

# INTERNATIONAL BENEVOLENT RESEARCH FOUNDATION (IBRF)

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**Non Formal Vocational Education  
For Youth Empowerment  
Envisaged by the  
IBRF**



## **International Benevolent Research Foundation**

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## Non Formal Vocational Education for Youth Empowerment Envisaged by the International Benevolent Research Foundation (IBRF)

Vocational Education is an education that prepares people for specific trades, crafts and careers at various levels from a trade, a craft, technician, or a professional position in engineering, accountancy, nursing, medicine, and other healing arts, architecture, pharmacy, law etc. Craft vocations are usually based on manual or practical activities, traditionally non-academic, related to a specific trade, occupation, or vocation. It is sometimes referred to as technical education as the trainee directly develops expertise in a particular group of techniques. In the UK some higher technician engineering positions that require 4-5 year apprenticeship require academic study to HNC / HND or higher City and Guilds level.

Vocational education may be classified as teaching procedural knowledge. This can be contrasted with declarative knowledge, as used in education in a usually broader scientific field, which might concentrate on theory and abstract conceptual knowledge, characteristic of tertiary education. Vocational education can be at the secondary, post-secondary level, further education level and can interact with the apprenticeship system. Increasingly, vocational education can be recognised in terms of recognition of prior learning and partial academic credit towards tertiary education (e.g., at a university) as credit; however, it is rarely considered in its own form to fall under the traditional definition of higher education.

Vocational education is related to the age-old apprenticeship system of learning. Apprenticeships are designed for many levels of work from manual trades to high knowledge work.

However, as the labour market becomes more specialised and economies demand higher levels of skill, governments and businesses are increasingly investing in the future of vocational education through publicly funded training organisations and subsidised apprenticeship or traineeship initiatives for businesses. At the postsecondary level vocational education is typically provided by an institute of technology, university, or by a local community college.

Vocational education has diversified over the 20th century and now exists in industries such as retail, tourism, information technology, funeral services and cosmetics, as well as in the traditional crafts and cottage industries.

### VOCATIONAL EDUCATION IN AUSTRALIA

In Australia vocational education and training is mostly post-secondary and provided through the Vocational Education and Training (VET) system by registered training organisations. This system encompasses both public, TAFE, and private providers in a national training framework consisting of the Australian Quality Training Framework, Australian Qualifications Framework

and Industry Training Packages which define the assessment standards for the different vocational qualifications.

Australia's apprenticeship system includes both traditional apprenticeships in traditional trades and "traineeships" in other more service-oriented occupations. Both involve a legal contract between the employer and the apprentice and provide a combination of school-based and workplace training. Apprenticeships typically last three to four years, traineeships only one to two years. Apprentices and trainees receive a wage which increases as they progress.

Since the states and territories are responsible for most public delivery and all regulation of providers, a central concept of the system is "national recognition" whereby the assessments and awards of any one registered training organisation must be recognised by all others and the decisions of any state or territory training authority must be recognised by the other states and territories.

This allows national portability of qualifications and units of competency. A crucial feature of the training package (which accounts for about 60% of publicly funded training and almost all apprenticeship training) is that the content of the vocational qualifications is theoretically defined by industry and not by government or training providers.

A Training Package is "owned" by one of 11 Industry Skills Councils which are responsible for developing and reviewing the qualifications. The National Centre for Vocational Education Research or NCVET is a not-for-profit company owned by the federal, state and territory ministers responsible for training. It is responsible for collecting, managing, analysing, evaluating and communicating research and statistics about Vocational Education and Training (VET).

The boundaries between Vocational education and tertiary education are becoming more blurred. A number of vocational training providers such as NMIT, BHI and WAI are now offering specialised Bachelor degrees in specific areas not being adequately provided by Universities.

Such Applied Courses include in the areas of Equine studies, Winemaking and viticulture, aquaculture, Information Technology, Music, Illustration, Culinary Management and many more.

#### **COMMONWEALTH OF INDEPENDENT STATES**

The largest and the most unified system of vocational education was created in the Soviet Union with the Professional'no-tehnicheskoye uchilische and, Tehnikum. But it became less effective with the transition of the economies of post-Soviet countries to a market economy.

