
AREA I

NEED AND IMPORTANCE OF THE STUDY

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Maimed hands and crippled feet, a general lack of manipulative skill and movement, were considered to be the height of gentility till the other day. How wrong and pernicious was this mentality; was not realised until the profession of the white collar came to be overcrowded. Then it was seen how helpless a creature was the educated unemployed. Mere book-learning is a poor vessel to take one across the high sea of life. The time has come for the educated gentry and their children to put the hand to uses other than mere quill-driving... not for earning a livelihood alone but also for acquiring all-round education. A man may be eminent in book-learning but his education remains incomplete if he has not learnt to put his hands to good and efficient purpose.

- RABINDRANATH TAGORE

(Foreword of Educational Wood Work by
Lakshmiswar Sinha- Visva Bharti, 1925)

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CHAPTER I

NEED AND IMPORTANCE OF THE STUDY

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Introduction

Since Independence India has become the largest democracy in the world. Some of the problems faced by her are as vast as her geographical size or population. The Five-Year Plans are her sincere and organised efforts to make all round progress and development for a real democratic and a welfare State. Though she can honestly boast of some achievements, most of her golden hopes have turned to ashes. Now, having completed more than two decades as a free and independent democratic nation, it is time to look back and learn from the experiences of the past. It is also the time to look forward with courage and confidence. Let it never be said that India which won its political freedom, lost the economic battle to uplift the standard of living of its 540 million people. Today

education is recognised as the most powerful instrument of social, economic and political change, and hence it has to be related both to the long term aspirations of the nation as well as to the task of immediate national development. The Kothari Commission has rightly pointed out that one of the main tasks before the nation is to secure rapid economic development and if this is to be successfully accomplished, education must be related to productivity. The present system is too academic to be of material help in increasing national wealth.¹

Need and Importance of this Study

There is no exaggeration to say that India's failure to modify and change her system of education to suit the needs and requirements of her fast changing society is one of the most important reasons for dissatisfaction among her people in general and educated youth in particular. It is true that the educational system that the independent India inherited was book-centred, designed to suit a minority of the people to run the wheels of the day-to-day administration and maintain law and order. Educational facilities in rural areas were practically neglected. Technological and scientific education was scanty in the extreme. It must be honestly confessed that when independent India had to grapple with the educational

¹Government of India, 'Report of the Education Commission', (1964-66), Government of India Press, New Delhi, 1966, p.5.

problems and re-orient the educational system to suit the changed conditions and requirements of an entire subcontinent, the complexities of the task were many-sided and its magnitude vast. Nevertheless, the task was not impossible.

Today, Indian education needs a drastic reconstruction, almost a revolution. No reform is more important or more urgent than to transform education and to endeavour to relate it to the life, needs and aspirations of the people. It is very high time that India should make education a powerful instrument of social, economic and cultural changes necessary for the realisation of national goals. It is also very urgent because the greater the expansion of the traditional system of education, the more difficult and costly it becomes to change its character. Till now India has attempted to bring about some changes here and there but such half-hearted measures have failed to bring about the desired fruits.

One must boldly confess that in spite of various attempts made in the recent past, the system of education in this country has remained largely bookish and literary. That India's education is predominantly academic and lacks touch with life is not a new finding. The introduction of practical subjects in secondary schools so as to divert them into different walks of life was recommended as early as 1882 by

the Hunter Commission. The Report of Mr.A.Abbot and Mr.S.H. Wood in 1937 advocated for a planned and systematic vocational education in this country. The Secondary Education Commission (1952-53) recommended the establishment of multilateral or multipurpose schools to provide for diversified courses at the secondary stage. The Education Commission (1964-66) has also laid a great stress on vocationalisation of education especially at the secondary school level to meet the needs of industry, agriculture and trade. The system of Basic Education, adopted in 1937, made education craft-centred. Thus, the cry for diversification of courses and vocationalisation of education in some form or the other at various school levels is almost a century old.

It is painful to note that these suggestions and recommendations about vocationalisation of education or even of introduction of teaching of crafts, agriculture and other practical subjects effectively in schools were never systematically and efficiently implemented, and whenever something has been done in this direction, it is so half-hearted that so far it has hardly brought about any desired results. Shri T.S.Avinashilingam, Director of Shri Ramkrishna Mission Vidyalaya, Perianaickenpalayan (Dist. Coimbatore) points out in a note entitled 'Providing Work Experience',¹

¹Government of India, 'Report of the Working Group on Vocationalisation of Education and Work Experience, 1968. (Government of India, Planning Commission, New Delhi, 1968), p.21.

that ' in spite of the introduction of what has been called multipurpose courses about a decade back, the enrolment in the vocational courses at the secondary stage seems to be only 9% of the total enrolment which as the Education Commission has observed is the lowest in the world. This is against nearly 70% in countries like Russia and Japan.' Highly advanced countries like U.S.A. and West Germany have also a very high percentage of enrolment in vocational courses.

