CHAPTER 1

INTRODUCTION, METHODOLOGY AND REVIEW OF LITERATURE
CHAPTER - I

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1. INTRODUCTION

From the very days of the development of economic doctrines, economists started enquiring into the nature and causes of Wealth of nations. The Mercantilists viewed trade as the only source of economic growth. Later, during the days of the Physiocrats, land was identified as the most important factor of economic growth. By the end of the Eighteenth Century, the Classical Economists came out with a new theory of economic growth in favour of capital. The Marxian thought sang hymns in praise of labor. By the beginning of the Twentieth Century, entrepreneurship became the honoured factor in the theory of growth. At the beginning of the second half of the Twentieth Century, the crown was captured by economists of the Nobel Laureates like Theodore Schultz (1961) and Garry S. Becker (2002). Schultz's Human Investment Revolution in Economic Thought as it aptly known, resulted in a recognition of education as a productive sector and of the expenditure on education as an 'Investment' producing "Human Capital", comparable with physical capital in production.

Human resources can be developed with the development of eight ingredients such as: food and nutrition, clothing, housing and sanitation, health facilities, education, information media, energy consumption and transport. But the most important among them is education, because education contributes to the social development almost from all the ways, that is, education contribute for the development of the economy of the
regions I countries, motivates the masses with more migration from rural areas to urban areas reduce fertility, reduce significantly inequalities and poverty of the masses and further turns the backward villages into the villages of science and technology which initiate more innovative changes in the spheres of production. Since equality is one of the main objectives, many modern welfare states and since investment in education is recognized as a factor in the development of Human Capital, an equitable distribution of educational opportunities needs to be planned properly with a view to maximize economic equality and social welfare. In other words it is essential to plan education as the great equalizer with a view to move forward towards a just social order.

2. THE PROBLEM

In modern parlance, the economic growth, social welfare and the cultural progress are the ultimate goals of the development policy of the country and to achieve these objectives there are great internal and external challenges. It is only education, by which these objectives can be obtained. Education makes people more effective in these perceptions, due to the gain in knowledge, skills attained through out and understanding and observation of the surrounding makes them more vary for living a better life and the ways and means to raise the quality of life. Education is a fundamental human right and it is the key for sustainable development and peace with stability in the developing countries and an indispensable means for effective participation in the societies and economies in the 21st century which are witnessing rapid globalization. According to the article 45 of the Indian Constitution, Universalisation of the Elementary Education is the constitutional obligation of the Government to provide free and compulsory education for the children up to the age group of 6-14 years.
Economic Equality the idea that each person should have an equal share of economic resources. Economic Equality is a relative word and it can be seen not by looking at a single unit, but by comparing one unit with another. A group of persons have high incomes only in comparison with others who have low incomes; moreover, what is high and low differs over time and among society.

The major objectives of the Economic Equality are.

1. To increase the availability and widen the distribution of the life sustaining food, shelter, health and protection.

2. To raise the levels of living standards including in addition to higher incomes, the provision of more jobs, better education and greater attention to cultural and humanistic. Values, all which serve not only to enhance material well being but also generate individual and national self esteem.

Andhra Pradesh is the first state in India that is formed on a purely linguistic basis. At the time of Independence, the Telugu speaking people (Andhras) were distributed, i.e. 9 in districts in the Nizam’s dominion and 12 districts in Madras Presidency. The Telugu speaking areas of 11 districts were supported from Composite Madras to form the new Andhra State on 1st October 1953 with Kurnool as the State Capital. In accordance with the recommendations of the States Reorganization Committee(SRC) the State was enlarged to include 9 additional districts from the Nizam’s dominion on 1st November 1956 and Hyderabad the former capital of the Nizam’s, became the capital of the enlarged State. Andhra Pradesh thus consists of three distinct regions: the Costal Region made up of nine districts generally known as Andhra, the Rayalaseema region consisting of four districts known as Ceded districts and, the Telangana region consisting of the capital i.e. Hyderabad with 10 adjoining districts.
3. **STUDY AREA**

The Chittoor district of Rayalaseema Region of Andhra Pradesh State is chosen as the Study Area, particularly with reference to Higher Education (University Education) by choosing the teacher respondents (both male and female) from Sri Venkateswara University, Tirupati. The total numbers of respondents' chosen for work are 100 (100 Sri Venkateswara University). Since the researcher is doing research in Tirupati, he has chosen Tirupati, as the study area which is more convenient and also previously such study has not been conducted. The sample that is followed in this study is purposive sample. The teachers in this University were grouped as forward communities (50) and backward communities (50). This gives analysis of the study and gives clear cut information of educational development on the economic and social development of the society.

