Chapter - II
Approaches to Education: An Overview

The meaning and purpose of education has undergone much change in the past few centuries both in its intrinsic worthiness and instrumental roles. It has taken many meanings from: enlightenment - dispeller of darkness, agent of social change, leveller / perpetuator of inequality, human capital, a segmentation device and to a 'private merit good', to mention a few. Such connotational and instrumental changes are partly due to changing ideological mindsets and praxis. This chapter briefly outlines the changes in the conceptualisation of education with a view to capture the dynamics of socio-economic changes in the society with education as the centre-piece of analysis.

Education In Pre-Smithian Economic Thought

In the ill-organised and random literature that ranges from the writings of John Hales to those of Adam Smith one can identify the changing role of education. If the early mercantilists confined education only to the privileged groups in society, the latter writers and the classical economists attribute great power to education and advocated mass education. John Hales, a mercantilist

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1 The review of the ideas of the earlier economists is based on the following articles by E.A.J. Johnson, R.C. Blitz and J. Vaizey in Readings in the Economics of Education (UNESCO, Paris 1971).
of the mid 16th century views education as a means to create a cadre of 'learned men' to counsel the statesman, artificers, merchants and farmers in a structured society (Johnson 1971). In his opinion the learned man is the 'doctor' who find solutions for the nation's economic troubles. Hence educated men are treated as great scholars who could contribute to the well being of the nations. Gerald Malynes writing in the 1620s also favours education as the best prescription for political stability and economic well-being in a structured society (Johnson 1971). In these writings, education seems to be confined only to certain sections of the population.

Education gets a broader and vocational status in the writings of William Petty. He advocates the educational development of the masses. According to him all should learn trades, increase their skills and broaden their mental horizons. He argued that education was the right of every individual in society and believed that talents were not distributed among children according to their social and economic status. He also held the view that human resources are far more important than natural resources because education enhances the capability of human resources. Thus this study considers educational development of the masses as indispensable for national economic progress.  

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2 Misselden and Thomas Mun who were contemporaries of Malynes advocated the need for educating merchants to conserve the nation's 'natural wealth'. According to them education with good training, maximises the export of a nation's 'artificial wealth' which is the labour and skill of its people. (E.A.J. Johnson in his article on "The place of learning, science, vocational training and 'art' in Pre-Smithian Economic Thought" in Readings in the economics of education. UNESCO Paris 1971).

3 Nehemia Grew a contemporary of Sir William Petty, also assigned a strategic role to mass education in economic development. He argued that the essential ingredient in development is the strength, intelligence and the numbers of a nation's people. Hence they should be carefully and properly trained in their respective occupations and tasks for better utilisation and development. James Stewart, the last among the great mercantilists also held the view that mass education was necessary mainly for the growth of agricultural productivity which helps the other sectors of the economy.
Thus in the pre-Smithian literature, education plays various roles. For some it was an instrument for creating a cadre of learned men. For others it enhances the ‘art’ or skill that helps the accumulation of more wealth. Again a shift of emphasis from restricted education to mass education can be identified in the various writings.

**Classical Thought on Education**

Classical economists\(^4\) emphasised the micro relationship between education of an individual and the benefits accruing to him from his education. They ascribed great power to education and highlighted the intrinsic and instrumental role of education in individual and society well-being. The views held by some of the greatest among them are indicated below.

Adam Smith placed education at the centre of his thinking. According to him the system of national education indebted for “superior intelligence and the providential, orderly habits of the people”, was the basis of good civil government, economic activity and progress (Vaizey 1962). In dealing with the efficiency of educational system, he favoured private educational systems. He argued for compulsory education or mass education and proposed that the Scottish system of Parish schools should be adopted in which people are compelled to go to school. He favoured parish schools because they are less expensive, more efficient and beneficial to the whole society. Educational expenses were met by the general contribution of the whole society. Thus Adam Smith favoured mass education with public contribution highlighting the beneficial effects of education for rapid economic progress.

