

Chapter 2

Entrepreneurship and Skill Development

Abstract Developing skills and competencies among the youth population is posing a serious concern for educators and curriculum developers in India. Ironically, the country which has an advantage of being a young nation, has a vast majority of students drop out at various stages of school education and at the same time are usually bereft of employable skills and competencies. The Indian experience of vocationalisation of education, which has a history of four decades, lacks success in its growth and effective implementation. The recent initiatives of Government of India prioritise on skill development programmes with employment potential and direct utility in life. The prominent among them are setting up National Skill Development Council and National Vocational Educational Qualifications Framework to meet the future professional needs of the society. Against this background, the chapter consolidates policies, programmes, and reports on work education and advancing entrepreneurship in Indian and international context.

Keywords Skill development • Entrepreneurship research • Vocational education
Quality education • Life skill education

The study of entrepreneurship has grown dramatically and is now becoming a priority in educational research, both for courses taught and volume of researches undertaken. While setting up its own boundaries, this field of study has relied on other disciplines for much of its content. Business education, economics and more recently cognitive psychology have been influential in informing the dominant methods in entrepreneurship research. Academic research in these areas has contributed significant knowledge to understand the causes of entrepreneurial propensity (Gartner 1985; Brockhaus and Horwitz 1986; Bygrave 1989; Baumol 1993; Young and Sexton 1997; Timmons 1999; Rae 2000). Theories based on rigorous quantitative research inconsistently prove the nature of an entrepreneur, entrepreneurial activity and its effect on economic development. Entrepreneurship when

seen through the economic lens is linked to innovation and economic growth and is widely accepted as the fifth factor of production (Kirzner 1973; Schumpeter 1912/1934).

However, there is a pressing need for a qualitative field of research to develop theories of how and why entrepreneurial activity occurs. For example, whether entrepreneurial intent is primarily predetermined by steady personality characteristics or it is possible to foster entrepreneurship propensity towards self-employment through a pragmatic education programme.

2.1 Approach to Entrepreneurship Education

One of the major concerns facing entrepreneurship today is the limited conception of what ‘entrepreneurship’ means and who becomes an entrepreneur? How does one acquire entrepreneurial skills, develop entrepreneurial vision and become an entrepreneur? An approach to entrepreneurship considers the following questions.

- i Where do entrepreneurs come from?
- ii What motivates them?
- iii How do they search the point to launch a new venture?
- iv Is entrepreneurship a practice like law or medicine?
- v Else, is it an art consisting of vision and circumstances based on persistence, hard work and creativity?

These questions are answered by analysing the common traits of successful entrepreneurs. The qualities usually ascribed to an entrepreneur includes innovative, decision making and responsibility-seeking, ambitious, desirous of independence, self-confident, moderate risk taker, power seeker and having personal value orientation. The *trait theory* tries to identify commonality and similarity among the group. McClelland (1961) suggests that these traits include need for achievement, self-belief and propensity to take risks and independence. However, no single trait proved to be exclusively entrepreneurial and trait measurement is subject to controversy.

Are entrepreneurs born? It is no longer a relevant question. Entrepreneurship is, in fact, a multi-dimensional. It is precisely, therefore, desirable to examine it from the psychometric view. A study was conducted to dimensionalise the diverse characteristics of entrepreneurs to evolve a mathematical structure underlying entrepreneurship development. The main distinguishing feature of the study was the use of 31 variant model (see Table 2.1) to evolve a mathematical structure underlying the construct of entrepreneurship. The mathematical model used 14 personality

Table 2.1 Listing the variables (N = 31)