4. **OBJECTIVES**

The major objectives of the present study are:

1. To examine the relation between education and economic development in general
2. To study the educational development in Andhra Pradesh
3. To investigate the impact of education on economic equality.
4. To evaluate the educational policies of the Government of A.P.

5. **HYPOTHESES**

The following are the important hypotheses

1. Education development is having greater impact on economic development.
2. The educational development in Andhra Pradesh State is satisfactory.
3. The education development increases economic and social equality in the State of Andhra Pradesh.

4. The educational policies of the State Government are giving scope for Privatisation.

6. COLLECTION OF DATA

(I) SECONDARY INFORMATION The secondary information has been collected from various State and Union Government publications and the official records like: Central Statistical Organization (C.S.O. India), Economic and Statistical Organization (Andhra Pradesh), published and unpublished theses; Journals and magazines of various organizations. Annual reports, Half yearly reports, Quarterly reports and also daily news papers.

(II) PRIMARY DATA On par with the secondary data, primary data from the respondents working in Sri Venkateswara University, Tirupati is collected from 50 each both from forward and weaker communities. A well structured questionnaire is prepared and pre-tested before the final collection of the data.

7. TOOLS OF ANALYSIS

Keeping in the mind the major objectives and hypotheses of the study and in order to test the hypotheses various statistical tools like ANOVA and Chi-Square tests.

ANOVA Two way classification

To test the significance of difference in the two kinds of treatments simultaneously, the 'Analysis of Variance (ANOVA)' Two-way classification will be applied with the following null hypotheses:

H0: There is no significant difference between the rows.
H0: There is no significant difference between the columns.
To test the above two hypotheses, the ANOVA table was applied.
### ANOVA - Two Way Classification

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean sum of Squares</th>
<th>F-Calculated value</th>
<th>F-Table Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between the Rows</td>
<td>r-1</td>
<td>SSR (Sum of Squares due to rows)</td>
<td>MSSR = SSR / ( r - 1 )</td>
<td>( \frac{MSSR}{3} = F_1 )</td>
<td>( F[(r-1),(r-1)(c-1)] )</td>
</tr>
<tr>
<td>Between the Columns</td>
<td>c-1</td>
<td>SSC (Sum of Squares due to Columns)</td>
<td>MSSC = SSC / ( c - 1 )</td>
<td>( \frac{MSSC}{3} = F_1 )</td>
<td>( F[(c-1),(r-1)(c-1)] )</td>
</tr>
<tr>
<td>Residuals</td>
<td>(r-1)(c-1)</td>
<td>⋄</td>
<td>⋄</td>
<td>⋄</td>
<td>⋄</td>
</tr>
<tr>
<td>Total</td>
<td>rc-1</td>
<td>TSS (Total Sum of Squares)</td>
<td>⋄</td>
<td>⋄</td>
<td>⋄</td>
</tr>
</tbody>
</table>

Correction of Factor (C.F.) = \( \frac{\text{Grandtotal}}{\text{No. of respondents}} \) \( T^2 \) \( N \)

Where \( N = r \times c \) (\( r = \) rows, \( c = \) columns)

\[
\begin{align*}
\text{SSR} & = \frac{\sum (\sum X^2 r)}{nc} \times \frac{T^2}{N} \\
\text{SSC} & = \frac{\sum (\sum X^2 c)}{nr} \times \frac{T^2}{N} \\
\text{TTS} & = \frac{\sum (\sum X^2 rc)}{N} \times \frac{T^2}{N} \\
\otimes & = \text{TTS} - \text{SSR} - \text{SSC}.
\end{align*}
\]

\( F_1 \) Cal. < \( F \) tab. We cannot reject the null hypothesis. (due to rows)

\( F_2 \) Cal. < \( \cdot F \) tab. We cannot reject the null hypothesis. (due to columns)
It is inferred that there is no significant difference between the rows and between the columns.

Chi-Square Test

\[ x^2 = \sum \frac{(O - E)}{E} \]

Where

\[ O = \text{Observed value} \]
\[ E = \text{Expected value} \]

8. STRUCTURE OF THE DISSERTATION

The entire work of the thesis is divided into Seven major chapters. The First Chapter explains the methodology of the work including the select review of literature.

