levels. To him, human capital


formation takes place through investment in training in training institutions (formal and informal) and on the job. Investment in human capital cannot altogether be left to the private sector. The state should also finance human capital activities adequately.

Tilak (1999) considers the setting up of the National Human Development Initiative in his article with the same caption, as an important measure of the Union Budget 1999-2000. This will make available food, health care, education, employment and shelter to the entire population of the country, within a decade. Of these factors, the author has given importance to one component namely education. Education is a basic human development need. There are yet a large number of children who should be in schools. To him, empowering the poor, calls for access to primary education. By the first decade of the 21st century, every child in India must have tolerable minimum level of quality education.

2.2.4 Health and Human Capital Investment

Yasodha (1980) in her article ‘The Economics of health and human capital’, says that the concept of human capital is not new to economics. Conceptualising the human factor as capital and wealth in economic literature, states, exhibit an amazing neglect of the impact of health on economic development and growth.

Lack of health affects the individual’s attitude towards work, initiative, creativity, learning ability, energy and capacity for heavy or sustained work. Thus a person’s health status has an impact on productivity and is an important part of his welfare. To her, personal incomes are poor proxies for individual welfare. In the real income of the individual, health is an important though unquantifiable component. To her, health is

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both a consumption and an investment. As an end in itself responsible for a good part of human welfare, health is consumption. As a key component of human capital, which determines the level and duration of one’s market and non-market activities, health is an investment.

Health standards, as important determinants of the longevity of human lives, differ from country to country. Educational achievement and work experience depend for a good part on health and nutrition.

The physical quality of life Index based on level of nutrition, standard of medical care, nature of income distribution, comparative levels of education and extent of employment opportunities, is a composite indicator of national well-being. In India, the five year plans, aim at providing basic health services to all persons. The health system in India is more curative than preventive.

According to Chandrasekar (1985) in ‘Nutritious Meal Programme for Children and Human Resource Development’, Tamil Nadu’s Nutrition Meal Programme for children introduced in 1982 feeds nearly seven million poor children in the age group two to ten years. It has enthused children to go to school and to improve school attendance. Additional enrolment of children, increased employment opportunities, improvement of physical health of children are some of the benefits of this scheme.

Srinivasan and Natarajan (1986) in their article ‘Voluntary Health Services in rural areas: A Study’, state health is an important input for the development of people and for socio-economic development of the country. Investment in health is an investment in human capital. Health influences productivity and production. Voluntary organizations

are delivering health care in rural areas especially in the state of Tamil Nadu. They provide integration of various health services such as medical care, nutrition, health education, maternal and child health, immunization, family welfare and control of communicable diseases. Voluntary organizations enable people to get medical aid at very low cost at convenient places. Health education creates health awareness among the people about various diseases and about consuming nutritious food.

Berger and Leigh (1989)\textsuperscript{27} in their article ‘Schooling, self-selection and Health’, report that schooling enhances health. They also point out that better health results in more schooling. To them education may lead to a greater degree of productive efficiency, in other words, a larger health output from a given set of health inputs. Health education program would have positive effects on the overall health of the population. To them health levels can be measured by mortality rates, morbidity rates, work days lost and self evaluation of health status.

Paul Schultz (1994)\textsuperscript{28} in his study “Human Capital Investment in Women and Men”, emphatically states that growth in total factor productivity initially depends on improvement in a population’s education and health. In his study, he compares private and social rates of return to education and health of men and women. Data for all regions from 1950 to 1990, suggest that the ratio of educational attainment of women to men is increasing.

To him, Health investments are the second major category of human capital accumulation. He observed, research by micro econometricians to study household surveys for a growing number of low income countries confirms the anticipated


relationship between household allocation of nutrition and health inputs and the production of healthy children and the links between well nourished and healthy adults and their productivity in the labour forces. He further adds that private returns for men and women are not different within a country. Moreover social returns, almost always favour investments in women.

The marginal social product of female schooling exceeds male schooling. Therefore the neglect of social and private investments in education, nutrition and health of both females and males, is not likely to foster rapid economic development effectively.