The Construct of Entrepreneurship (14 identified dimensions)													
V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14
Risk taking	Persistence and hardwork	Use of feedback	Personal responsibility	Knowledge ability	Persuasive ability	Managerial ability	Innovativeness	Integrity and communication	Emotional stability	Motivation	Decision making	Divergent thinking	Problem solving adequacy
Personality variables													
V15	Reserved versus outgoing	V16	Less intelligent versus more intelligent	V17	Affected by feelings versus emotional stable	V18	Phlegmatic versus excitable	V19	Obedient versus assertive	V20	Sober versus happy-go-lucky	V21	Expedient versus conscientious
V22	Shy versus venturesome	V23	Tough-minded versus tender-minded	V24	Vigorous versus doubting	V25	Group dependent versus self sufficient	V26	Undisciplined versus controlled	V27	Placid versus apprehensive	V28	Relaxed versus tensed
Other (outside) variables													
V29	Age	V30			Family background (employed or self employed)					V31			
										Stream of study (academic and vocational)			

variables propounded by Professor R. B. Cattell.¹ The primary objective of the study was to find out whether entrepreneurs are born with an instinct or spirit of entrepreneurship, or whether entrepreneurial abilities can be inculcated among individuals through pragmatic educational programmes. For this purpose, two questionnaires: (1) the Entrepreneurship Self-Assessment Scale and (2) the Problem Solving Adequacy Scale, were constructed (see Appendices A and B in this chapter). The reliability of the Entrepreneurship Self-Assessment Scale and Problem Solving Adequacy Scale were found to be 0.70 and 0.77 respectively using a split-half method. The concurrent validity for both the tests was found to be 0.76. The test items of both the tests showed content validity.

The study was conducted on higher secondary stage students belonging to the academic and vocational streams (Vaidya 2004). Under the Indian school system, vocational education appears as a distant stream at the higher secondary stage and is taught simultaneously with the academic stream of study in science, humanities and commerce. Entrepreneurship is taught as a foundation course and is integral to the vocational education programme in school. Its objective is to prepare the vocational students towards self-employment and creation of new businesses inculcating in them the vocational skills and entrepreneurship competence.

An analysis of the obtained factor matrix as shown in Table 2.2 reveals that as many as 10 identified dimensions of entrepreneurship did not emerge significantly towards the personality factors which invariably rejects the born *versus* made argument. This is true for all professions and professional situations. There is no dispute that medicine, law, engineering, arts can be taught. But there are artists, doctors, engineers, lawyers who are talented and others are not. A similar reflection is applied to entrepreneurship and entrepreneurs. Broadly, entrepreneurship

¹ Professor Raymond B. Catell (1950) propounded the theory of personality. According to him, the basic structural element is the trait. He defined that a trait is a structure of the personality inferred from behaviour in different situations. He classified traits into four categories.

- i *Common Traits*: Certain traits which are widely distributed among all groups are common traits such as honesty, aggression and cooperation.
- ii *Unique Traits*: These traits are possessed by particular people, e.g. temperamental traits, emotional reactions, energy, etc.
- iii *Surface Traits*: Traits which can be easily recognised by appearance of behaviour are called surface traits. These are curiosity, integrity, honesty, tactfulness and dependability.
- iv *Source Traits*: Traits which control the behaviour of the individual such as dominance and emotionality. Cattell's work is a renowned example of the trait approach. Trait theories assume that personality can be characterised by knowing a person's traits. The 'trait profile' indicates an individual's standing on each of the primary traits, which emerges from his score. This provides the description and measurement of personality. The 16-personality factor questionnaire is a well-known test designed by Professor Catell. For high school students, Professor Cattell developed the 'High School Personality Questionnaire', popularly known as HSPQ, in 1984. HSPQ is a personality questionnaire that evaluates 14 personality characteristics, namely, warmth, intelligence, emotional stability, excitability, dominance, cheerfulness, conformity, boldness, sensitivity, withdrawal, apprehension, self-sufficiency, self-discipline and tension. It is an effective tool assessing the behaviour pattern of adolescents.