Failure to give serious consideration for the effective implementation of this very important aspect of education i.e. relating it to productivity and increasing vocationalisation of education, has created grave problems in this vast country including the growing unemployment of the educated and disappointment and frustration among our youths. It is estimated that the number of unemployed graduates doubled between 1955 to 1962, increasing from 1.2 lakhs to 2.8 lakhs. This rate of unemployment has continued to increase since then. The number of unemployed matriculates is estimated to be about four times the number of unemployed graduates. With the rigid expansion of educational facilities in the future plans, this maladjustment between the supply and demand of educated persons is

likely to assume unmanageable proportions unless effective steps are taken from now onwards.¹ For example, at the end of December 1966, there were 9.17 lakhs of educated persons (educational level of matriculation or above), seeking jobs through Employment Exchange. But this number increased to 15.26 lakhs at the end of December, 1969.

The discontent and frustration among our educated youth is now clearly visible in some of their irrational acts like tearing off Degree Certificates in the University Convocation functions at Indore and Bangalore in recent times before the honourable guests, shouting of slogans 'We want jobs and not certificates' etc. It is needless to mention here about students' violence and indiscipline in almost all the parts of the country.

It is common experience for all good colleges and universities that every year they find it difficult to cope up with the rush of students who desire to enter the universities, perhaps because of absence of other satisfactory alternative. Now-a-days we hear educationalists debating over the desirability and possibility of restricting university admissions only to those who are capable of higher studies

¹Government of India, 'Report of the Working Group on Vocationalisation of Education and Work Experience.' Government of India, Planning Commission, New Delhi, p.32. (From a Note on 'Productive Work in Educational Institutions,' prepared by the Education Division of the Planning Commission at the time of the Chinese Invasion.)

and research. It is believed that providing new opportunities for adequate and useful vocational education and training may attract the attention of many students and parents as a desirable alternative to blind rush for admissions at the university doors without taking into consideration the required intelligence, capacity and aptitude for higher education.

It is now realised that the great need of the hour is to divert our "single track" education of the academic type into a "double track or multi-track" education to provide effective diversified courses which really prepare our high school pupils for life and to vocationalise our education so as to make it job oriented and productive. Dr.V.K.R.V. Rao, the former Union Minister of Education, in his convocation address to the Madurai University students on 1st September, 1969 has said ' The country's educational system should be reorganised in terms of job orientation, work experience and production of skills and attitudes that will make for self-employment rather than merely a search for job.' It is high time that we make our education really terminal so that a large majority of our students would be prepared for and directed to different walks of life. It is in this field of education that India has a lot to learn and lot to do from the experiences of the German system of vocational education and hence this research study has been taken up.

Purpose of this Study

Since the attainment of independence, Indian educational efforts have been directed mainly to three pivotal tasks :

1. To expand education as to provide for free and compulsory education to all children upto the age of 14, and correspondingly to enhance the facilities for education at the secondary and the university stages;
2. To improve the quality of education through the assistance of various agencies at the State and Central levels;
3. To make the system of education a worthy and effective instrument of social and economic reconstruction.

It can be said that India has succeeded to some extent in attaining the first task i.e. the expansion of education at various levels and especially at elementary level. It may be noted that the expansion at the lower primary stage (Class I to IV) has been very rapid in the first three Plans. The total enrolments increased from 14 million in 1950-51 to 37 million in 1965-66 nearly a three-fold increase in 15 years. In 1970-71 this expansion is expected to increase to 54 million. By 1980-81 it will almost reach the target of 80 million. At the higher primary stage (Class V to VII) the total enrolments increased from 3 million in 1950-51 to 13 million in 1965-66 - about a four-fold increase in 15 years.¹

¹Government of India, 'Report of the Education Commission, (1964-66)', Ministry of Education, Government of India Press, New Delhi, 1966, p.164.

At the lower secondary stage (Classes VIII to X) the total enrolments were nearly quadrupled and increased from 1.5 millions in 1950-51 to 6.1 millions in 1965-66. But the unfulfilled tasks are also many. Much delay has already occurred in complying with the Constitutional Directive to provide free and compulsory education for all children between the age of 6 to 14. By 1968-69, only 62 percent of the children in the age-group 6-14 were going to school; 77 per cent in the age-group 6-11 and 32 per cent in the age group 11 - 14. The corresponding percentages for girls were 59 and 19 respectively.¹ The percentage of children going to school in rural areas and from scheduled castes, scheduled tribes and other backward classes is much lower. Some efforts, though not very effective, have also been made for the improvement of education. The contribution of State Institutes of Education (S.I.E.) at the State level and of the National Council of Education Research and Training, (NCERT) at the National level is noteworthy for school improvement programme. The University Grants Commission (UGC) has also striven hard for the improvement of higher education. But it is painfully realized that we have failed miserably to make our education a worthy and effective instrument of social and economic reconstruction and this aspect demands a careful

¹ Government of India. 'Fourth Five Year Plan' (1969-74). Publication Division, Ministry of Information and Broadcasting, New Delhi, 1971, p.111.

consideration. The thoughtless expansion of the present type of education which is not related to life is a positive danger to the stability of the society, and it should not be allowed to be overlooked.