George Psacharopoulos (1995) in his article “Building Human Capital for Better lives”, arrived at the fact that countries, like individuals, cannot realize their full potential without knowledge and skills, otherwise known as human capital. To him, to invest heavily in human capital through improvements in education, health, nutrition and other social services are the strategies needed for further progress of human conditions.

Investing in human capital will fail, if too few jobs and opportunities are being generated to make full use of that capital, he observed. Investments in human capital instigate powerful changes in people’s lives. Health care and good nutrition improve people’s standard of living by reducing sickness and child mortality and by increasing life expectancy. Literacy and numeracy make it easier for people to learn new skills throughout their lives. Education and better health interact positively with fertility decisions. He further reported that large pockets of poverty coincide with regional disparities in opportunities for education and investments in health. To him, empirical evidence demonstrates that individuals profit from investments in education.

He said that the jobs that become accessible with education pay more, offer an opportunity for on-the-job training, raise productivity and bring faster pay increases as work experience accumulates. He outlined that for most people in developing countries, lost working time because of illness means lost income. 2.1 per cent to 6.5 per cent of yearly earnings were lost due to illness in eight developing countries, whereas the loss in the United States amounts to less than two per cent.

2.2.5 Employment of Human Capital

Kothari (1967) attempts in his article “Returns to Education in India” to calculate costs as well as yield of education. This enables him to estimate the social and private monetary rate of returns on education. The social monetary rates of returns according to him are 20 per cent for high school, 13 per cent for college, (for all types of courses), 10 per cent for arts and science and 22 per cent for technical and engineering courses. The private monetary return to college education came to 14 per cent as against 13 per cent. However, in technical and engineering education, the private monetary returns were 25 per cent. The private returns to high school education appear to be fairly good, while arts and science education did not seem fairly remunerative. To him, a major portion of the returns are returns to education.

Layard, Blaug and Woodhall (1969) in their book ‘The Causes of Graduate unemployment in India,’ highlighted the fact that educated unemployment has eroded some of the financial returns of additional education yet additional education upto degree level still remains a profitable investment. To them, the private rate of return is much higher at the primary than at the matriculate and graduate levels.

To them, live register of Employment Exchanges includes the names of educated people who already have jobs but also are looking for better ones. Their crude estimate of the social costs of educated unemployment in India in 1966-67, gives a figure of Rs. 700 million which is equal to one ninth of national expenditure on education and a third of one per cent of national income. To them University Employment Information and Guidance Bureau could greatly improve the matching of workers and jobs.

Kothari (1970)\textsuperscript{32} in his article 'Disparities in relative earnings among different countries', shows that disparities in earnings among different occupations in the poor countries are relatively much wider than those in the rich countries. According to him, earnings of physicians and surgeons when compared to that of an unskilled manual worker was 5.9 times more in United States, in Canada 3.2 times, in Mumbai 10 times and in Sri Lanka it was 14.2 times.

The remunerations in occupations requiring more training and education should be high to compensate for these costs and yield a reasonable return on what is invested in education and training. Attractiveness of different occupations depends on the gains from higher incomes relative to costs of learning of different occupations. He calculates internal rate of return for higher posts vis-à-vis the lower professions. To calculate internal rate of return, schooling required for each occupation, the direct cost of education, the indirect cost of education, that is, the earnings forgone while at school and the age-earning profiles for different occupations are considered.

Deshpande (1980)\textsuperscript{33} in his study 'Educated unemployment in India' states that the exact level of unemployment in India is not available. To him employment exchanges cover only the urban areas, registration is voluntary, and not all the unemployed would be


\textsuperscript{33} Deshpande, R.A., "Educated Unemployment in India". \textit{Southern Economist}. Vol.19, Number 1, May 1, 1980, pp. 53-55.
able to register. Moreover some persons who have registered are already employed but have registered for seeking better employment. Five per cent of the revenues received from customs, excise should be spent for the employment of the unemployed. Private sector should also employ apprentices.