Table 2.2 Analysis of obtained factor matrix

Factors	Dimensions of entrepreneurship	Personality variables	Outside variables	Eigen values	% of variance
Factor 1	i. Persistence and hard work	No personality variable found significant on this factor	-	4.18	13.5
	ii. Use of feedback				
	iii. Knowledge ability				
	iv. Persuasive ability				
	v. Innovativeness				
	vi. Integrity and communication				
	vii. Emotional stability				
	viii. Decision making				
	ix. Divergent thinking				
	x. Problem solving adequacy				
Factor 2	Motivation	Reserved versus outgoing	-	2.01	5.08
		Affected by feelings versus emotional stable			
		Shy versus venturesome			
Factor 3	Knowledge ability	Less intelligent versus more intelligent	i. Family background	1.58	4.67
			ii. Stream of study		
Factor 4	Personal responsibility	No personality variable found significant on this factor	-	1.45	4.44
	Managerial ability				
Factor 5	Decision making				
	None of the dimensions of entrepreneurship significant on this factor	i. Phlegmatic versus excitable	-	1.38	4.11
Factor 6		iii. Obedient versus assertive			
		iv. Sober versus happy-go-lucky			
	None of the dimensions of entrepreneurship significant on this factor	i. Expedient versus conscientious	-	1.27	3.88
		ii. Tough-minded versus tender-minded			
Factor 7		iii. Vigorous versus doubting			
	None of the dimensions of entrepreneurship significant on this factor	i. Reserved versus outgoing	-	1.20	3.68
		ii. Affected by feelings versus emotional stable			

education involves attitudes, skills and personal qualities. It should however not be quantitatively focused on creation of new business ventures.

2.1.1 Policy, Practices and Skill Development Initiatives

The concept of entrepreneurship is new to the Indian education discourse. Even so, it can be argued that some of its aspects have been visible in Indian education for a reasonable length of time. Mahatma Gandhi had visualised education as a means of awakening the nation's consciousness to injustice, violence and inequality entrenched in the social order. With 'basic education', which came to be later known as *nai talim/buniyadi shiksha* (lit. new pedagogy/fundamental education), Gandhiji stressed the need to place 'productive work' at the heart of education as a resource for socialising the child in a transformative vision of society.

The All India National Education Conference held at Wardha, Maharashtra state in India, in 1937 under the leadership of Mahatma Gandhi called for a nationwide debate on the 'conceptual clarification' of an alternative educational paradigm to shape the national system of education for independent India. The Conference deliberated upon Gandhiji's proposal of 'basic education' to make productive work, the pedagogic basis of learning in schools. Visualising schools as learning communities engaged in production, and making schools self-reliant through the income of productive work were the key features of the original proposal and viewed as a means of social transformation. While addressing the conference, Mahatma Gandhi stated:

(T)he scheme I wish to place before you today is not the teaching of some handicrafts side by side with so called liberal education. I want the whole process of education to be imparted through some handicraft or industry.... (T)he remedy lies in imparting the whole art and science of craft through practical training and through imparting the whole education. While teaching *takli*-spinning, for instance, we must impart knowledge of various varieties of cotton, the different soils in different proveniences of India, the history of decay of handicrafts, the political reasons for this, including the history of the British rule in India, knowledge of arithmetic and so on.... (Gandhi 1939, pp. 48–49).

After independence from Britain in 1947, India witnessed a number of the national commissions and committee deliberations, revisiting the concerns of education articulated during the freedom struggle. These commissions elaborated on the themes emerging out of Mahatma Gandhi's educational philosophy in the changed sociopolitical context, with the focus on national development. The most prominent among them are reported below to draw critical lessons from history for a later discourse on entrepreneurship education in this book.

Under Dr. D.S. Kothari, the Chairman of the University Grants Commission, the Indian Education Commission was set up in 1964. This was an important event in many aspects. It was the first commission to do a comprehensive overview of the entire education system rather than of specific sectors and also focused on the relation between education and national development. It recommended that work experience be introduced as an integral part of all education and defined work experience as 'participation in productive work in school, in the home, in a workshop, on

a farm, in a factory or in any other production situation' (Education and National Development, Government of India 1966, Sect. 1.25). While distinguishing between work experience in education and vocationalising education, the Commission stated:

The need to provide some such corrective to the over-academic nature of formal education has been widely recognised. It could make the entry of youth into the world of work and employment easier by enabling them to adjust themselves to it. It could contribute to the increasing of national productivity both by helping students develop insights into productive processes and the use of science thereby generating in them the habit of hard and responsible work ... (B)y strengthening the links between the individual and the community (ibid. Sect. 1.27–1.29).