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\(^4\) The review of the ideas of the earlier economists is based on the studies by Blitz (1961) Johnson (1964) Vaizey (1962) and Blaug (1975).
Ricardo and Malthus also maintained the same idea about education. They pointed out the external economies of education.\(^5\) J.S. Mill (1806-1873) carried the Malthusian view of education further and argued for an effective national education of the children of the labouring class.\(^6\) He also upheld the social role of education and argued for public education. At the same time he did not object the entry of private persons in setting up and running schools.

Nassau W. Senior (1790-1864) again points out the intrinsic importance of education, favouring drastic government intervention in the field of education.\(^7\)

John R. Mc Culloch (1789-1854) was concerned with the vocational aspects of education. He explained the great economic prosperity in terms of technological skills and held the view that education directly contributed to worker productivity.

Thus the review of ideas of the classical economists on education emphasises the role of education as a key to further development. They favoured mass education and placed education as a social good.

Among the neo-classical economists (1870-1930) Alfred Marshall alone showed some attention to the field of education. He in his "Principles of Economics", refers to education as national investment. According to him the most valuable of all capital is that invested in human beings (Vaizey 1962). He

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5 Malthus explained that mass education may act as a check on population growth since education enabled a person to practice "moral restraint".

6 J.S. Mill favoured government or voluntary actions in education and argued that "it is in the public interest that all people should have an elementary education and some "superior minds" a better one. He was also of the view that parents will not and cannot defray the educational expenses of their children and hence it should be met by government or other voluntary agencies.

7 According to N.W. Senior education would constitute an automatic check on population growth, ignorance and poverty. He believed in the external economies of education (Senior 1928).
believed in the external economies of education and favoured general education together with 'technical education'.

**Modern Approaches to Education**

Although education was given a prominent place in the economic literature of the Mercantilists and Classical economists, its importance as an economic investment found its place in Economics only from the 1960s. The concept of education as an investment came into existence with the Presidential address of Theodore Schultz to the Annual Conference of American Economic Association in 1960. This section reviews the major human capital theories and its relation to economic growth.

**Human Capital Approach**

According to human capital approach, education is regarded as an investment in human capital, capable of yielding returns in future. Schultz pointed out that 'investments in man, like investments in property are ways of establishing additional income streams' (Schultz 1959:109-17). Hence he advocated a higher priority for increasing investment in education and developed a human capital concept to quantify the contribution of education to economic growth. Education is an investment in human capital and such investments not only increases individual productivity, but also lays the technical base of the type of labour force necessary for rapid economic growth (Schultz 1961)\(^8\).

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The concept of human capital explained above suggests that education raises the productivity of workers and increases their lifetime earnings by imparting useful knowledge and skills. But this argument is criticised on the ground that the higher earnings of educated workers simply reflected their superior ability rather than the educational process (Psacharopoulos 1975). Superior ability is found to be the reason for earnings differentials and this approach is called ‘ability adjustment’.

**Screening or Filtering Approach**

This approach does not subscribe to the productivity-augmenting role of education. Instead, it considers education simply as a device which confers a certificate or diploma enabling the holder to obtain a well paid job without directly affecting his or her productivity.\(^9\)

Screening approach\(^11\) also indicates that an individual has certain abilities, aptitudes and attitudes and the educational process helps to shape and develop those attributes. Hence education not only provides knowledge and skills, but also moulds the personal characteristics or attributes of an individual. This means that the concept of investment in human capital is still valid but it must be extended to include activities which affect personal attributes as well as

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\(^9\) Screening approach is also known as sheepskin approach because education simply confers a certificate or sheepskin to enable the holder to get a job without affecting his productivity. Psacharopoulos, G (1979), ‘On the Weak versus the Strong version of the Screening Hypothesis, Econ. Letters, 4:181-5.

\(^10\) But his argument has been refuted by different studies on the fact that employers continue to pay educated workers more than uneducated workers throughout their working life. (Psacharopoulos 1979).

skills, and it must recognise that such activities increase worker's productivity in complex ways.