It is surprising that too much has been said in favour of vocational education in India and yet very little has been done in this vital field of education. In theory, now India cherishes a belief in education as a means of heightening productive power. India also feels that any educational policy designed to serve the country as a whole must aim at increased proficiency in all trades, services and strata of work. India has also a faith that if the nation's economic and social vitality is to be improved and if a high level of productivity and high standard of living are to be achieved within a reasonable span of time, proper vocationalisation of education is a must. The German system of vocational education has helped the German people a lot to overcome this mighty problem. Of course, much has been talked about the system of vocational education and training in Germany. Both, high praises and severe criticisms are levelled against it. The purpose of this research study is to draw some lessons and conclusions from the knowledge and experience of the German vocational schools which can help to evolve a detailed plan for vocational

education in India. The important fact that West Germany is a highly industrialised and developed country while India is still an agricultural and developing country, should not be lost sight of while undertaking this research project.

Some Common Features of West Germany and India

(A ground for better understanding)

Compared to the geographical expansion and the number of inhabitants of India, Germany is a country of middling size. In terms of area, it is not even as large as the State of Andhra Pradesh. Indian territory is about 32,68,090 sq.km., while the West German territory is only 2,49,000 sq.km. The population of India is well beyond 54 crores while that of West Germany is about 6 crores. Yet, one of the many things that India and West Germany have in common is that both have a Government based on a system of Parliamentary Democracy. In both the countries, most of the people have faith in international co-operation and world peace. Both of them want to progress with high speed. Of course, today Germany is one of the most advanced industrial countries of the world, while India is still trying to develop its industries but a sound footing has already been laid by our industrial policy during the Five-Year Plans.

After World War II, both India and Germany were divided, though under quite different circumstances. At the time of

Independence, India was divided and Pakistan came into existence. After War, one finds two Germanys - West Germany and East Germany - existing side - by - side with quite different and at times contradictory philosophies and ways of living. Both the countries have faced the massive problems of migration and refugees. Yet there is a difference here also. India and Pakistan will exist as two independent and separate States, while in the long run there might be some possibility of peaceful re-unification of the two Germanies. Even this divided Germany has made tremendous progress. Today, unemployment is practically wiped out, and the shortage is overcome in West Germany. In fact, the present standard of living in Germany is much higher than it was before the war. India is also struggling hard to raise the standard of living of its millions of people, and has received great encouragement and support from friendly nations including West Germany. This spirit of friendship, mutual co-operation and willingness to help each other is the surest way to bring these two great nations still nearer.

It is worthwhile to mention one more point here. No other European nation had made a greater attempt, to discover and understand ancient wisdom of India than Germany. Inaugurating an Indo-German symposium in New Delhi on November 9th, 1969, Mr.K.K.Shah, former Union Minister for Information and Broadcasting

said, 'Philosophical enquiry was the fundamental basis of the genius of the German people, a fact which the famous last words of Goethe, 'Light, more Light,' summed up so completely. Goethe's sensitive spirit responded instinctively to Sanskrit literature. It was the work of German scholars, notably Max-Müller, that enabled India in her turn to rediscover herself.' In recent years German assistance in India's development, especially for industrial advancement is a well-known fact.

Method and Approach

This study is a comparison between the system of vocational education and training in West Germany and in India. Hence a comparative educational approach is thought appropriate in studying the problem of investigation. Yet a word of caution is necessary. West Germany has a sound and effective system of vocational education with a firm footing of almost a century, while in India the problem of effective vocational training is a comparatively recent development. However, it will be possible to draw certain implications and generalisations from the study of vocational education in West Germany which may be useful in emphasising the new educational need of this country regarding well-planned vocational education of a very practical utility. The purpose of such a study is to identify certain similarities and to point out the main differences that exist

in the educational system of both these countries. This may also help to understand the reasons and circumstances for such a difference. Kandel has rightly pointed out that an educational system is largely determined by factors and forces outside the school and the nature of them must be studied to understand the characteristics of an educational system as it is and as it changes.¹

The investigator had the good fortune to visit West Germany from May 1966 to July 1968 and reside in it. During his stay there for more than two years, he had an opportunity to visit some of the vocational schools in West Germany. He had interviewed some of the principals of vocational schools and had good discussion with the vocational teachers in their staff meetings. He had also the opportunity to see some directors of big industries and representatives of the German Government in charge of vocational education and all of them provided very useful information about the German vocational education. A small questionnaire given to vocational pupils of a few vocational schools in Frankfurt also helped to understand their views. Some useful unpublished literature and documents on German Vocational Education were made available from the International Research Centre Library, Frankfurt.

¹I.L.Kandel. 'The New Era in Education. A Comparative Study.' Houghton Mifflin Company, New York, 1955, p.14.