Another landmark in the history of India's education was the Ishwarbhai Patel Committee set up in 1977 to review the 10-year school curriculum brought out in 1975. The report made several suggestions and observed that the curriculum should be capable of relating learning closely to socially productive manual work and the socio-economic situation of the country in such a way that working and learning can always be combined. Preferring to term 'purposive, meaningful, manual work' in the curriculum as Socially Useful Productive Work (SUPW), the Committee observed:

The aim of the curricular area is to provide children with opportunities of participating in social and economic activities inside and outside the classroom,... (T)he criterion for selection of activities should, thus, be that the work involved is productive, educative and socially useful.... (M)ust not be confined to the four walls of the school nor can they be provided by the teacher only. Programmes should, therefore, be so planned and implemented that the local community, community development, organisations and governmental agencies participate in them and cooperate with the school (Ishwarbhai Patel Committee Report, Government of India 1977, Chaps. 3, 10–11).

The concept of SUPW, as proposed by the Ishwarbhai Patel Committee, was fully endorsed by the National Review Committee on Higher Secondary Education (1978), with special reference to vocationalisation of education for the higher secondary stage (Adiseshiah Committee Report, Government of India 1978).

Concerned with students' entry into the workforce, the National Policy on Education (1986), emphasised vocational education at the higher secondary stage. However, the reason for work experience in this policy was to build the workforce and strengthen vocational courses, rather than to provide a powerful medium for the acquisition of socially relevant knowledge and to build up creative and purposeful citizens.

Abdul Kalam (2004), former President of India, also underlined the need to integrate entrepreneurship education in educational settings, particularly in the school education programme:

(T)he whole purpose of education in a country like India is to develop and enhance the potential of our human resource and progressively transform it into a knowledge society. The education should realign itself at the earliest to meet the needs of present-day challenges and be fully geared to enter in societal transformation.... [T]he education should build entrepreneurial and vocational abilities in students.... [W]hen they come out of educational institutions, they should have the confidence to start small enterprises and have the skills to do it.... [A]bove all, the education has to reveal the spirit: we can do it. We need education integrated with an entrepreneurial spirit.... The curriculum for Arts, Science and Commerce should include practicable topics where entrepreneurship is possible.

Recognising the need for an entrepreneurial society, the National Knowledge Commission² brought out a report titled *Entrepreneurship in India* (2008), which recommends developing curricula, pedagogical methods, and an examination that encourage critical and lateral thinking among individuals at all stages of education. The National Knowledge Commission report recommends that the starting point for bringing about such reforms should be the school stage, motivating children to think outside the box and beyond the textbooks by rejecting the linear and stereotype career paths. Entrepreneurship cannot be learnt by the 'chalk and talk' method with the teacher behaving as a 'sage on stage'. Evolving pedagogical approaches beyond the confines of textbooks is required to inculcate leadership and team building skills, which are necessary for entrepreneurial abilities to grow and nurture.

2.1.2 Entrepreneurship and Vocational Education

National policy planners, as reported above, have considered school education important for acquiring necessary skills and competencies for students to enter the world of work. Vocational education, as a distinct stream, intends to prepare students for identified vocations spanning several areas. Vocational education programme at the school stage is a practical course through which one gains skills and experiences directly linked to a particular vocation. It imparts skill education and offers better employment opportunities to the higher secondary stage students. The National Policy on Education (1986) set the target, to cover 10 % higher secondary students under vocational courses by 1990 and 25 % by 1995. The Programme of Action, 1992, however, reset the targets of diversification of students in vocational streams at the plus two level to 10 % by 1995 and to 25 % by 2000. Yet, an enrolment of only about 5 % in vocational stream has been achieved at present in the Indian schools. The National Mission on Skill Development,³ under the Chairmanship of the Prime Minister of India, has set a

² The National Knowledge Commission (<http://www.knowledgecommission.gov.in>) was set up in June 2005 as a high-level advisory body to the Prime Minister of India with the objective to sharpen India's comparative advantage in the knowledge-intensive service sectors. The National Knowledge Commission has submitted around 300 recommendations on 27 focus areas during its three-and-a-half year term. While the term of the NKC has come to an end, the implementation of NKC's recommendations is under way at the Central and state levels.