The Second Chapter illustrates the historical background of the study area.

The Third Chapter studies the relation between Education and Economic Development in general and Developing countries in particular including India.

Educational development in the State of Andhra Pradesh is the subject matter for the Fourth Chapter.

The Fifth Chapter is Educational Development and Economic Equality

Educational development and its impact on Economic Equality in the Study Area is Sixth Chapter.
Seventh Chapter explains the Educational Policies in the State of Andhra Pradesh.

The summary of conclusions and suggestions are given in the Last Chapter

9. LIMITATIONS OF THE WORK

The present work is depending on both primary and secondary data. In the case of primary data the data is collected from the selected respondents working in the higher education particularly in the two universities. Since the respondents belong to the higher education, the accuracy of the data is more and the results are satisfactory. The error possibility is very limited. In the case of secondary data, there is the possibility of higher statistical error and the researcher is no way concerned with that Maximum risk is taken to reduce the error through collecting the data from the scientific and reliable sources.

This study is a micro level study of two universities in Chittor district of Andhra Pradesh State and the results are applicable to the universities of the State of A.P. and not to the universities of other States of the Country, since the socio economic conditions of the university teachers vary from State to State.

10. SELECT REVIEW OF LITERATURE

Alfred Marshal in his book "Principles of Economics" (1930) (Macmillan Company Limited, London) emphasized the importance of education as a national investment and in his view, the most valuable of all capital is that which is invested in human beings.
Adam Smith, stressed the importance of education at various points in his book "The Wealth of Nations", (Cannon ed. Random House Inc.) and he specifically induced the acquired and useful abilities of all the inhabitants of members of the society in his concept of "Fixed Capital".

Mincer, J (1958), (Journal of Political Economy, Aug), formulated a hypothetical relationship between education and income distribution in his work, "Investment in Human Capital and Personal Income Distribution", that the long term effect of education on future earnings is surely the most powerful income distribution. Further he feels that the education can be initiated and encouraged by having the provision of some incentive programmes like lunch programmes, musical instrumental lessons and driver training programmes etc.

Simon Kuznets, in his "Six Lectures on Economic Growth" (the Free Press of Glencoe, New York, 1959), pointed out that capital formation based on fixed capital is deficient. It is essential to include the expenditure on education, health and recreation since they too contribute to economic growth.

Bridgman, D.S, expresses in his article on the "Problems in estimating the Monetary Value of College Education", (Review of Economics and Statistics, Supplement, August, 1960) that those, with more education, may live longer and consequently tend to receive greater life-time incomes, education aside, although it is true that longer life is not synonymous with longer working life. We are led to the presumption that, in general, persons who have obtained more education would have greater earnings than the persons with less education.
Combs, H. (1961), in his paper on "Some aspects of Education Developments", (Paris International University Bureau) state that education provides a person with options, the increased ability to adjust to changing job opportunities. Education may be viewed as a type of private (and social) hedge against technological displacement of skills. New technology often requires new skills and knowledge and those persons who are having more education one likely to be in a position to adjust more easily than those with less education, and to reap the returns from education which the technology has made possible.

Philips, H.M., in his report on "Education as a basic factor in Economic and Social Development" (Report of the African States Conference on Development of Education in Africa, Addis Ababa, 1961) pointed out that "Investment in education is paying itself a very favourable rate on mat terms, and the external economies has greater effect on the efficiency of the economy".


Shaffer, comments in his "Investment in Human Capital" (American Economic Review, December, 1961) as one decide to include under 'Investment in Human Capital' everything that tends to increase man's productivity, the over-whelming part of all expenditures would have to be considered investment. A substantial part of all expenditures for recreation, entertainment and travel and even some expenditure for more conveniences and luxuries would certainly need to be reclassified
on investments to the extent to which they contribute directly or indirectly to the enhancement of a person's productivity.

Schultz, T.W., stated in his paper "Reflections on Investment in Man", (Journal of Political Economy, October 1962), that even when a country possesses the physical capital and resources as those in USA, Production would fall catastrophically, if it doesn't possess sufficient human capital there would be both low output and extraordinary rigidity of the organisation until capacities of the people are raised by investing in them to the required level.

John Vaizey in his book "The Economics of Education" (Faber & Faber Ltd., London 1962) has criticised this approach because it includes, among other things, the cultural values of education and education given to onproducer5, and it is a true measure of the economic conditions of education. But this criticism lacks validity because Schultz is seeking only to measure the "stock" of human capital through education, whether actually utilized or not.