(Internationale Pädagogische Forschung, Frankfurt Am Main). Some Reports and Laws passed by the German Parliament also helped to understand their vocational education system, particularly their apprenticeship system. The literature published by International Labour Organisation (ILO), Geneva, especially its 'CIRF Abstracts' have proved very useful in this study.

In India too, free use is made of the Reports and documents published by the Government of India, Reports of the various Commissions on Education and other literature available. Visits and interviews along with questionnaire are also employed to study Indian vocational and technical institutions like I.T.I. and other multipurpose schools.

Scope and Limitations

In this study, an attempt is made to understand the system of vocational education and training in West Germany and try to find out how it can provide some guidelines to reshape the vocational education in India. In fact, India has just made the beginning in this field with little more seriousness and the knowledge of German Vocational System of education can be used profitably in setting up a sound vocational educational system in India.

We, no doubt, accept the fact that no country has any 'ready made reforms' to offer to any other country for the solution of its problems. The reforms - whether social, economical or educational - take place under certain conditions and environment and these circumstances may differ from country to country. So each nation has to adjust its educational system to fulfil the requirements of the society and to achieve its social, economic and educational goals. Yet there is no doubt that India has still a lot to learn and far more to act from the experiences of highly industrialised and progressive countries and West Germany is, of course, one of them.

The comparative study undertaken in this research project is referred to West Germany or the Federal Republic of Germany only. So all references under the name 'Germany' imply West Germany only.

The aim of the present study, is not to go into details about the professional education like medical or teachers' colleges, and a law or engineering courses but to limit it to the vocational education and training fundamental for useful employment after completion of primary or secondary education. Thus, the study is restricted to only vocational education at the pre-university level. In our country,

professional education at the university level is available to some extent. The admission capacity in engineering and technological institutions increased from 13,824 in 1960-61 to 25,000 in 1968-69 at the degree level and from 25,800 to 48,600 at the diploma level. What we need today is a planned programme for providing adequate facilities for vocational education and training corresponding to the varied needs of the society. Hardly three percent of India's workers working in various fields of activities like agriculture, mining, manufacturing, construction, trade, commerce, transport and other services are matriculates and above. By 1985-86, the total of these educated workers (matriculates and above, will rise to just cover 11 percent. Hence we shall have to think about the facilities of vocational education and training for all workers who will be undermatriculates, or who will receive only primary education.

DEFINITION, NEED AND PURPOSE OF VOCATIONAL EDUCATION

Definition

If this title is construed freely, 'any educational activity that would prepare one to earn a living could be labelled vocational education.'¹ Thus institutions of higher learning, such as teachers' colleges, medical colleges and

¹Monroe Walters. (Ed.), 'Encyclopedia of Educational Research,' The Macmillan Company, New York, 1950, p.60.

engineering schools and colleges etc. would be classified as sources of vocational education. At the other extreme of the educational ladder, we would find listed as vocational schools, occupational and opportunity schools whose chief objective is to prepare an individual to earn a living at simple routine jobs.

According to another definition, 'Vocational education in its broader sense refers to life-experiences, education and training, both direct and indirect, that fit one to carry on a socially useful vocation. In a more restricted sense, vocational education refers to specific, functional training for useful employment.'¹

Even apprenticeship training is regarded as a part of vocational education as apprenticeship, one of the oldest training techniques, produces skilled workers of excellent quality. It is a unique method which combines classroom instruction and on-the-job application of the principles learnt.

It is logical to think that vocational education in its broadest sense pertains to all occupations and to all the people. But the aim of the present study is not to go

¹Rivlin Harry N. (Ed.) 'Encyclopedia of Modern Education'. The Philosophical Library of New York, 1943, p.513.

into details about the professional education like medical courses, law courses, and engineering courses etc. provided by the universities, but to limit it to the training of apprenticeship and to specific fundamental training for useful employment.

The purpose of vocational education is to fit persons for useful employment. Two distinct groups of people are served by this programme :

- (1) Those who have begun work, and
- (2) Those who are preparing to work in various occupations.

The vocational programme should offer opportunities to all youth and adults at appropriate levels in all occupational fields, including highly technical work of less than professional grade. It should be sufficiently flexible to meet the needs, not only of the youth seeking occupational preparation as part of their school education, but also of persons who desire full-time training, employed persons who desire pre-employment training for one field while working in another, and those who desire training for upgrading. The function of the vocational school is to prepare not only for an initial occupation but for the further advancement of the worker as well. This requires broader vocational education and more widely extended basic training for the manual trades. Today vocational education is considered as part of the foundation of man's creative and progressive development.