³ The National Skill Development Corporation (NSDC) is a not-for-profit organisation in public-private partnership (PPP) mode set up by the Ministry of Finance, Government of India, in 2009 to help the up-gradation of skills among the Indian workforce, especially in the unorganised sector. The key role of the NSDC relates to funding, incentivizing and enabling support services through trainings and in-depth research studies to fill the gap between growing demand and scarce supply of skilled workforce across the sectors. Twenty-one sectors have been identified, which include automobiles and auto components, electronic hardware, textiles and garments, chemicals and pharmaceuticals, gems and jewellery, construction, handlooms and handicrafts, information technology and software, tourism, banking and insurance, health care, education and skill development, media, etc.

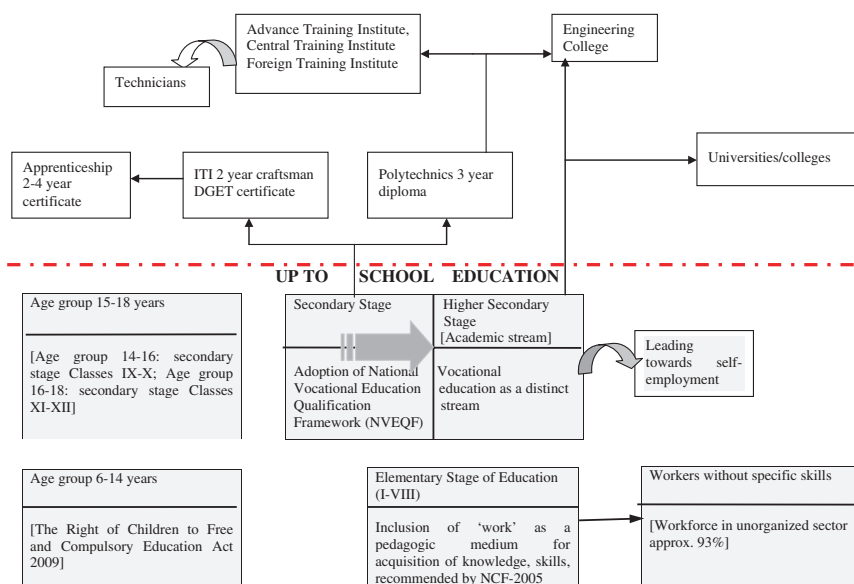


Fig. 2.1 The structure of vocational and technical education in India. *Source* Adapted from World Bank (2006), p. 35

target of preparing 500 million skilled persons by 2022. Conversely, it is expected that nearly 80 million jobs will be created in India between 2012–2013 and 2016–2017, which will require vocational training for raising the employability prospects. There is a pronounced 'skill gap' both in terms of quality and quantity; and current vocational education and training infrastructure are not geared to meet industry requirements (CII 2009). This is a contradiction of scenarios—supply with demand mismatch on the one hand and a rising population of educated unemployed on the other. Considering the extent of the challenge, India needs a flexible education infused with basic education to provide the foundation for learning; and secondary and tertiary education to develop core capabilities and skills.

Vocational education and training is provided in India by several educational institutions and organisations. Despite this, of the 12.8 million new entrants to the workforce every year, the existing skill development capacity is only 3.1 million (Secondary and Vocational Education Report 2011). Figure 2.1 presents an overview of the structure of vocational education system in India.