#### **FINLAND**

In Finland, vocational education belongs to secondary education. After the nine-year comprehensive school, almost all students choose to go to either a lukio (high school), which is an institution preparing students for tertiary education, or to a vocational school. Both forms of secondary education last three years, and give a formal qualification to enter university or ammattikorkeakoulu, i.e. Finnish polytechnics. In certain fields (e.g. the police school, air traffic control personnel training), the entrance requirements of vocational schools include completion of the lukio, thus causing the students to complete their secondary education twice. The education in vocational school is free, and the students from low-income families are eligible for a state student grant. The curriculum is primarily vocational, and the academic part of the curriculum is adapted to the needs of a given course. The vocational schools are mostly maintained by municipalities. After completing secondary education, one can enter higher vocational schools (ammattikorkeakoulu, or AMK) or universities. It is also possible for a student to choose both lukio and vocational schooling. The education in such cases last usually from 3 to 4 years.

### **GERMAN LANGUAGE AREAS**

Vocational education is an important part of the education systems in Austria, Germany, Liechtenstein and Switzerland (including the French and the Italian speaking parts of the country) and one element of the German model. For example, in Germany a law (the Berufsausbildungsgesetz) was passed in 1969 which regulated and unified the vocational training system and codified the shared responsibility of the state, the unions, associations and chambers of trade and industry. The system is very popular in modern Germany: in 2001, two thirds of young people aged under 22 began an apprenticeship, and 78% of them completed it, meaning that approximately 51% of all young people under 22 have completed an apprenticeship. One in three companies offered apprenticeships in 2003; in 2004 the government signed a pledge with industrial unions that all companies except very small ones must take on apprentices. The vocational education systems in the other German speaking countries are very similar to the German system and a vocational qualification from one country is generally also recognised in the other states within this area.

### **HONG KONG**

In Hong Kong, vocational education is usually for post-secondary 3, 5 and 7 students. The Hong Kong Institute of Vocational Education (IVE) provides training in nine different vocational fields, namely: Applied Science; Business Administration; Child Education and Community Services; Construction; Design; Printing, Textiles and Clothing; Hotel, Service and Tourism Studies; Information 4 Technology; Electrical and Electronic Engineering; and Mechanical, Manufacturing and Industrial Engineering.

## HUNGARY

Normally at the end of elementary school (at age 14) students are directed to one of three types of upper secondary education: one academic track (gymnasium) and two vocational tracks. Vocational secondary schools (szakközépiskola) provide four years of general education and also prepare students for the matura. These schools combine general education with some specific subjects, referred to as pre-vocational education and career orientation. At that point many students enrol in a postsecondary VET programme often at the same institution, to obtain a vocational qualification, although they may also seek entry to tertiary education. Vocational training schools (szakiskola) initially provide two years of general education, combined with some pre-vocational education and career orientation, they then choose an occupation, and then receive two or three years of vocational education and training focusing on that occupation - such as bricklayer. Students do not obtain the matura but a vocational qualification at the end of a successfully completed programme. Demand for vocational training schools, both from the labour market and among students, has declined while it has increased for upper secondary schools delivering the matura.

## INDIA

Vocational training in India is provided on a full-time as well as part-time basis. Full-time programmes are generally offered through Community Colleges and Industrial Training Institutes (ITIs). The nodal agency for grant the recognition to the I.T.I.s is NCVT which is under the Ministry of Labour, Government of India. Part-time programmes are offered through state technical education boards or universities who also offer full-time courses. Vocational training has been successful in India in Industrial Training Institutes in engineering trades only. There are many private institutes in India which offer courses in vocational training and finishing, but most of them have not been recognised by the Government. All the State Governments runs vocational schools. In kerala state 389 vocational schools are there with 42 different courses. Commerce and Business, Tourism, Agriculture, Automobile, Air conditioning, Livestock management, Lab Technician are some prominent courses. There is an urgent need that the selected Universities in India offer Certificate / Diploma / Advanced Diploma courses in different areas of specialisation for employment generation and entrepreneurship development. The salient feature of the University based courses is that these are fully recognised and the students passing out are preferred for Private as well as Government jobs. The World Institution Building Programme have offered around 1800 Vocational and Employment Centric courses under the auspices of its Community Colleges.

## JAPAN

Japanese vocational schools are known as senmon gakkô. They are part of Japan's higher education system. They are two year schools that many students study at after finishing high school (although it is not always required that students graduate from high school). Some

have a wide range of majors, others only a few majors. Some examples are computer technology, fashion and English.