The Need for Vocational Education

The following opinion expressed by the Report of The Commission on National Aid to Vocational Education in U.S.A. in 1914, stands good for our country even today after more than fifty seven years. The Report says :

There is a great and crying need of providing vocational education to conserve and develop the resources of the nation; to promote a more productive and prosperous agriculture; to prevent the waste of human labour, to supplement apprenticeship; to increase the wage earning power of our productive workers; to meet the increasing demand for trained workmen and to offset the increased cost of living. Vocational education is, therefore, needed as a wise business investment for our nation, because our national prosperity and happiness are at stake and our position in the markets of the world cannot otherwise be maintained.¹

Today, we all agree that every citizen should have the opportunity to attain occupational competencies compatible with his or her abilities and interests. The people who have the need, desire and ability should get all the opportunities for vocational education. The size and scope of the vocational education programme should meet the qualitative and quantitative needs of the nation for trained workers in

¹ 'Report of the Commission on National Aid to Vocational Education,' Part I, Washington, Government Printing Office, 1914.

the time of rapid technological change, economic growth, and international challenges.

Vocational education has been thought of as a 'wise business investment' both for the nation and for the individual, because it leads towards a better standard of living for the individual, and this in turn becomes a gain for the society as a whole.

An extract from the provisions for the vocational schools of the Rheinland & Pfalz in West Germany shows :

The Vocational Schools have the task of promoting professional training, of enlarging and deepening general knowledge and of educating students to being morally valuable members of the society, filled with love for their professional activities and conscious of their responsibilities as citizens of a democratic State.

It may be seen from this passage that the Germans are not satisfied by merely giving vocational training to the individual. They also want him to be trained for conscious and responsible citizenship.

The French Act No.66 - 892 of 3 December 1966 on the orientation and programme of vocational training clearly States that :

Vocational training - both basic and further training - is a 'national obligation'. The Government, the local communities, public

and private educational institutions, associations, trade associations and professional bodies, trade unions and family organizations and undertakings shall work together to ensure it.

This shows how mighty the task of vocational training is. A combined effort of all the forces and all the sources of the society is needed to achieve this valuable goal.

The Government of India has also emphasised that, 'The wealth and prosperity of a nation depend on the effective utilisation of its human and material resources through industrialization. The use of human material for industrialization demands its education in science and training in technical skills. Industry opens up possibilities of greater fulfilment for the individual. India's enormous resources of manpower can only become an asset in the modern world, when TRAINED and EDUCATED'.¹

It is a fact that the economic and political future of a country depends on national investment in education, and consequently in vocational training which is an integral part of education. Society must accept collective responsibility for vocational training in the same way as it has accepted the responsibility for elementary, secondary and higher education.

¹Government of India, 'Science Policy Resolution,' 4th March, 1958.

Vocational Education is also a life-long Process

One should not forget that vocational education, like education, is a life-long process and is not something that takes place only in the vocational school.

Gordon W. Allport observes :

A man whose motive is to acquire learning, or to perfect his craft, can never be satisfied that he has reached the end of his quest, for his problems are never solved, his skill is never perfect.' The quest for perfection is life long.

Attitude towards Work Changes Very Slowly

Again in some of the developed countries, vocational education was regarded as 'those knocks in education' at one time, but today it is accepted as integral, essential and important part of education. No industrially developed country or a developing country that wants to be an industrial one can ignore vocational education or can afford to give less importance to it. But the fact still remains that attitude towards work changes much more slowly. Everywhere one still finds people who measure a man by the kind of work he does, rather than by the quality of performance whatever his work may be. In India, thanks to the gigantic efforts of Mahatma Gandhi, some people have learnt to respect the dignity of labour; but the vast majority of people still

look down upon those who are supposed to do lower type of manual labour. The problem of castes still grips the minds of millions, specially in rural areas. In Germany most of the people are proud of whatever type of work they do and on the whole all those who do their work honestly are respected. Yet we cannot say that the society is free from the ideas as 'higher type of work' or 'lower type of work'. This difference exists everywhere, of course, there is always a difference of degree.

Shift from Strong Back to the Alert Mind

Science and technology have brought many changes in the techniques of production. As a result of that some sort of vocational training has not only become a necessity but also indispensable. Consequently today, vocational education has undergone a tremendous change and has become a practice what was intended to be a theory. The most important change that we notice today is that the emphasis has shifted from Strong Back to the Alert Mind. Today we need workers who are not only strong, and physically fit but also those who are active and capable of using their brains as well. This is true not only in the industrial field but also in all the fields of activities and productivity including agriculture, which is the most urgent problem of India. Let it not be

forgotten that in the world of today, the 'agriculture' is increasingly becoming 'Agro-business', and Indian farmers need not only strong arms and legs but also alert minds to understand the science of agriculture more thoroughly.

Vocational Education has a Strong Social Bearing

Vocational education has both social and economic importance. Its purposes are new and must continue to be close-linked to the needs and economic well-being of the society. If society wants most of the members to do something concrete, actual, finite and real, it should also provide wide opportunities for efficient training by providing sound system of vocational education.

Vocational education has a strong social bearing. It is concerned with the people; people who are going to be the members of the labour force; people who produce goods and services required by the society; people who will feed millions of other people. Improving the ability of the individual to produce and compete effectively is directly related to the improvement of the national economy. This is the foremost thing to which India should concentrate today.