Bharathi (1984)\textsuperscript{34} in the article, ‘Education and Human Resource Development in Karnataka Plan’ opines that placing trained personnels in the right jobs should be the objective of manpower planning. To him, University education in Karnataka has been producing graduates and post graduates in an increasing number. It is not enough if the required skill is imparted to the personnel in the state. Human capital should not be wasted. Universities must diversify its courses. Agriculture is an important occupation where human resource development has not been considered properly. It is necessary to train the human resources to the requirements of the agricultural sector. He suggests that the government of Karnataka must take up the task of finding out the human capital formed and the educational output in the state from time to time.

Such an effort will help to find out the shortage of persons with critical skills in modernizing the sector and the surplus labour in both the modernizing and traditional sector.

According to Israney (1988)\textsuperscript{35} in his paper on ‘the problem of Educated Unemployment – in the context of New Education Policy’, the problem of unemployment among the educated is a grave problem that India is facing. Educated unemployment represents a waste in the investment on human capital and it makes the educated, jobless young men to embark on illegal activities and leads to frustration among the youth. To him, a drastic reform of the educational system to gear it to meet the human capital needs

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of the country is clearly needed. Our young men and women should not only be job seekers but also become job creators.

Thakur (1990) in his study “Pattern of Human labour utilization and the extent of Unemployment among the weaker sections: A Rural-Urban comparative study in Himachal Pradesh” highlights that the level of income is determined mainly by the availability of gainful employment opportunities to the workers in a particular economy. His study points out that among the scheduled caste as well as non-schedule caste households, the percentage of unemployed mandays is lower as compared to the percentage of mandays available (willing) for additional work, which clearly indicates that the weaker sections, on account of the high rate of dependency, high burden of per capita debt, high percentage of unemployment, lack of gainful employment opportunities, continuously increasing prices, are willing for additional employment even at the existing wage rates in the urban areas of Bilaspur District. In the lower income group the scheduled caste households are ready for employment even at low wage rates as compared to the non-scheduled caste households.

Agrawal (1992) in his article ‘Educated unemployment’, says that unemployment is a serious problem, as scarce resources that go into their education and training are rendered as wastes. The size of educated unemployment is considerable. According to him, 15.76 per cent of those with education at graduate level was unemployed. He attributes this wastage of human capital to inadequate planning and defective educational system. To overcome this problem rapid growth, proper manpower planning and reorientation of the educational system are needed.


Bhat (1988)\textsuperscript{38} states in his article "Wage employment Vs self employment – an aspect of Human Capital utilization in India", that optimum utilization of highly educated manpower should be on top of any development agenda. In India, a significant chunk of the educated and trained manpower produced at a high private and social cost has remained unemployed and underemployed for long durations. As such, the only alternative is that a good chunk of this manpower must look for self-employment avenues. To him, self-employment is more remunerative than wage employment. In his study, he has analysed the earnings at various ages during the working span in wage employment and self employment in case of graduates in the disciplines of Medicine, Engineering and Technology and Agricultural Sciences. His study shows that wage employment is more remunerative (in terms of lifetime earnings) as compared to self-employment in the case of the graduates of these educational disciplines. Within the wage employment, the private sector job is more remunerative than that of the public sector for the graduates in Engineering and Technology.

2.2.6 The Process of Human Capital Formation.

Thiagarajan and Others (1995)\textsuperscript{39} in their article 'Human Capital Formation' explain that human capital formation refers to the process of acquiring and increasing the number of persons who have skills, education and experience which are critical for economic and political development of a country. Human capital formation is thus associated with investment in man and his development as a creative and productive resource. Investment in human capital, in a wider sense, means expenditure on health, education and social services in general and in a narrow sense, it implies expenditure on


education and training. They use Harbison and Myers indicators to measure Human Capital Formation. On the basis of the above indicators, India has been classified as a semi advanced country.

2.2.7 Measurement of the Stock of Human Capital

In Bowen's (1963) article, 'Assessing the Economic Contribution of Education' a variety of approaches have been employed to measure returns on education. The four main approaches are the simple correlation approach, the residual approach, the returns to education approach and the forecasting manpower needs approach. In the simple correlation approach some overall index of educational activity and some index of the level of economic activity are correlated. The residual approach consists of taking the total increase in economic output of a country over a given period of time, identifying as much of the total increase as possible with measurable inputs (capital and labour being the two measurable inputs usually chosen) and then saying that the residual is attributable to the unspecified inputs.

