



Stonebridge

INDUSTRIAL SOCIOLOGY

DIPLOMA COURSE

Sample Pages

INDUSTRY AND EDUCATION

INTRODUCTION

Education prepares individuals for roles in industry.

Industry and education have a reciprocal role in that both institutions are interdependent. The educational institution prepares individuals through training for roles they are to play in industry. At the same time, industry itself has training programmes designed to improve the skills and abilities of its members. These include apprenticeship systems and other on-the-job training facilities common in several industrial organizations.

THE INFLUENCE OF INDUSTRY ON EDUCATION

Industry can influence educational organizations regarding subject matter to be taught.

The most fundamental manner in which industry affects education is through the choice of subjects taught at schools, technical training centres, universities and other educational mediums. With a rise in the process of modern industrialization, industry influences the subject matter taught at educational organizations with a view to filling a variety of jobs or needs in the industrial sector.

Education prepares individuals for job roles.

There are several types of educational mediums through which individuals are prepared for a job-role. However, the system of preparing individuals for a job-role is justified or legitimized in that individuals are inculcated with the philosophy of occupational rewards for educational qualifications. In Britain (and several other societies) the emphasis on educating individuals for job-roles, sometimes at the expense of the humanistic approach, has been criticized. There are differences of opinion relating to job-role orientated education and the protagonists of non-vocational education.

TECHNICAL EDUCATION

Technical training has not always been part of preparing candidates for industry.

After World War II there were changes in requirements, i.e. skills.

Although technical education is very much part of the modern training process of preparing candidates for industry, this has not always been the case. During the nineteenth century, industry was apathetic and often hostile to technical education due to the low status ascribed to science as a whole. In addition, most industries in the nineteenth century were of a non-scientific nature; hence the scepticism shown by industry to technically-trained personnel. However, with a change in the pattern of industrialization, particularly in the post-Second World War period, it became increasingly evident that trained managerial and other skills were needed in the ever-expanding industrial sector. Several variables contributed to this change of attitude on the part of industry, including the introduction of scientific methods of production to meet the demands, export markets and lively competition for these markets between the more highly industrialized nations of the world.

Technical training has become highly sophisticated in industrial and post-industrial societies.

Technical educational training has become highly complicated and takes place in a variety of educational organizations. There are several types of technical organizations, some of which have developed in complexity and sophistication to the extent that they have the status of universities. One such organization is the Massachusetts Institute of Technology (MIT) in the United States. There are also other forms of technical training organizations which cater for all levels of industry and commerce.

The contribution of on-the-job and in-service training

The question has been raised as to the degree of training that technical organizations should give, compared to on-the-job or in-service training given by several industrial organizations. A cardinal issue to be taken into account is that only large firms or industrial organizations which have the financial resources are able to provide suitable training for these needs without resorting to technical training organizations outside their sphere. The argument for technical training organizations holds true though, particularly for industrial organizations that are too small to cater for their own training needs.

Arguments against technical training

There are several arguments for and against the technical training organization, but Peter Venables (1974) argued that technical colleges should resist the attempt to become “appendages of industry”. Industrial training, he argued, should be part of the total learning process.

The importance of university training as a pre-requisite

Another argument promotes the fact that the theoretical basis of industrial training has become so complex that a university training level will become the pre-requisite for entry into the upper echelons of the industrial sector. This, it is argued, will reduce the importance or status of apprenticeship and in-service or on-the-job training, making upward mobility in the industrial structure more inaccessible to those who do not have university training.

THE INFLUENCE OF EDUCATION ON INDUSTRY

In-service training indicates the influence of education on industry.

The fact that on-the-job training does take place with greater frequency may be an indication of the profound influence education has on industry. At this stage it is pertinent to delve into some of the training facilities within the industrial sector in order to determine to what extent education has influenced industry.

APPRENTICESHIP

Some negative and positive factors relating to apprenticeship systems

The system of apprenticeship is rooted in the medieval tradition of the guild system. Under the guild system a craftsman had a trainee (journeyman), or several trainees, under him and operated under a paternalistic system. However, within the modern context, paternalism has virtually vanished and the apprenticeship system has flourished in various forms, dependent upon the society or industrial context within which it is undertaken. There are a variety of ways in which an apprenticeship can be undertaken, but recently legislation has been introduced in various societies to control and guide this form of training. Britain introduced the Industrial Training Act in 1965. However, there is no legal obligation on the industrial organization to provide apprenticeship training. In fact, the apprenticeship system has come in for criticism from several interested parties, including Paterson (1966). Paterson contended that the apprenticeship system created some negative characteristics such as a 'master-servant' relationship and was tantamount to the 'exploitation of the young'.

Another person who was critical of the apprenticeship system was Williams (1957). His findings, based on research in Britain, indicated that one of the prime weaknesses of the apprenticeship system was that since there were not enough skilled teachers (craftsmen), the apprenticeship learning process was inferior to that given in a technical college or organization. Ethel Venables (1974) conducted an inquiry among 2,000 men over twenty-one years of age in 1966. She found that the majority of those interviewed felt apprenticeship, as an educational experience, was cheaper and worse than that given to their more privileged contemporaries, i.e. those who attended formal technical colleges.

DAY-RELEASE AND SANDWICH COURSES

Some diverse forms of job training

In most advanced and developed societies the apprenticeship process is amalgamated with an academic teaching programme to improve or supplement what is learnt in the work situation. This may involve several forms such as releasing an apprentice for a day, or a number of days, for the pursuance of study at a formal academic institution such as a technical college.

There are various levels of training leading to professional, technical and skilled craft occupations. However, for purposes of understanding this portion of the theme, account must be taken of the difference between the 'day-release system' and the 'sandwich course'. In the case of the day-release system, employees are given the 'privilege' of attending formal academic training for one or two days a week and are paid the normal wages. However, the day-release system varies among industrial organizations depending on the skill-needs of workers and the amount of on-the-job training that may be offered.

Sandwich courses, on the other hand, provide longer periods of full-time study at technical colleges, universities, etc, and longer periods of on-the-job training at industries over a period possibly spanning a number of years.

MANPOWER AND EDUCATION

The need for training manpower

In the earlier part of the twentieth century the workforce in the industrial sector was divided into the following categories: unskilled manual, skilled manual, commercial and clerical personnel. After the First World War developments in the industrial sector necessitated the move towards the training of the unskilled workers (who formed the bulk of the workforce), resulting in training that is now leading towards the model of the semi-skilled technician.

Dangers of over-specialization

However, with the introduction of mechanization the training patterns have had to alter accordingly. Several consequences may result, but the main one concerns the possibility of over-specialization, i.e. an individual may be trained only in one sphere (specificity) and may be unable to undertake another task without the necessary retraining.

Financial assistance for training

Regardless of the positive or negative effects of the industrial training process, there is a tendency on the part of industries and other forms of commercial undertakings to provide financial assistance for their employees' children. This is done either through direct subsidies or through insurance and other schemes, which allow the workers' offspring to attend public schools. Universities have recently also benefited from assistance from the private sector, particularly in developing the sciences and technical and managerial educational programmes.