A good programme of vocational education also helps the individual to consider himself a useful and respected person. It can also develop the initiative and sense of

responsibility that are basic to preparation for new jobs. Hence not only vocational training but also further training, specialisation and retraining should also become very important aspects of the national training system.

It is ^a well known fact that a person who wants to practice medicine must possess something more than a bottle of iodine. In the same way a person must have more than a hammer to practice carpentry. Today people are tempted to visit only a competent dentist or would like to invite only a competent plumber. Thus, in the working world of today, most occupations are setting higher requirements for those who desire to enter and hence vocational training has become indispensable. Again there is more and more demand for trained workers and there is also a general tendency to reject the untrained workers. These facts also point to the importance of vocational education.

Democracy and Vocational Education

India is proud to be the biggest democracy in the world. But democracy should not only exist, it should grow and develop. Day by day, it should become stronger. This is possible only if it provides equality of opportunities to all. It must provide all necessities of life - physical, mental and spiritual. It should also provide all opportunities

for growth and development according to the capacities of the citizens. It should provide chance for productivity and creativity according to their abilities. Here comes the role of vocational education and training.

Again in a democracy, as Franklin J. Keller points out: People must work together. They must believe in each other's work because they feel they are serving others and others are serving them. They must be common sharers in the task of making life livable. Vocational education assumes and works upon the principle that every individual is worthy of preparation for an occupation and that every occupation is worthy of the individual who pursues it, whether it be manual, intellectual, or emotional, thus arriving at the 'dignity of labour' by action rather than by parchment.'

The same author continues -

It is notable that striving towards common end through association takes place after as well as during working hours. Have a drop on any discussion during a social gathering of vocal men and women and what do you hear? Talk about their work and their fellow workers, reminiscences, prognostications, and a good measure of criticism. Workers live their work at all hours. They dream about it. AN OCCUPATION IS THE MOST OCCUPYING OF ALL HUMAN ACTIVITIES. When it is freely shared with others, it is the most democratic.¹

¹Keller, Franklin J. 'Principles of Vocational Education.: The Primacy of the Person'. Boston: D.C. Heath & Co., 1948, p.6.

VOCATIONAL EDUCATION AND GENERAL EDUCATION

Vocational and General Education are not Hostile Rivals

It must always be remembered that vocational education is not offered in lieu of general academic education, but grows out of it, supplementing and enhancing it. Vocational education does not want to compete with the goals of a truly humanistic education; on the contrary it embodies some of the latter's oldest and soundest principles - learning by doing, preparation for life, and the integration of education with the actual social process. Vocational education should only be considered as an integral part of the total education programme and should provide opportunities according to interest, aptitudes and abilities of the pupils.

The Germans believe that professional and general education are not two factors independent of each other. There is an easily demonstrable and fundamental relation between the two; the foundation is laid by the elementary education received in Volksschulen (Primary Schools) on which the specialised education is built up, and only by completing both these types of education is a kind of universal education acquired, which represents the top level.

The aim of education is to prepare an individual to become an expert both in some particular vocation or art and in general art of the freeman and the citizen. Not even the most ardent advocate of vocational education would deny

the value of general education in preparing youth for citizenship and in participation in cultural life.

Green^e viewed liberal education and vocational training as 'two essential and complementary aspects of the total programme for the total preparation of the individual for his total life,' and not as, 'hostile rivals nor as mutually exclusive enterprises.'¹

The best foundation for entering upon a vocational education programme is basic general education. Skills in reading, mathematics, and other general education fields are essential for acquiring specific vocational competence. It is, therefore, essential for the schools to increase their efficiency in teaching the fundamental school subjects to all students. It has been observed that the early school leaver who has not acquired the basic skills is not only unable to find satisfactory permanent employment but is also greatly handicapped in acquiring specific vocational training as an adult.

It would be improper for the vocational schools to think that they should serve nothing but vocational goals. Such a narrow utilisation approach may help to solve certain immediate teaching problems, but it does not open the

¹Greene, Theodore M. 'A Liberal Christian Idealist Philosophy of Education.' in *Modern Philosophies and Education*, 54th Year Book of the National Society for the Study of Education, Part I. Chicago: University Press, 1950, p.119.

student's mind to the vast complex of which his work is a part, and hence a broader interpretation of related instruction is necessary. India does need a more efficient system of occupational training, but she also needs expanded moral, cultural, political and economic education. Indeed, it is the characteristic of all good education to aim at the development of balanced personalities - men who can play as well as work, consume as well as produce, appreciate as well as create.

Just as some educators believe that vocational courses should not over-shadow or water down the programme of liberal courses, it is also necessary to see that the liberal or academic courses should not over-shadow or water down the vocational courses. Every effort should be made to keep a safe balance between these two important phases of education. Both are needed. One to ensure that youth will have the ability to secure and hold jobs, which is necessary for self-supporting economy, the other to insure that they have the proper understanding of their rights and duties as citizens in a democratic state.