**Passport to Job Competition and Entry**

This model explains how education becomes important in job competition and entry. In this context the role of education is to provide background characteristics; it is a proxy variable to certify the 'trainability' of the prospective employees. Employers look for this aspect in the labour market so that they can reduce the training costs of their employees. The better educated pick up skills more quickly than the less educated and hence education serves as a passport to job competition.\(^\text{12}\)

**Consumption-Investment Aspects of Education**

Introduction of the concept of education as an investment created a controversy between the consumption and investment aspect of education. Schultz (1961) has identified three categories of educational expenditure.

1. Expenditure that satisfy only consumer's preferences without enhancing their capabilities - these represent pure consumption.
2. Expenditures that enhance capabilities without satisfying consumers preferences - these represent pure investment
3. Expenditures that have both consumption and investment effects.

The distinction between consumption and investment aspects of education seem to be more of an accounting than an economic problem (Blaug

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\(^{12}\) This model explains some of the other forms of investment in human capital. Here the skills of the labourers are developed through on-the-job training and work experience. This increases the earning capacity and can therefore be regarded as investment in human capital. (Blaug 1976).
Irrespective of the differences in opinion, the consumption value of education has been seldom denied in economic literature. Vaizey (1964) asserts the consumption aspects of education, while Musgrave (1966) recognises both the consumption as well as the investment aspect of education by dividing consumption aspects of education into two parts: (a) current consumption—the delights of attending schools and (b) future consumption—the ability of enjoying a fuller life in future which appreciates the investment aspect of education. Shoup (1969) treats education as productive consumption because it pays for itself in part or in whole in increased output.

Education, put in the framework of classical economics, is investment and in the Keynesian analysis it is consumption. Blaug, after having discussed education in the Classical and Keynesian frameworks of income determination and economic growth reaches the conclusion that it is the objective with which education is being pursued which categorises its consumption or investment value. If it is being sought for its own sake, it is consumption and if it is being taken as an input to increase future earnings, it is investment (Blaug 1970).

Intrinsic Value and Instrumental Role of Education

In the light of the consumption-investment controversy, we bring in the intrinsic-instrumental role of education put forward by Dreze and Sen (1996). According to them education has an intrinsic value and it is valued for one's own sake for the expansion of freedom. Elimination of ignorance and illiteracy

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14 Schaffer (1961) argues that the consumption and investment effects of education are inseparable and furthermore that the motives of investors are almost invariably conditioned by social, cultural and other factors. Schaffer H.G. (1961) 'Investment in Human Capital' American Economic Review Vol. LII, No.4.
through education are for the betterment of one's own life and it is the intrinsic value of education. At the same time it can be instrumental in contributing to further economic growth. The intrinsic aspects highlight the consumption aspect of education and the instrumental role, its investment side.

**Economic and Non-Economic Objectives of Education**

Expansion of educational system in a country can be explained in terms of its objectives. Education viewed as an investment spells out the economic objectives of education. Human capital theories explain how education raises the productivity and earning capacity of individuals. At the same time, the externalities of education or spill over effects pointed out by Bowman (1962) explain the non-economic objectives of education. They are (a) the income gains of persons other than those that have received additional education, (b) income gains of subsequent generations from a better educated present generation (c) occupational flexibility of the labour force (d) lawful behaviour and voluntary responsibility for welfare activities (e) political stability and competent political leadership (f) emergence of 'social cohesion' by the transmission of a common cultural heritage (g) enhanced enjoyment of leisure.

All these economic, social and political objectives make education a "quasi-public good". It therefore turns out that education is not only an investment in human capital but also an investment in social capital (Coleman 1997). As a form of human capital, its benefits are reaped by individuals who invest their time and resources for building up their capabilities in the form of a higher paying job or higher-status work. But as a social capital, the whole community or society gets benefits of such investments. Hence state intervention or public intervention is called forth in
educational expansion. Any attempt to provide education by a market process must result in social under investment in education.

Education and Social Change

Education is also accepted as an agent of change. Social reformers, especially in underdeveloped countries were conscious of the potentiality of education as an instrument of social change (Gore 1994). The spread of education would ensure the spread of new values which can lead to further social and political reforms. Education is commonly represented as the flame or light of knowledge which dispels the darkness of ignorance (Gore 1994).