Another way of studying the economic consequences of education is by contrasting the life time earnings of people who have had 'more' education with the lifetime earnings of people who have had 'less' education. The difference can be expressed as an annual percentage rate of return on the costs involved in obtaining the education. The forecasting manpower needs approach provides the persons responsible for educational planning with information as to the likely future needs of the economy for persons with various kinds of training.

Harbison and Myers (1968)\textsuperscript{41}, in their book *Education, Manpower and Economic Growth*, reported that quantitative bench marks will be useful for a detailed analysis of levels of human resource development. To measure the stock of human capital, the levels of educational attainment that is enrollment rates at first, second and third levels of education and the number of person, in relation to the population or labour force, who are in high level occupations are considered.

To measure the level of human resource development for seventy five countries, seven measures have been used by them, in their statistical analysis i) Number of teachers (first or second levels) per 10,000 population ii) Engineers and Scientists per 10,000 population. iii) Physicians and Dentists per 10,000 population. iv) Pupils enrolled at first level (primary) education as a percentage of the estimated population aged five to 14 inclusive. v) The adjusted school enrollment ratios of first and second levels continued. vi) Pupils enrolled at second level (secondary) education as a percentage of the estimated population aged 15 to 19 inclusive, adjusted for length of schooling and vii) Enrollment in third level (higher) education as a percentage of the age group 20 to 24.

Haque (1980)\textsuperscript{42} in his study, ‘An Inter-temporal and inter-regional analysis of the Economics of Human Capital in India’ points out that human capital makes the worker more efficient, stronger in health, with increased skill, specialized knowledge and general understanding.

To him, the cost benefit approach, the residual factor approach, the manpower approach and the econometric approach help to study the economics of education. In a labour surplus economy like India there may be no opportunity cost involved in


schooling, as many individuals do not get employment after sufficient qualification. He considers that the cost-benefit approach to study the economics of human capital, is less relevant in the context of India. The residual approach measures the effect of research and extension type activities on productivity. The manpower approach is based on the assumption that education produces knowledge and skills in the labour force which add to productivity. The Econometric approach estimated a linear equation which relates stock of persons completing a given level of education and the number of students at each level to aggregate volume of production. To him, the return from investment on education more particularly agricultural education and research varied from region to region.

Jacob Mincer (1993) in ‘Studies in Human Capital’ reported two findings 1) That the growth of measured inputs of labour and capital was far smaller than the growth of output in the U.S. and other countries for which long time series were available, and 2) variance of labour income represented the major component of personal income inequality. To him, the social stock of human capital and its growth are central to the process of economic growth. Differences in individual human capital stocks and in their growth explains variation in the wage structure and in the personal distribution of income.

The individual’s human capital stock grows over the life cycle by means of investment, which is initially in schooling, later in job choice, job training, work effort, job mobility and in health. The level of earnings depends on the size and utilization of the human capital. The earnings profile is a reflection of growth of skills with age and experience.

2.2.8 Human Capital and Human Resource Approach to Economic Development.

Harbison and Myers (1965) in their book Manpower and Education” have made a detailed study of individual countries because problems of human resource development are unique to every country. Human resource development includes formal education at all levels. In addition it covers on the job training, individual self development and informal as well as formal adult education. To them, human resources development must be integrated with general economic planning. They clearly stated that increase in quantity of education makes it necessary to have increase in quality too.

Tobias (1971) in the book “Human Resources in India”, suggests that human resource planners must find methods of raising the effectiveness of India’s present and prospective human resources, especially in increasing skills and education. India needs an interrelated welfare-health-education-nutrition-urbanisation-agriculture-employment policy. To him, human resources utilization and development involves the behaviour of India’s population at work, at home and in school. It is through their employment and earned consumption that India’s human resources have an opportunity to share in the benefits of India’s progress. To him, vocational education will be effective, if skill acquisition is precise to the needs of Indian employers.

According to Harbison (1973) in his book ‘Human Resources as the wealth of Nations’, the ultimate basis for the wealth of nations is not income, nor material resources, nor capital but human resources. To him, if a country is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy, it will not be able to develop anything else.