Let it be constantly kept in mind that a few years later, all the individuals who come out of vocational schools, will come into possession of the highest privilege which the democratic state has to offer - THE FREE VOTE. Only those who

had the opportunity during their professional training, of acquiring a certain knowledge of the current political issues in order to be able to pass judgments on them, can make adequate use of this privilege. How they will use it will largely determine the political course of a nation and that is precisely what makes the whole problem so important.

Greene offered the following solution :

What is obviously needed is a truly liberal academic community in which study of art and typewriting, of philosophy and accountancy, of theology and medicine, of pure and applied sciences are, though admittedly very different, judged to be equally honourable and valuable in their several ways.¹

Undoubtedly, all occupations must be developed upon a basis of general education achievement, which includes a wide variety of school experiences. We expect the historian and the banker to contribute as effective citizens. Their occupations are different and equally honourable, but their fundamental obligations as citizens are the same.

In short, the reinterpretation of the ever-recurring interest in vocational preparation should be a current pressing concern for our educators, economists, and statesmen. It may well be that a workable fusion of the

¹Greene, Theodore M. 'Liberal Christian Idealist Philosophy of Education,' in *ibid.*, p.119.

equal value of both, will be a major contribution to a new concept of democracy in education.

Vocational Schools - Not a Dumping Ground for Backward Children

Too often, the vocational schools have been regarded as a dumping ground for children whose academic records in the elementary grade show no promise of success even in academic fields. This is really unfortunate. Obviously the choice of vocational school should not be based on the negative assumption that the student is not good academic material, but rather on the grateful recognition that he has, in addition to a capacity for mental development, an aptitude for manual and technical work.

Again, whenever some people think about vocational schools, they at the same time think about a majority - 'those who will go to work' and a minority - 'those who will go on.' This is also perhaps not a correct thinking. Of course, the origin of vocational education might be based on such distinction but today such ideas are fading away rapidly. Today vocational training and education is a positive need of the society. Research in countries like U.S.A. and West Germany has demonstrated that raising the level of skill of the population by systematic training plays an important part in the increasing productivity of the nation.

In this context, expenditure on vocational education constitutes an investment in manpower, yielding 'human capital'.

Vocational Education - A Great Help to Disadvantaged Youth

Vocational schools can serve best the pupils who are not likely to gain much from the traditional academic work. They can also help to improve the troublesome problems of the school. The student who cannot fit into general pattern of studies becomes a troublesome problem for the school. Education in general has failed to help the disadvantaged youth. Now the vocational schools, well aware that these students want, to go to work, are attempting to meet the challenge. But vocational schools alone cannot solve this mighty problem. It involves co-operation on the part of all. Several areas of education must combine their efforts and work co-operatively if effective action is to result. Really something should change for the students who are not at ease in the class-room, with the curriculum.

Says a high school psychologist :

I sometimes think it is the fault of the whole educational system. Much, too much importance is put on classical book learning and on subjects that will not be in any way useful to the student, unless he goes to colleges. A great many youngsters are bored stupid by the usual courses in high

school. Why force them to study things that do not mean anything to them? I think a truly dynamic system would appeal to and help both the non-academic and academic types. The teenagers who are not interested in book learning should be detected in grammar schools and given a completely different kind of education in high school.¹

The vocational schools are also confronted with another type of serious problem. Sometimes they seem to attract a greater number of pupils with an unstable family background. One pupil in six requires a special educational effort on the part of a school to compensate for neglect at home. Thus the vocational teachers have different types of responsibilities and sometimes burdens too.

Vocational Training - a Joint Responsibility

It is not sufficient (or even desirable) to place the whole burden of providing craft skills adequate for our industrial needs on the vocational schools alone. This is a mighty job and must be shared by various other agencies too. The industries must lend greater help, support and co-operation to this type of programmes. Training is always a joint responsibility. Both the schools and industries have their specific contribution to make and each needs to understand

¹Brossard, Chandler. 'Teen-ager without a Job,' Look, February 27, 1962, pp.31-32.

and support the work of the other. (Too often, schools teach theory which bears no relation to current industrial practice, or factories make no attempt to give broad experience to support the theory learnt at schools). Moreover, industry must itself assume its share of the training task, both by improving the character of the instruction and by expanding apprenticeships and the less formal systematic training programmes.

There is also the urgent need for close co-operation between the vocational schools and practical professional training. The following two certain and undeniable factors should not be lost sight of :

1. The vocational schools have a mission which cannot be taken over by any other educational institution; it accompanies the professional training and at the same time goes far beyond it.
2. If this mission is to be fulfilled, the closest co-operation is needed between vocational schools and practical professional training. This means to be a difficult task but it must be achieved.