Robert M. Solow in his paper, "The Technical Process, Capital Formation and Economic Growth" (American Economic Review, vol. 52, 1962) presented at American Economic Association has emphasized the difficulty in measuring the contribution of resources devoted to research, education etc., as compared to measuring the contribution of capital formation in the usual sense and also indicated the significance of such activities as research, education and health in the process of economic growth.

An effort to determine in more detail the sources of the growth, has been made by Edward F. Denison, in his paper "The Sources of
Economic Growth in the United States and the alternatives before us" (Supplementary paper, 13, Committee for Economic Development, New York, 1962) "His computed residual", unaccounted for the increase in labour and capital inputs, is smaller because he has tried to identify and measure a number of factors such as education and the effect of shorter hours on the quality of labour inputs. The residual is also broken into a number of components, of which "Advance of Knowledge" and "Economies of Scale" are the most significant in economic growth.

Parnes, H., pointed out in his report "Forecasting Educational needs for Educational and Social Development" (O.E.C.D. Country report, Paris, 1962), that there is close relationship between the amount and the level of economic activity audits sectorial distribution. Most of the models treat occupational structure of the labour force as the technical link between output and educational qualifications.

Adam Curle, in his paper "Some Aspects of Educational Planning in Under-Developed Areas", (Harvard Educational Review, Vol. 32, No. 3, 1962). Pointed out that countries are under-developed because most of their people are underdeveloped, having had no opportunity of expanding their potential capacities in the service of society. The goals of modern societies, which have been already stressed, are political, cultural, social and economic. Human Resource Development is a necessary condition for achieving all of them. A country needs educated personnel in all the fields of its development.

Paul N. Rosenstein-Rodan, Pointed out in his report "Evaluation of a Short Term Development Plan" (Report of meeting of Panel of experts, organisation of American States, Santiago, Chile, 1962), that
some investments in education plan are 'Economic' since they directly promote economic growth, and other expenditure for education and human resource development are primarily "Social Investments" and should be determined residually.

Prof. William C. Bowen, in his paper "Assessing the Economic Contribution of Education - An Appraisal of Alternative Approaches", (Princeton University Press, New York, 1962) stated that the contribution of education to production is called the residual approach and it 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 education and advances in knowledge are usually regarded as the important of the unspecified inputs.

Arnold Harberger.C., in his Case Study "Investment in Man Vs. Investment in Machines" (The case of India, University of Chicago, 1963), express that the foregone earnings of those in secondary schools are likely to be higher than the average earnings of those who stop upon the completion of primary schools and the foregone earnings of College and University Students are likely to be higher than the average earnings of secondary school completers of the same age who have no higher education, purely because of difference in natural ability.

In a study Concerning of the "Role of Education in Development" made by Bowman, M.J. and Anderson, C.A., (Cold Societies and New States (ed,by Clifford, Geertz). Gleanco, N.Y. Press, 1963), showed that income levels at a given time, explain enrollment rates better than educational attainments.
Harbison and Meyers book entitled "Education Manpower and Economic Growth" (Mc-Graw Hill Book Company New York, 1964) explain the Development of human resources on the basis of certain indicators related to economic, social and educational indicators. They have worked out a composite Index of human resource development for 75 countries categorising then into under developed, (17 countries); partially developed (21 countries); semi developed (21 countries) and advanced (16 countries). They have also suggested different approaches for the development of human resources independently suitable to all four categories of the economics.

David C.Mc Clelland, tested his hypotheses in his study "Does Education Accelerate Economic Growth?" (Economic Development and Cultural Change, 14. April 1966) showed that higher educational attainment accelerates economic growth. He found that countries with relatively higher levels of education embodied in the population developed at a higher rate.

Dr.V.K.R.V.Rao (in his book "Education and Human Resource Development" (Allied Publishers, 1966), pointed out that the manpower requirements for future will have to be linked with the availability and efficiency as well as content of the education and training programmes which will make projected additions to the manpower utilization for purposes of meeting the manpower requirements arising from the developmental programmes.

Sen, A.K., pointed out in his paper "Education, Vintage and Learning by Doing" (Journal of Human Resources, Fall, 1966), about the complementary between formal education and informal education
because formal education can be considered as substitutes to a very limited extent and in relation to specific kinds of human capital.