46. Harbison, H. Fredrick., Human Resources as the Wealth of Nations, Oxford University
To him, human capital formation is a life time process. It encompasses work oriented activity in schools, factories, farms, governments, armies, and other institutions. Human capital like material capital is subject to depreciation as well as to accumulation. Underutilization of human resources is manifested in the form of open unemployment, underemployment, disguised or mal-employment. Underutilisation can be measured by the levels of real income which human activity generates. To him, third world countries must develop their human capital even if per capita income is low.

Kuppuswamy (1976)\textsuperscript{47} in his article ‘Human Resources and socio-economic development’, states that economic development cannot take place unless there is an expansion of a society’s human resources. This involves making people literate and educated and of training them in the new skills required by the innovations. He further stated that India has failed to develop its human resources both before and after independence. Thus the author states that without proper development and human resources, a country cannot achieve a real breakthrough.

Haq (1976)\textsuperscript{48} in his work ‘The poverty curtain choices of the Third World’, expresses that a sin of development planning is the neglect of human resources. To him, little investment has gone into the development of human resources in most developing countries particularly in South Asia. Partly the reason is the presumed long gestation period of any such investment and the lack of any quantitatively established relationship between such investment and output.

To Haq, the callous neglect of the education sector in the development plans of Pakistan made the 18 per cent literacy level of 1950 to slide back to 15 per cent in 1970, at


the same time, China progressed from a similar literacy level to almost universal literacy. To him, functional literacy and training can bring harmonious development. Development planners must devise a system of education which extends universal literacy, imparts relevant training and is accessible to all irrespective of income levels.

As Dewett and Wadhawan (1977) say in their article ‘Human Resources and Economic Development’, knowledge, skills and the capacities of all people in the society to undertake production is human capital. Inadequacy of human capital may thwart development. To them, human capital is a better instrument to enhance the efficiency of production than physical capital. After world war, the economic growth of the advanced nations was mainly due to non-physical capital. Human capital is a potent source of economic growth. The productive utilization of physical capital depends on investment in human beings. In underdeveloped countries absorptive capacity of physical capital is low, due to the inadequacy of technical personnel, skilled labour and administrative acumen. To them, investment in human capital includes investment in education, health and nutrition.

Haq (1982) in his article ‘Negotiating the Future’, states that the demographic balance is rapidly shifting against the industrialized nations. Of the net addition to the world population in the next two decades, 90 per cent will be in the Third world. The future markets and labour surplus lie in the South. Many cities situated in the south will provide a restless pressure for international migration, thus changing human capital formation in these countries.

Sen (1983)\textsuperscript{51} in his article ‘India: The Doing and the Undoing’ identifies a basic dichotomy in India. The country permits the injustice of keeping a large majority of people illiterate while the elite enjoys the benefits of a vast system of higher education. It permits endemic malnutrition and hunger, that is not acute, so long as these happen quietly; it does not permit a famine because it is acute and cannot happen quietly. He contrasts India’s dismal performance on the elimination of regular hunger and expansion of longevity with that of Sri Lanka and China. To him, the contrast between China and India, is due to the greater political commitment and success on the part of China, in raising the general level of nutrition. The rise in the quality of life of China and Sri Lanka is the result of efficient economic and social planning and government activism.

According to Rao (1984)\textsuperscript{52} in the essay ‘Human Factor in Economic Development’ planners in developing countries have not recognized the importance of planned utilization of human resources. Human resources are the energies, skills, talent and knowledge of the people. To him, human resource is manifested in several forms. Pure physical labour or brawn with little by way of skill is one such manifestation. Operatives component in the workforce, with different skills and scientific, technological and managerial manpower are other manifestations of human resource. Entrepreneurship is another manifestation of human resource. India finds supply demand imbalances in scientific, technological and managerial manpower.

Khullar (1987)\textsuperscript{53} in his article ‘Education a vital investment in progress’, points out that human resource development is both an important national goal and essential means


of achieving rapid socio-economic progress, in the Indian context. Human resource development is the process by which the population is equipped with the requisite physical and intellectual strength, skills, attitudes, and values to participate effectively in the process of national development and for individual fulfillment and creativity. Human resource development can be defined as the maximization of the realization of the potential of human beings as well as promotion of its fullest utilization for economic and social progress. The role of education in human resource development is that of a catalyst.