## KOREA

Vocational high schools offer programmes in five fields: agriculture, technology / engineering, commerce/business, maritime/fishery, and home economics. In principle, all students in the first year of high school (10th grade) follow a common national curriculum, In the second and third years (11th and 12th grades) students are offered courses relevant to their specialisation. In some programmes, students may participate in workplace training through co-operation between schools and local employers. The government is now piloting Vocational Meister Schools in which workplace training is an important part of the programme. Around half of all vocational high schools are private. Private and public schools operate according to similar rules; for example, they charge the same fees for high school education, with an exemption for poorer families. The number of students in vocational high schools has decreased, from about half of students in 1995 down to about one-quarter today. To make vocational high schools more attractive, in April 2007 the Korean government changed the name of vocational high schools into professional high schools. With the change of the name the government also facilitated the entry of vocational high school graduates to colleges and universities. Most vocational high school students continue into tertiary education; in 2007 43% transferred to junior colleges and 25% to university. At tertiary level, vocational education and training is provided in junior colleges (two- and three-year programmes) and at polytechnic colleges. Education at junior colleges and in twoyear programmes in polytechnic colleges leads to an Industrial Associate degree. Polytechnics also provide one-year programmes for craftsmen and master craftsmen and short programmes for employed workers. The requirements for admission to these institutions are in principle the same as those in the rest of tertiary sector (on the basis of the College Scholastic Aptitude Test) but candidates with vocational qualifications are given priority in the admission process. Junior colleges have expanded rapidly in response to demand and in 2006 enrolled around 27% of all tertiary students. 95% of junior college students are in private institutions. Fees charged by private colleges are approximately twice those of public institutions. Polytechnic colleges are state-run institutions under the responsibility of the Ministry of Labour; government funding keeps student fees much lower than those charged by other tertiary institutions. Around 5% of students are enrolled in polytechnic colleges.

## MEXICO

In Mexico, both federal and state governments are responsible for the administration of vocational education. Federal schools are funded by the federal budget, in addition to their own funding sources. The state governments are responsible for the management of decentralised institutions, such as the State Centres for Scientific and Technological Studies (CECyTE) and Institutes of Training for Work (ICAT). These institutions are funded 50% from

the federal budget and 50% from the state budget. The state governments also manage and fund “decentralised institutions of the federation”, such as CONALEP schools. Compulsory education (including primary and lower secondary education) finishes at the age of 15 and about half of those aged 15-to-19 are enrolled full-time or parttime in education. All programmes at upper secondary level require the payment of a tuition fee. The upper secondary vocational education system in Mexico includes over a dozen subsystems (administrative units within the Upper Secondary Education Undersecretariat of the Ministry of Public Education, responsible for vocational programmes) which differ from each other to varying degrees in content, administration, and target group. The large number of school types and corresponding administrative units within the Ministry of Public Education makes the institutional landscape of vocational education and training complex by international standards.

Vocational education and training provided under the Upper Secondary Education Undersecretariat includes three main types of programme:

- “Training for work” (formación para el trabajo) courses at ISCED 2 level are short training programmes, taking typically 3 to 6 months to complete. The curriculum includes 50% theory and 50% practice. After completing the programme, students may enter the labour market. This programme does not provide direct access to tertiary education. Those who complete lower secondary education may choose between two broad options of vocational upper secondary education at ISCED 3 level. Both programmes normally take three years to complete and offer a vocational degree as well as the baccalaureate, which is required for entry into tertiary education.
- The title “technical professional - baccalaureate” (profesional técnico – bachiller) is offered by various subsystems though one subsystem (CONALEP) includes two thirds of the students. The programme involves 35% general subjects and 65% vocational subjects. Students are required to complete 360 hours of practical training.
- The programme awarding the “technological baccalaureate” (bachillerato tecnológico) and the title “professional technician” (técnico profesional) is offered by various subsystems. It includes more general and less vocational education: 60% general subjects and 40% vocational subjects.