There are close to 1.3 million schools in India with a total enrolment of over 227 million students, from the primary stage (Classes I–V) to the higher secondary stage (Classes XI–XII). Given the dropout rates rises substantially after Class VIII and further after Class X, it is obvious from Fig. 2.1 that a significant number of children will drop out without gaining any employable skills. Hence, vocational education and skill development become even more relevant. They not only link

education with employability but also help in retaining more children in the secondary and higher secondary levels. The need for vocational education also stems from the fact that 93 % of our workforce is in the unorganised sector, most being illiterate or having elementary level of education. Therefore, there is need for skill cultivation and training for such people in order to mainstream them in the growing process of economic growth. This implies that to have inquiring minds who can *think entrepreneurially* at the age of 21, suitable education needs to begin not at age 17 years but at 7 years, or at least at 11 years.

2.1.3 Lessons from the Global Entrepreneurship Monitor (India) Report, 2002

Entrepreneurship framework conditions discussed in the Global Entrepreneurship Monitor (India) Report (2002) show that India has emerged as the second most entrepreneurially active nation among 37 national teams (accounting for 62 % of the world's population) and is maintaining its momentum. However, the findings of the report specifically pinpoint that the high level of entrepreneurial activity in India is a consequence of high rate of unemployment in the country. This entrepreneurial activity may not be sustainable without adequate support of the right kind of education system (pp. 37–38). The report noted that the education system in India is not creating an entrepreneurial orientation among people and stressed the need to create a strong link between the spirit of entrepreneurship and education. The analysis of the entrepreneurial framework conditions in India is shown in Table 2.3.

2.2 Pedagogical Glimpses of ‘Work’ and Social Engagements as Curricular Components: Exemplar Lessons from the State of Maharashtra in India⁴

It is argued that to uncover clear objectives of entrepreneurship education, it should be truly recognised and not confused with the broader aspects of school and industry linkages. There is a need to explore how entrepreneurship can be extended beyond the classroom. The challenge is to build on the existing practices to achieve a more coordinated approach, taking the best from different educational programmes.

⁴ Cited from National Focus Group Paper on ‘Work and Education’, National Curriculum Framework-2005, NCERT, Ministry of Human Resource Development, Government of India, New Delhi, reproduced with permission.

Table 2.3 Entrepreneurial framework condition in India

Strengths	Weaknesses
<i>Education and training</i>	
Large pool of manpower	Emphasis on entrepreneurship is lacking in the education sector
Strong educational base in the country	Education is not practice-based
High quality management education which can be branched out to entrepreneurship	Poor literacy rates in the country Poor quality of school education
<i>Cultural norms</i>	
Hardworking and innovating Indians	Entrepreneurship is not considered a high status career in India Indians are risk averse Lack of awareness of entrepreneurship as a career
Entrepreneurially oriented communities in the states of Rajasthan (community: <i>Marwaries, Sindhies</i>) and Gujarat	Entrepreneurial spirit lies dormant
There is change in perception, entrepreneurship is gaining respect	Lack of support in non- business families.
Greater awareness of opportunities amongst present generation	Succeeding generations tend to follow earlier generations, hence secured employment is the first choice
<i>Entrepreneurial capacity</i>	
Large number of NGOs facilitate entrepreneurship	Entrepreneurial potential is not nurtured in the country Fear of failure
Good industrial base in the country makes people entrepreneurial	There needs to be greater awareness about entrepreneurship
<i>Government policy</i>	
The country's liberalisation policy in the early 90's has established the government's role of being viewed as a 'facilitator' rather than a 'provider of job'	Too many government controls. A more proactive role of the government is required Too many laws regulating the starting and running of business Multiple legislations on every issue
Labour policy on wages is conducive to small business	Reforms need to continue and further reforms required
<i>Social status and esteem</i>	
Publicity for success stories like Infosys and Wipro	Well documented and published success stories could help in changing some negative perceptions
Low manpower cost is a big advantage	

In this context, pedagogical glimpses of work and social engagement are presented which might help teachers, teacher educators and curriculum developers to plan entrepreneurship centred curriculum for different stages of education.