Integration of all related activities of education, art and culture, youth service and sports, programmes for development of children and women, should be the first step towards achieving the objectives of integrated human resource development.

Nandekar (1990)\textsuperscript{54} in his article ‘Human Resources both an End and Means’ states that developing countries are facing a situation where population growth outpaces the pace of development. The primary objective of planned development is to promote economic growth. To sustain this process, the economy needs capital formation and development of human capital. Human beings are an important variable in the over-all efforts of development. Therefore plans should aim at increasing general literacy, functional literacy and provide facilities for acquiring technical skills.

To him, by investing in human capital, which is realized through health and educational programmes, the adaptability, productivity and mobility of labour will improve.

According to Ghosh (1996)\textsuperscript{55} in ‘Human Resources Development’ backward countries are backward due to acute shortage of skilled personnel and technicians.


Education imparts skill to translate knowledge into action. To him human capital contributes more to economic growth than physical capital.

In India the emphasis has been more on physical capital formation than on human capital formation. A well integrated and co-ordinated educational planning in physical and financial terms to accelerate the human capital formation is the essential prerequisite of the times.

Haq (1997)\textsuperscript{56} in his study ‘Human Development in South Asia’, says that South Asia is fast emerging as the poorest, the most illiterate, the most malnourished, the least gender sensitive and indeed, the most deprived region in the world. Yet it continues to make more investment in arms than in the education and health of its people.

There are many lessons that South Asia can learn from the experience of East Asia: the two Asian regions started at roughly the same nominal per capita income three decades ago but East Asia (including China) now enjoys twenty seven times the per capita income of South Asia and twice its HDI. East Asia’s investment in basic education contrasts sharply with the vast desert of illiteracy in South Asia. To him, South Asia can finance an ambitious human investment plan in the next fifteen years by earmarking an additional 1.6 per cent of its Gross Domestic Product. To Haq, there is a tremendous diversity in human development levels across Indian states. Wherever India has made adequate investment in the education and skill training of its people, the strategy has paid rich dividends.

According to Ashok Kumar’s (1998)\textsuperscript{57} article ‘Perspective for Human Resource Development’, all aspects of development in the final analysis should promote Human Development. In order to enjoy a fuller life, policies and programmes pertaining to


education, health and welfare must be reoriented and reconstructed. The emergence of West Germany and Japan as world economic powers has been attributed to the role of human capital in economic development. Bihar, in India, is cited as a case of poor economic performance, despite being endowed with rich mineral resources. This has been due to non-development of human capital.

The organization for Economic Co-operation and Development’s (2001)\textsuperscript{58} report named “The well being of Nations” – The Role of Human and Social Capital”, describes the investment on human capital and its impact on growth and wellbeing of nations. To them, human capital is a resource which supports economic and social development. Human capital, the report says, is defined by individually possessed knowledge, skills, competence and attributes. The report which is based on empirical studies proves that human capital and social capital have important linkages. Human capital results in positive outcomes like higher income, life satisfaction and social cohesion. Human capital enables individuals, communities, firms and societies to meet the demands of rapid social and economic change. The distribution and quality of human capital will influence the well being of nations. The report further adds that the scope of public policy to change the quality, stock and distribution of human and social capital in the short term is limited. Public, private and voluntary agents can bring out long term improvements in human capital.

A review of literature indicates that today human capital has been relegated to the background because there has been a shift of focus from human capital to human resource development. The present study is undertaken to stress that Human Capital should merit equivalent attention as Human Resource Development.

A perusal of the previous studies (1960-2001) reveals that human capital has been dealt with in an elaborate manner. The concept, scope, and relevance of human capital, the influence of education and health on human capital, the employment of human capital, measurement of the stock of human capital and human capital and human resource approach to economic development have been covered in the earlier studies. The utilization of human capital has been given inadequate attention and recognition by the earlier writers. That there exists a sparse literature on utilization of human capital itself can be considered as a significant research gap.