Dreze and Sen (1996) assign five important roles to education in the social and economic system of a country. They are (1) the intrinsic importance of education, (2) instrumental personal roles, (3) instrumental social roles, (4) instrumental process roles and (5) improvement and distribution roles. All these roles emphasise interpersonal effects of education and this is said to be of great strategic importance in the process of economic development.¹⁵ Hence state and public intervention is highly warranted in the promotion of education.

Economic Value of Education

Four approaches are mainly used to measure the economic value of education.¹⁶ They are (i) simple correlation approach, (ii) residual analysis, (iii) direct returns to education and (iv) forecasting manpower approach. These

¹⁵ Dreze and Sen argued that the limited success of Indian development efforts in the social sector is attributed to the failure of an adequate public policy in education and health. (Jean Dreze and Amartya Sen, India Economic Development and social opportunity, Oxford University Press 1996).

approaches are briefly reviewed to highlight the various methods in measuring the economic returns to education.

Under the simple correlation approach, correlations of some overall indices of educational and economic activities are found out to show the relationship between education and G.N.P. But one fundamental objection to this approach is that the education-G.N.P. correlation does not tell us anything about the causal relationship between them. This is mainly due to the time problem in estimating returns from education. Generally the returns from education takes time and again it may continue for a long period. Hence this approach is misleading (Sheehan 1970).

In residual approach, part of the output due to capital and labour are calculated for a given period. Then the part of output not attributed to capital and labour, i.e, the residual is reckoned as the contribution of education.17

In the rate of returns approach, the life-time earning profiles of persons with different levels of education are constructed. There are two types of rate of return: (1) private rates of return and (2) social rates of return. In the calculation of private rates of return, earnings are taken exclusive of income tax and in social rates of return, earnings are reckoned inclusive of income tax.

17 Schultz, Becker, Kendrick, Slow, Denison and others have used this approach to identify the contribution of education to total economic output of the country. According to Kendrick 50 per cent of the rise in the output per labourer of the USA for the period 1850 to 1957 was attributed to the residual. Slow found 87 per cent increase in output per annum per man hour in the U.S. between 1915 and 1955 due to residual.

18 A.K. Sen raised serious objections to this approach. According to him, it is based on the assumption of the marginal productivity theory of distribution rather an empirical verification. (Sen 1966) Bowen attributes the residual to the contribution of physical capital used by the well educated work force. (Bowen 1968). The residual may also include changes in output due to economies of scale, improvements in the health of the labour force, informal education, changes in the product mix and reorganization of the economic system (Blaug 1968).
The main merit of this approach is that it measures the profitability of a given type of education in terms of a single figure. But it has some serious limitations.\(^{19}\)

Manpower forecasting approach estimates the future requirements of educated manpower for fulfilling the given plan targets. Economists such as Tinbergen, Correa, Bos, Parnes and Harbison have developed this approach which postulates fixed relationship between national income growth and manpower stocks.\(^{20}\) But this approach also suffers from some limitations.\(^{21}\)

**Educational Expenditure Policy and Rate of Return Studies**

All the approaches reviewed above highlight the economic value of education and guide the policy makers in the formulation of expenditure policy on education. In this section an attempt is made to review some of the rate of return studies in education.

There are two types of estimation regarding the rate of return on investment in education. One method is to calculate the return to the individual's investment in education by comparing the costs incurred by the individual and the returns received by him as a result of this education. The resulting rate is

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\(^{19}\) Blaug points out the following defects against this approach. Firstly, the earning differentials may not be due solely to educational differences. It may be due to differences in innate ability, achievement drive, social class etc. Secondly, it ignores the indirect benefits of education. Thirdly, this approach is based on a number of strong assumptions which are neither intuitively plausible nor empirically verified (Sen 1966).

\(^{20}\) Of the above approaches manpower planning approach is preferred by the policy makers in India for educational planning in higher levels of education (Tilak 1977). Socialist countries followed this economic approach to educational planning. They regulated the investment in education, either on the basis of manpower requirements of the economy or on the basis of the economic efficiency of investment in education like other sectors of the economy.