2.2.1 Artisans and Farmers as ‘Honourable Teachers’: M. N. Institute for Non-formal Education, District Satara, Maharashtra

Karad and Walmikinagar are rural areas in Satara District of Maharashtra, India. The majority of children studying in these two schools belong to the families of slum dwellers, farm labourers and other poor people. In the years 1997 and 1998, the teachers and parents decided to bring real life experiences into the curriculum with community support. The artisans, local farmers and other workers from the community were invited as ‘honourable teachers’. One by one, a carpenter, a blacksmith, a tailor, a painter, a bicycle repairer and a shepherd visited the school. When these persons entered the school for the first time, everyone mocked at him: What can they teach us when they themselves do not know how to write or read even their own names? But, with simple mathematics (including measurements), some principles of physics and chemistry, drawing and painting were part of the learning that took place. An ‘honourable teacher,’ a shepherd, accompanied children to the jungle showing and explaining the names, characters and uses of various plants. Soon, every child in the school was able to identify more than 100 plant species. These children are now preparing a biodiversity register. The impact was visible. The slum children started addressing the local artisans as ‘*Guruji*’. Also, the artisans started taking interest in the children’s education. The parents too developed a sense of affinity for the school. Education was suddenly a lively issue.

2.2.2 Goat Farm, Poultry and Plant Nursery as Work Experience Sites: Pragat Shikshan Santha, District Satara, Maharashtra

Kamala Nimbkar Balbhavan, a private Marathi medium school in western Maharashtra observed that work experience, as it is conceived in the curriculum today, ceases to interest students. Therefore, the school contacted a cooperative poultry farm, a goat farm and a plant nursery. The managers and owners of these places agreed to have students work for them and divided class into three groups of 10 students each. The experiment revealed that students took interest in collecting information about breeds, diseases, vaccination and care for animals and birds. In the plant nursery children learnt to change soil in the pots, prune the plants and prepare seedbeds. After a week, the groups came back and prepared the report. The language teacher has an important role here in helping students talk and write about their experiences. The experiment gave students an exposure to the real world of work. They worked manually and took pride in it. This short exposure enabled them to learn about farm and nursery. When students learn from society, they deal with unexpected and unpredictable situations. The entire activity was

able to achieve its aim of providing students a real work experience and quality education.

2.2.3 Linking 'Work' with Development: Vigyan Ashram at Pabal, District Pune, Maharashtra

This is an example of introducing basic technology as a vocational programme in the school curriculum. It engages students in productive work in any one of the areas such as engineering, energy, environment, agriculture, animal husbandry and health.

The students play an effective technical role in several rural development tasks like workshed development, sanitation, maintenance of public property, pest control and vaccination. This demolished the myth that introduction of work in the curriculum increases the load on students. Work education not only helps them gain new skills and skill-related knowledge but also enables them understand the other school subjects better. The students performed real life tasks, which are valuable to the community such as making school benches, fabricating window grills and doors, handling electric wiring, servicing auto rickshaws, etc. One also finds young women doing unconventional tasks considered to be coming under the male work domain.

2.3 International Perspectives

Entrepreneurship, integral to the education, is now widely accepted across the globe. The nations are looking forward towards entrepreneurship education as a holistic and integrative process rather than a functional subdivision of modern business education. According to the Asia-Pacific Centre of Educational Innovation for Development (ACEID 1994, p. 142) ‘...(W)hether it is solving unemployment crisis or far-reaching socio-economic changes, people must need to be enterprising. Thus, it means more than just a business skill. It means survival.’ What drives certain individuals to rise above their circumstances? What makes one community generally more successful and content than another. In this regard, the Forum for Entrepreneurship Education, Vanderbilt University provides for entrepreneurial thinking in a unique cross-disciplinary online curriculum development project *Learning in Action! Curriculum* (refer to Box 2.1). The forum believes that students will learn to lead themselves and be Intrapreneurial, i.e. problem solver, proactive, self motivated, confident leading towards lifelong learning. In its broader definition, it supports the use of practice-based pedagogical tools whereby students are involved in concrete enterprise projects necessary for building an entrepreneurial spirit. It, thus, becomes important for the educators and the community to understand that entrepreneurship is a key competence for all. It does not

aim to turn all pupils into business people. It is surprising to note that although the importance of entrepreneurship in the context of economic development is overstressed, this area of study has remained fairly untested.