Sometimes the vocational schools consider themselves autonomous and self-sufficient institutions, thereby belying their own peculiar character as schools accompanying practical professional training; but often the work does not find the necessary understanding among those for

practical training in commerce, trade and industry. What must be achieved at all costs is that as a result of this tug-of-war the young people stand with their feet in two camps, each indifferent to the other or even competing between themselves. The combined efforts of all forces are required in order to ensure the completion of the task of educating working youth.

Need for Organised Transfer from School to Industry or Enterprise

The task of vocational schools cannot be called complete unless they manage and help in transferring youth from schools to industries after completion of their training. The whole task of occupational training would be greatly facilitated by the organised annual transfer of school-leaving youth into industry. Such a project would, of course, be a formidable undertaking, and could be accomplished only with the co-operation of schools, managements and organised labour, working through the medium of the advisory boards. It would, however, go far towards solving the serious educational and social problems of launching youth on an educational career without an interruption of years spent in dead-end jobs or possibly without employment. It would also enable the worker to derive the fullest advantage from his vocational preparation, and to develop

his abilities and knowledge during the years when his flexibility and capacity for learning are at a peak, and beyond that, the probability of a promising job immediately after completion of schooling would give meaning and inspiration to vocational education and training in school. Such arrangement of organised transfer has social, economic and psychological advantages over and above the educational ones.

Summing up

To sum up, let it always be remembered that the two great assets of a nation which enter into production of wealth, whether agricultural or industrial, are natural resources and Human Labour. The conservation and full utilisation of both of these depend upon proper vocational training:

In Short :

1. Vocational training is needed -

- to conserve and develop natural resources;
- to prevent waste of human labour;
- to provide a supplement to apprenticeship;
- to increase wage earning power;
- to meet the increasing demand for trained workmen;
- to offset the increased cost of living;
- to secure a wise business investment.

2. Vocational education or training is given -

- to youth who are getting ready to enter a vocation of their selection;
- to youth who have entered employment and who seek to advance in the employment of their choice;
- to adult workers who wish to increase their efficiency in the vocations they follow; and
- to youth and adults who need readjustment or conversion training because of unemployment brought on by technological change, or by change resulting from war or post-war adjustments.

3. The development and organisational structure of the public vocational training system should be based on the following principles :

- all young people desiring such training should be able to have it;
- the system's output of young trained labour should approximate the quantitative and qualitative needs of industry;
- it should be organised in such a way that it facilitates easy adaptation to technical and other changes in industry and promotes labour mobility;
- it should be flexible enough to allow for variations in the training to suit the trainee's individual aptitudes and interests;

- It should lay the basis for more advanced training and retraining.

4. A truly comprehensive system of vocational education and training should include the following elements:

- Elementary school education, including a few hours weekly, of manual work or practical arts;
- Four years of in-school vocational education, starting with an exploratory 9th year offering work of a pre-vocational character, and providing in the next three years an increasingly specific education and training in trade school, vocational technical high school or technical high school;
- graduates of these schools should be then enabled to make an easy and systematic transfer to apprenticeship or some less formal type of in-employment training;
- all apprentices should continue to receive supplementary instruction, while other trainees should also have access to such instruction. Beyond that, any worker should have the opportunity to obtain trade extension training in part-time or evening classes;
- full-time training of a specialised and advanced nature should be available in technical institutions.

5. By 1975, the Indian labour force - those working and seeking work - will be approximately 243,734,000 people. Moreover, Thousands of young workers will ^{enter} continue to the labour force every year. Thousands of young women will also enter the labour force. And again, thousands of youth from the so-called backward

and scheduled tribes, who are utterly neglected till now, will demand their share in the labour force and it would not be possible to ignore them any more without the danger of stability to the society. Under the circumstances it is specially important that our educational system should soon adapt to the needs of a changing economy. Not only millions of youth but also thousands of women, mothers and widows will also require marketable skills. The nation should get itself prepared for this mighty task before it is too late.

6. Today we have to think seriously about the vocational education and training programme which must :
 - Offer proper and adequate training opportunities to the millions of non-college youth who will want to enter the labour market soon;
 - provide training or retraining to the millions of workers whose skills and technical knowledge must be up dated, as well as those whose jobs will disappear due to increasing efficiency, automation, or economic change;
 - meet the critical need for high-skilled craftsmen and technicians through education during and after the high school years;
 - expand vocational and technical training programmes and national economic needs;
 - make educational opportunities equally available to all, regardless of race, sex, scholastic aptitudes, caste, religion, or place of residence;

- provide full facilities for young people, well-trained to enter employment in agriculture, the skilled trades, business, industry, merchandising, service occupations, and technical and health fields, as well as home making.
7. Today the people of this country stand squarely and hopefully on the threshold of an era in which the average standard of living will reach a new and high level. Made freshly aware of the country's potential strength by the industrial, technological, and all-round advancement by our five-year-plans, they envision a future in which the comfort and economic security will be the rule and not the exception. A reassuring prospect, to be sure, and yet not beyond the realm of possibility if the widest use of our rich natural resources is supported by the full development of the productive power of the entire population through proper vocational education and training.
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