\(^{21}\) The main objection to this kind of estimation is its underlying assumption of fixity of the relationship between manpower stocks and national income. The exclusive concentration on formal education at the secondary and tertiary levels and the neglect of the role of primary education and informal education are also among the weaknesses of this approach.
termed as private rate of return. The second method is to derive the social rate of return by treating expenditure on education as a social investment and to calculate the cost incurred by and the returns accruing to society, (Vaizey 1972)\textsuperscript{22}. In the formulation of education expenditure policy, the social rates of return are counted most and the private rates govern the individual decision on his education (Blaug 1970).

Various studies, Schultz (1961), Becker (1964), Psacharopoulos (1973) have estimated the social and private rates of return to investment in education and revealed that rate of return varies according to the levels of education between countries.\textsuperscript{23} They also maintained that the returns to education in less developed countries are higher than the returns in more advanced countries.

Blaug (1970) in his rate of return analysis of education found that private rates of return are almost always higher than the corresponding social rates of return. Naturally, the demand for education is likely to be high and the private initiatives in exploiting this rising demand will still be higher. A number of studies were undertaken in India too on the rate of return on education.\textsuperscript{24}

All major studies on the returns on education both in India and abroad highlights the social and economic value of education. Such studies guide the


\textsuperscript{23} Study made by Suhultz, (1963) shows the estimation of social rates of return for various levels of education. But the use of income forgone to measure opportunity costs have raised serious objections and it is elaborated in Bowmen M.J, "The costing of human resource development in the Economics of Education," E.A.G. Johnson and J. Vaizey (eds) 1986.

\textsuperscript{24} Studies on returns to education were undertaken by Haberger, Hussain, Nallagoundan, Pandit, Blaug, Layard and Woodhall. All these studies have demonstrated a direct correlation between educational attainments and personal earnings. A critical analysis of these studies are presented by J.B.G. Tilak (1980) in his book, "The Economics of Inequality in Education".
educational expenditure policy of both the government and the household and generate more investment in education.

**Private and Institutional Cost of Education**

In the rate of return studies in India, the benefits of education are compared with total resource cost. Total resource cost is a measure of what it costs to the society for educating a student (Chalam 1986). It shows how much cost the parent and the government bear in the total resource cost of a student. It is divided into two components, (1) the private cost of education and (2) the institutional cost of education. Institutional investments provide educational facilities and private efforts make it possible to take advantage of these facilities. Hence these two costs are 'inter-related and inter-dependent' (Tilak 1985:13).

Cost incurred by the students or parents or both are known as private costs of education. It includes the total household expenditure on education by way of fees and non-fees. Institutional cost indicates the expenditure incurred by the government or institution for providing the facilities of education. It includes the expenditure on teaching and non-teaching salary, land, buildings, equipment and maintenance. It is usually divided into two categories, the recurring costs and non-recurring costs or variable and fixed costs.

**Investment Analysis in Education**

Economic and social benefits attributed to education make it a public merit good rather than a 'private merit good'. Hence the government and the society as a whole undertake the responsibility of financing educational institutions. Of-late, government has been encouraging private institutions in educational sector by its policy shift in favour of self-financing institutions. In a
highly competitive world, people prefer quality education and education has become a 'private merit good'.

The producers of these 'private merit good' are private educational enterprises run for profit motive, besides other 'neighbourhood effects' of an educational institution. The viability and profitability of such investments may be examined and measured not in terms of the conventional rate of return analysis of education but in terms of investment analysis.

The economic literature reviewed so far highlighted the intrinsic and instrumental role of education and also the conceptual changes in education from a social good to a 'private merit good'. The direct and indirect effects of education necessitated public intervention in education. But the private merit good status changed both the praxis and discourse on education. Hence the question relating to costs and returns, private and institutional has become crucial in educational investment. Before discussing these issues against empirical evidence, history of educational initiatives in Kerala, the socio-economic conditions in which they emerged, the various agencies that were in the vanguard, the motives that guided them are discussed in chapter III.