Anne May Hew, in his article, "Education, Occupation and earnings" (Industrial and Labour Relations Review, Vol.29, No.2, January, 1971), stated that the contribution of primary education is higher than that of any other level in rural areas and the secondary education is higher in urban areas.

Schultz, Theodore, W (Ed), (1974) in his book "Economics of the Family : Marriage, Children and Human capital" (University of Chicago Press, Chicago) has analysed the relationship between educational expenditures and growth in income or physical capital formation with reference to United States of America for the period 1900 - 1950. He has shown that "The resources allocated to education rose about three and a half times. (a) relative to consumer income in dollars; (b) relative to the gross formation of physical capital in dollars. Thus, for the U.S.A, The income elasticity of demand for education was 3.5 over the period and therefore, treating educational investments, its rate of return tends to be 3.5 times higher than the investment in physical capital.

Nalla Gounden (1978) in his book "Education, Employment and Earnings" (University of Madras, Madras) has attempted to generate data regarding age-qualification and earning profiles. He has concluded that generally age earning profiles increase with age up to a certain point, irrespective of educational qualifications people with higher educational qualifications people are started at a higher salary. Employers are influenced by candidates educational qualifications in deciding their salary structure people with higher educational
attainments enjoy steeper rise in their earnings. In their case the peak period of their economic activity is reached at a later stage and the span of economic service is also longer.

Yoram Weiss, Arden Hall, Fred Dong, Study on "The Effect of Price and Income on Investment in Schooling" (The Journal of Human Resources, Vol.XV No.4, Fall, 1980), indicated that, a person with low earning ability with high opportunity or with short expected work (or consumption) horizon may find that the marginal costs exceed the marginal benefits even at zero level of investment.

Tilak, J.B., in his paper, "Contribution of Education to Economic Growth in Andhra Pradesh", (Manpower Journal, 1980), stated that the contribution of primary education is higher than that of any other level in rural areas and the secondary education is higher in urban areas.

Veena, D.R., in "Education and Economic Growth" (Ashish Publishing Company, New Delhi, 1987), quotes that "The education is a more important factor for private returns and result of that is a constant upliftment of the economic situation and social justice. But only there is a strong relationship between occupational and educational profiles of the labour force. Recent empirical evidence suggests that entry into various occupations should be considered independently of the variations in the year of schooling.

Rajaiah, B., stated in his book "Economics of Education" (Mittal publications, New Delhi, 1987), that the measure of human capital depends on some explicit and implicit assumptions, the additional to human capital is the result of formal education.
Odeyar D. Hegrade (1992) in his book "Economics of Education - A study of Indian Experience" (Himalaya Publishing House, New Delhi) presented a panorama feature about the contribution of education to economic development, different approaches to educational planning, an international comparison of education, education development in India during the planning are, problems of educational development in India and an evaluation of New Educational policy.

Natarajan, S., in his book "Introduction to Economics of Education" (Sterling publishers, New Delhi 1993) presented a comprehensive view of the theoretical frame work of economics of education, educational planning and finance with particular reference to India. It traces the evolution of economics of education as a discipline, examining its influence in policy making, the various concepts implicit in it and critical references to India the latest trends and statistical information about the economics of education are also presented in the context of the National Educational policy (1986), the New Twenty point programme and the seventh five year plan Targets and achievements.

Encyclopedia of Educational Development and Planning Series "Economics of Education" edited by Laxmi Devi (Institute for sustainable Development, Lucknow and Annual publications Pvt. Ltd., New Delhi, 1998) shows a very clear picture about the investment in education, measurement of cost - benefit in education, production in education economic analysis and planning of education industry, efficiency in education, wastage in education, compulsory education etc. Further: it gives information regarding educational finances in India, mobilization of additional financial resources portion in higher education
Dr. Ozturk in his paper "The Role of "Education and Economic Development A Theoretical Perspective" ("Journal of Rural Development and Administration, Volume XXXIII, No. 1, Winter 2001, Pakistan Academy for Rural Development, Peshawar, pp. 39-47.") mainly the purpose of his is to show the role of education in economic development and the effect of education on labour productivity, poverty, trade, technology, health, income distribution and family structure. Education provides a foundation for development, the groundwork on which much of our economic and social well being is built. It is the key to increasing economic efficiency and social consistency. By increasing the value and efficiency of their labor, it helps to raise the poor from poverty. It increases the overall productivity and intellectual flexibility of the labor force. It helps to ensure that a country is competitive in world markets now characterized by changing technologies and production methods. By increasing a child's integration with dissimilar social or ethnic groups early in life, education contributes significantly to nation building and interpersonal tolerance.