## THE NETHERLANDS

Nearly all of those leaving lower secondary school enter upper secondary education, and around 50% of them follow one of 4 vocational programmes; technology, economics, agricultural, personal/social services & health care. These programmes vary from 1 to 4 years (by level; only levels 2,3 and 4 diplomas are considered formal ‘start qualifications’ for successfully entering the labour market). The programmes can be attended in either of two pathways. One either involving a minimum of 20% of school time (apprenticeship pathway;

BBL-BeroepsBegeleidende Leerweg) or the other, involving a maximum of 80% schooltime (BOL-BeroepsOpleidende Leerweg). The remaining time in both cases is apprenticeship/work in a company. So in effect, students have a choice out of 32 trajectories, leading to over 600 professional qualifications. BBL-Apprentices usually receive a wage negotiated in collective agreements. Employers taking on these apprentices receive a subsidy in the form of a tax reduction on the wages of the apprentice. (WVA-Wet vermindering afdracht). Level 4 graduates of senior secondary VET may go directly to institutes for Higher Professional Education and Training (HBO-Hoger beroepsonderwijs), after which entering university is a possibility. The social partners participate actively in the development of policy. As of January 1, 2012 they formed a foundation for Co operation Vocational Education and Entrepreneurship (St. SBB - stichting Samenwerking Beroepsonderwijs Bedrijfsleven; www.s-bb.nl). Its responsibility is to advise the Minister on the development of the national vocational education and training system, based on the full consensus of the constituent members (the representative organisations of schools and of entrepreneurship and their centres of expertise). Special topics are Qualification and Examination, Apprenticeships (BPVBeroepspraktijkvorming) and (labourmarket) Efficiency of VET. The Centres of Expertise are linked to the four vocational education programmes provided in senior secondary VET on the content of VET programmes and on trends and future skill needs. The Local County Vocational Training (MBO Raad www.mborraad.nl) represents the VET schools in this foundation and advise on the quality, operations and provision of VET.

#### **NEW ZEALAND**

New Zealand is served by 39 Industry Training Organisations (ITO). The unique element is that ITOs purchase training as well as set standards and aggregate industry opinion about skills in the labour market. Industry Training, as organised by ITOs, has expanded from apprenticeships to a more true lifelong learning situation with, for example, over 10% of trainees aged 50 or over. Moreover much of the training is generic. This challenges the prevailing idea of vocational education and the standard layperson view that it focuses on apprenticeships. One source for information in New Zealand is the Industry Training Federation. Another is the Ministry of Education. Polytechnics, Private Training Establishments, Wananga and others also deliver vocational training, amongst other areas.

#### **NORWAY**

Nearly all those leaving lower secondary school enter upper secondary education, and around half follow one of 9 vocational programmes. These programmes typically involve two years in school followed by two years of apprenticeship in a company. The first year provides general education alongside introductory knowledge of the vocational area. During the second year, courses become more trade-specific. Apprentices receive a wage negotiated in collective agreements ranging between 30% and 80% of the wage of a qualified worker; the percentage increasing over the apprenticeship period. Employers taking on apprentices receive a subsidy,

equivalent to the cost of one year in school. After the two years vocational school programme some students opt for a third year in the 'general' programme as an alternative to an apprenticeship. Both apprenticeship and a third year of practical training in school lead to the same vocational qualifications. Upper secondary VET graduates may go directly to Vocational Technical Colleges, while those who wish to enter university need to take a supplementary year of education. The social partners participate actively in the development of policy. The National Council for Vocational Education and Training advises the Minister on the development of the national vocational education and training system. The Advisory Councils for Vocational Education and Training are linked to the nine vocational education programmes provided in upper secondary education and advise on the content of VET programmes and on trends and future skill needs. The National Curriculum groups assist in deciding the contents of the vocational training within the specific occupations. The Local County Vocational Training Committees advise on the quality, provision of VET and career guidance.

### **PARAGUAY**

In Paraguay, vocational education is known as Bachillerato Técnico and is part of the secondary education system. These schools combine general education with some specific subjects, referred to as pre-vocational education and career orientation. After nine year of Educación Escolar Básica (Primary School), the student can choose to go to either a Bachillerato Técnico (Vocational School) or a Bachillerato Científico (High School). Both forms of secondary education last three years, and are usually located in the same campus called Colegio. After completing secondary education, one can enter to the universities. It is also possible for a student to choose both Técnico and Científico schooling.