As far as the Researcher is concerned, till date, no study has been made by any researcher in India as well as abroad about the utilization of human capital at the national level or state level or district level except for the study undertaken by Bhat (1998). This study concentrates on utilisation of human capital with reference to agricultural, medical and engineering students in Jammu and Kashmir. Dhesi (1979) has also made a passing reference to human capital utilization especially in research and development, and has stressed more on human capital formation. Hence the present study is an attempt to fill this research gap. The present study varies from the earlier works of Bhat and Desi, as it covers utilization of persons from the plus two stage onwards and in any job they are working in.

The researcher has undertaken the present study in Kanyakumari District because it is endowed with a high degree of human capital. Moreover a study on utilization of human capital in Kanyakumari district, has not been taken up by any researcher, so far. This is a pioneering effort undertaken by the researcher regarding utilization of human capital in Kanyakumari District.
2.3 OBJECTIVES OF THE STUDY

1. To find out the extent of human capital formation and its utilization in Kanyakumari district.

2. To find out the human capital formation in Kollenchi and Parakkai village and the parameters influencing it.

3. To analyse the pattern of utilization of human capital in Kollenchi and Parakkai.

4. To assess the human capital formation and its utilization among women in Kanyakumari District and in Kollenchi and Parakkai villages.

5. To find out which village is better in human capital formation and utilization.

6. To find out the reasons for unutilisation of human capital in Kollenchi and Parakkai.

2.4 HYPOTHESES

1. Human capital formation in Kanyakumari district is very high and it is not utilized properly.

2. There is positive association between caste and human capital utilization in Kollenchi and Parakkai.

3. In Parakkai and Kollenchi villages, there is a close relationship between higher formation of Human Capital and its utilization.

4. The human capital of women is not only unutilized in Kanyakumari district, but also in the villages of Parakkai and Kollenchi.

2.5 METHODOLOGY OF THE STUDY

The study is based on both primary and secondary source.
2.5.1 Collection of Primary Data

In Kanyakumari district, there are four taluks. They are Agasteeswaram, Thovalai, Vilavankode, and Kalkulam. The literacy rate of the four taluks were collected from the 1991 census reports. One village, namely Parakkai from the Agasteeswaram taluk which has the highest literacy rate among the villages of the district was selected. Another village, Kollenchi, from the lowest literacy rate prevailing taluk of Vilavancode of Kanyakumari District was also selected. The prevalence of high literacy rates in Parakkai and low literacy rates in Kollenchi, was the criteria, for the selection of these villages.

Initially, a complete enumeration survey was undertaken by the researcher with the help of a schedule to collect information about the size of the family, age of members, caste, religion, educational attainment of members, and their occupation from the total 297 households which consists of 1200 individuals of Parakkai village and 311 households which consists of 1394 individuals of Kollenchi village. This survey facilitated to collect facts about the social and educational background of the village which is very much essential for the selection of sample for the study.

Afterwards, the entire population was categorised age-wise and the researcher has selected the age group of 18 to 40 years for the study, because the minimum entry age prescribed by the government for a job is 18 and maximum age is 40. The total sample in above said age group in both villages was 401 and 411 respectively.

For selecting respondents for the study the researcher has followed the Probability Proportionate Size (PPS) method. From the 401 respondents and 411 respondents in the age group 18-40 years, in Parakkai and Kollenchi, 40 per cent of the population was selected, that is 160 samples were taken from each village. Thus a total sample of 320 were taken from both the villages.
On the basis of the stratified random sampling method, the total respondents in the age group 18 years to 40 years were divided into four strata namely the illiterates, the educated unemployed, the under employed and the educated women. Eighty samples were selected from each strata respectively to find out the extent of the utilization and non-utilisation of Human Capital, in both the villages.

2.5.2 Collection of Secondary Data

Secondary data regarding education, health and employment was collected from District Statistical Office, Nagercoil; District Educational Office, Nagercoil; Public Health Department Office, Nagercoil; Office of the Employment Exchange, Nagercoil; Directorate of Public Health Services, Chennai; Department of Statistics, Chennai; The Directorate of Employment and Training, Chennai; The Various Census Reports and Provisional Table of 2001 census, Human Development Reports, World Labour Report and World Development Report.