Andrew Betelle in his article "Equality and Universality" (Economic and Political Weekly, Sep. 22-2001, Vol. XXXVI, No. 38) has tried to underline the distribution between equality and universality is important theoretically as well as in matters of policy with the example of education. The author shows the limits to which universality can be taken and beyond which inequalities are bound to play. Some times, it serves the public interest or at least the interest of the most disadvantaged sections better if inequalities are allowed to increase instead of being artificially reduced. A strongly competitive system of higher education may be to the general social advantage rather then one that discourages competition on the ground that it encourages inequalities.
Thorvaldur Gylfason their article "Natural Resources, Education, and Economic Development" (European Economic Review Volume 45, Number 4, May 2001, pp. 847-859(13)) Economic growth since 1965 has varied inversely with the share of natural capital in national wealth across countries. Four main channels of transmission from abundant natural resources to stunted economic development are discussed: (a) the Dutch disease, (b) rent seeking, (c) overconfidence, and (d) neglect of education. Public expenditure on education relative to national income, expected years of schooling for girls, and gross secondary-school enrolment are all shown to be inversely related to the share of natural capital in national wealth across countries. Natural capital appears to crowd out human capital, thereby slowing down the pace of economic development.

Thorvaldur Gylfason and Gylfi Zoega their article "Education, Social Equality and Economic Growth: A View of the Landscape" (Oxford Journals Social Sciences CESifo Economic Studies Volume 49, Number 4 Pp. 557-579) Education has been one of the key determinants of economic growth around the world since 1965. In this paper, they discuss three different measures of education, and consider their relationship to the distribution of income as measured by the Gini coefficient as well as to economic growth across countries. The three measures are: (a) gross secondary-school enrolment, (b) public expenditure on education relative to national income and (c) expected years of schooling for girls. They show that all three measures of education are directly related to income equality across countries. In a sample of 87 countries at all income levels, we also find that more and better education appears to encourage economic growth directly as well as indirectly through increased social
equality and cohesion. Our regression results survive the introduction of regional dummy variables for Africa, Asia, and Central and South America. We argue that the empirical relationship between education, on the one hand, and growth and equality

Philip Stevens and Martin Weale (International Handbook on the Economics of Education edited by G and J. Johnes and published by Edward Elgar 2003) their paper "Education and Economic Growth" provides a survey of work on the link between education and economic growth. It shows that data from the early 20th century are coherent with conclusions about education and economic growth derived from the much more recent past. It also presents an analysis of the role of education in facilitating the use of best-practice technology.

Amit, K.R.Chakrabarty (2005) (The Management Account, August, 2005 Vol.40 No.8, ICWAI Bhavan, New Delhi) in his article "Causes of Dropout and Non-enrolment after Primary Education: An empirical study with special reference to the State of West Bengal", India, discussed the causes of dropout and non-enrolment after primary education. He collected primary data and he comes out with a conclusion that the major causes of the problems are related to the students. More specially and briefly it is directly related to the poverty of the students' family. Teachers are also directly related to the problem. Apart from these, other causes like neighbours, administrators, voluntary organizations and political parties are indirectly related to such a socio-economic problem.

Law Sang Seng in his book "Singapore Education" (Published by World Bank. 2007 Washington) presented a comprehensive view of
Vocational Technical Education and Economic Development: the Singapore Experience

Vocational Technical Education (VTE) systems play a crucial role in the social and economic development of a nation. Owing to their dynamic nature, they are continuously subject to the forces driving change in the schools, industry and society. Often shaped by the needs of the changing economy and local community, the challenges and opportunities are unique. The issue today is not so much about the value and importance of VTE but how to ensure its relevance, responsiveness and value in an increasingly global economy. In this respect, this paper will draw upon and share the Singapore experience. Presented in two parts, the first will trace the various phases of economic development and corresponding strategic VTE responses to meet manpower needs. The second part, which represents the modern history of VTE, highlights the transformation of the Institute of Technical Education (ITE) as a world-class post-secondary institution in Singapore. It is hoped that this Singapore experience will provide some useful insights on the underlying philosophy, policies, choices and rationale for those who are involved in the development of vocational technical education systems.