### **SWEDEN**

Nearly all of those leaving compulsory schooling immediately enter upper secondary schools, and most complete their upper secondary education in three years. Upper secondary education is divided into 13 vocationally oriented and 4 academic national programmes. Slightly more than half of all students follow vocational 9 programmes. All programmes offer broad general education and basic eligibility to continue studies at the post-secondary level. In addition, there are local programmes specially designed to meet local needs and 'individual' programmes. A 1992 school reform extended vocational upper secondary programmes by one year, aligning them with three years of general upper secondary education, increasing their general education content, and making core subjects compulsory in all programmes. The core subjects (which occupy around one-third of total teaching time in both vocational and academic programmes) include English, artistic activities, physical education and health, mathematics, natural science, social studies, Swedish or Swedish as a second language, and religious studies. In addition to the core subjects, students pursue optional courses, subjects which are specific to each programme and a special project. Vocational programmes include 15 weeks of workplace training (Arbetsplatsförlagd utbildning

- APU) over the three-year period. Schools are responsible for arranging workplace training and verifying its quality. Most municipalities have advisory bodies: programme councils (programmråd) and vocational councils (yrkesråd) composed of employers' and employees' representatives from the locality. The councils advise schools on matters such as provision of workplace training courses, equipment purchase and training of supervisors in APU.

## SWITZERLAND

Nearly two thirds of those entering upper secondary education enter the vocational education and training system. At this level, vocational education and training is mainly provided through the 'dual system'. Students spend some of their time in a vocational school; some of their time doing an apprenticeship at a host company; and for most programmes, students attend industry courses at an industry training centre to develop complementary practical skills relating to the occupation at hand. Common patterns are for students to spend one- two days per week at the vocational school and three-four days doing the apprenticeship at the host company; alternatively they alternate between some weeks attending classes at the vocational school and some weeks attending industry courses at an industry training centre. A different pattern is to begin the programme with most of the time devoted to inschool education and gradually diminishing the amount of in-school education in favour of more in-company training. Switzerland draws a distinction between vocational education and training (VET) programmes at upper-secondary level, and professional education and training (PET) programmes, which take place at tertiary B level. In 2007, more than half of the population aged 25-64 had a VET or PET qualification as their highest level of education. In addition, universities of applied sciences (Fachhochschulen) offer vocational education at tertiary A level. Pathways enable people to shift from one part of the education system to another.

## TURKEY

Students in Turkey may choose vocational high schools after completing the 8-yearlong compulsory primary education. Vocational high school graduates may pursue 2 year-long polytechnics or may continue with a related tertiary degree. Municipalities in Turkey also offer vocational training. The metropolitan municipality of Istanbul, the most populous city in Turkey, offers year long free vocational programmes in a wide range of topics through ISMEK, an umbrella organisation formed under the municipality.

## UNITED KINGDOM

The first "Trades School" in the UK was Stanley Technical Trades School (now Harris Academy South Norwood) which was designed, built and set up by William Stanley. The initial idea was thought of in 1901, and the school opened in 1907. The system of vocational education in the UK initially developed independently of the state, with bodies such as the RSA and City & Guilds setting examinations for technical subjects. The Education Act 1944 made provision for

a Tripartite System of grammar schools, secondary technical schools and secondary modern schools, but by 1975 only 0.5% of British senior pupils were in technical schools, compared to two-thirds of the equivalent German age group. Successive recent British Governments have made attempts to promote and expand vocational education. In the 1970s, the Business And Technology Education Council was founded to confer further and higher education awards, particularly to further education colleges in the United Kingdom. In the 1980s and 1990s, the Conservative Government promoted the Youth Training Scheme, National Vocational Qualifications and General National Vocational Qualifications. However, youth training was marginalised as the proportion of young people staying on in full-time education increased. In 1994, publicly funded Modern Apprenticeships were introduced to provide “quality training on a work-based (educational) route”. Numbers of apprentices have grown in recent years and the Department for Children, Schools and Families has stated its intention to make apprenticeships a “mainstream” part of England’s education system.

### CONCLUSION

India has a population of more than 1300 million and out of that 800 million are young people wanting immediate employment or business leadership qualities. This is possible only after effective training is provided at the secondary and post secondary levels. The Community College concept is the best idea for providing employment centric vocational training and guidance to the young boys and girls. They can further complete their Bachelor’s or Master’s Degrees but initial training through vocationalisation will enable them to either seek jobs or to become entrepreneurial leaders in future. 11 These 800 million trained persons may not only work in India but they can be exported to all parts of the world wherever their requirements are today or tomorrow.