2.6 TOOLS USED

The analysis of the data has been done with the help of percentages, index number, weighted index number, regression, chi square test and trend lines. Index number has been used to measure the growth of literacy rate, area-wise and sex-wise in the district.

Index Number has been calculated on the basis of the formula

\[ I_t = \frac{Y_t}{Y_0} \]

where \( Y_t \) = value of the \( Y_t \) year

\( Y_0 \) = value of the base year (1961 in this study)

Weighted index number helped in framing an index of educational standard among the religious communities of the villages.

Weighted Index Number = \( \frac{\sum N_i W_i}{\sum W_i} \) where \( N_i \) is the population of the \( i^{th} \) category of education and \( W_i \) is the weight assigned to the \( i^{th} \) category of education.
Chi square test where \( \chi^2 = \sum \frac{(O_i - E_i)^2}{E_i} \) where \( O_i \) is the observed frequency and \( E_i \) is expected frequency. Chi square test has been applied to find out the relationship between caste and occupation and education and occupation.

To fit time series trend lines, a linear regression model \( Y = a + bx \) has been calculated where \( a \) and \( b \) are parameters to be estimated.

Trend lines were calculated for literacy, enrolment in Schools, Colleges and unemployment.

2.7 LIMITATIONS OF THE STUDY

The study is based on primary and secondary data. The secondary data available at the village level and district level offices mainly depend on the census data. These offices have failed to update this data after the 1991 census. Utilisation of human capital is interpreted in terms of employment as this data was available.

The enrolment data on the records of the Chief Educational Office and District Statistical Office was not proper. Due to fluctuation in enrolment rate, difficulties were encountered in calculation of drop out rates and therefore drop out rate was not calculated.

The data on IMR, Life expectancy collected for providing health information was available at the world, asian, national, state and district level. But such data could not be collected at the village level, as such facts were not recorded in the villages. This was a major lacunae in the data collection. So in order to find out the health condition of the villages, the health expenditure incurred by them annually, was considered as a factor to indicate the health standards of the people.

2.8 CHAPTERISATION

The Thesis consists of eight chapters in all. The first chapter covers the definition of the concept of Human Capital, components of Human Capital, Human capital - A global trend, Human capital in Asia, Human Capital in India, and Human Capital in Tamil
Human Capital is explained in terms of Education, Health and its utilization in terms of Employment aspects.

The second chapter deals with Review of literature, methodology, importance of the problem, objectives, hypothesis and limitation of the study. Review of literature is studied under the following heads – Concept of Human Capital, Scope and Relevance of Human Capital, Education and Human Capital, Health and Human Capital, utilization of Human Capital, the Process of Human Capital Formation, Measurement of the stock of Human capital, and Human Capital and Human Resource Approach to Economic Development.

Chapter III analyses the profile of Human Capital in Kanyakumari District. It gives an overview of the literacy status in the district. Enrolment of students in schools and colleges, and health in terms of life expectancy and Infant Mortality rate which are contributory factors to Human Capital development in Kanyakumari District, are also studied. The utilization of Human Capital in Kanyakumari District and the number of non-workers in Kanyakumari District form part of the third chapter.

The fourth and fifth chapters are concerned with an analysis of Formation and Utilisation of Human Capital in Kollenchi village and Parakkai village of Kanyakumari District. The population, caste-wise break up of population, Educational profile of the people, Religion and Education, caste and Education, Parent’s education and children’s education, the nexus between education and employment, the utilization of human capital, unemployment in these villages, and details of the sample study, the health status of the respondents in the two villages, are the basis of these two chapters.

The sixth chapter is a comparative chapter, wherein comparative study of the two villages is made. Human capital formation, occupation pattern, non-utilisation of human
capital and comparative view of sample study in the two villages are the basis for comparison.

The seventh chapter is exclusively on the formation and utilization of human capital of women. The education of women in terms of literacy and enrolment at the district and village level is assessed. The utilization of the human capital of women district and village level is also analysed. The non-utilisation of the human capital of women is also dealt in this chapter.

The last chapter is a chapter on summary, findings and suggestions.