To capture fully and understand the entrepreneurship in an educational setting, we need to take a broad and an inclusive view of advancing entrepreneurship education internationally.

Box 2.1: The Online ‘Learning in Action’ Curriculum, Vanderbilt University, United States of America

The forum provides for entrepreneurial thinking in a unique cross-disciplinary online curriculum development project. The primary goal of *Learning in Action! Curriculum* is to see entrepreneurship education as a vehicle for creating learning environment. *Learning in Action!* is a cross-disciplinary problem based on learning environment, where students learn multiple concepts and different disciplines simultaneously. The overriding theme is to produce students who can be creative thinkers in the Twenty-first century. It contains learning cases with entrepreneurship as the central theme of each case. These cases teach students to expand their thinking outside the linear systems. The students are able to deal with uncertainty and chaos, and to see opportunities that may come out from the ever changing environment. It includes new idea development, creativity and humour, and entrepreneurship is seen as a way of viewing and thinking about a way of life.

Source Entrepreneurship Education Forum, Department of Leadership, Policy and Organisation, Vanderbilt University, Nashville, <http://www.vanderbilt.edu>

Addressing the current economic crisis, the World Economic Forum (2009) brought out a report titled *Educating the Next Wave of Entrepreneurs: Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of Twenty-First Century*, which recommends entrepreneurship education as a vehicle for economic growth for fulfilling the aim of achieving the millennium development goals. The report lays emphasis on developing innovative tools, approaches and delivery methods for advancing entrepreneurship education by consolidating the scattered educational programmes across the globe. The report further envisages entrepreneurship in a broader perspective and that the features like creativity, autonomy, initiative, team spirit, etc. should find the right place in the school curriculum.

2.4 Entrepreneurship and Quality Education

In the context of education, the two parameters that define ‘quality’ are (1) cognitive, creative and emotional development of learners; and (2) the role of school in promoting values and attitudes for the holistic development of personality.

Entrepreneurship education in an educational setting recognises that youths are a diverse group with diverse qualities, talents, motivations and learning objectives. It clearly focuses on developing, understanding and ability for pursuit of entrepreneurial behaviours, attributes and skills in widely different contexts which can be practiced, developed and learned over a period of time. Personal attributes such as creativity and spirit of innovation can be useful to everyone in their responsibilities and daily existence.

Entrepreneurship education supports the school-to-work transition. It shows learners that there are different paths to the future and different choices based on actions and values. It also helps to even out inequalities in educational achievement and securing pathways after school, particularly for girls and children belonging to disadvantaged communities. The benefits of entrepreneurship education extend beyond the creation of new ventures. The benefits make learners aware of possibilities and opportunities by developing in them a positive and favourable attitude. It makes them understand that change brings opportunities to those who have an entrepreneurial attitude and encourages them identify their strengths and weaknesses.

Entrepreneurship education, thus, draws youngsters towards civic engagement in their communities for attaining the educational goal of quality education to all. This makes entrepreneurship not just a 'subject' to be taught; rather, it is reflected in the pedagogy, the ability of the teaching staff and the forward-looking school environment. The work and social engagement lessons as curricular components of certain schools in Maharashtra, India, discussed earlier in this chapter, are examples in support of this.

In conclusion, the entire discussion can be summed up in the form of following key statements:

1. Entrepreneurship occupies an action arena. It comprises the learning phase, the attitudinal phase, the performance phase and finally, winning the game. It is to be further noted that only few win the game. In other words, it implies that successful entrepreneurs are those who think about their actions or behaviours that is, they are the introspective type.
2. The environment (social, economic and cultural) shapes human beings who act and interpret with different views and intentions. Transacting the school subjects in an entrepreneurial way would, in turn, help to create a positive future, which will be different from today. The learning areas should have a mixture of study, work and action in life situations. The curriculum should be a *home-school-societal* one rather than merely a school curriculum.
3. Choices in life and the ability to take part in democratic processes depend on the capacity to contribute to society in various ways. This is why education must develop the ability to work and engage in economic processes and social change. This calls to integrate work with education. This must be ensured that work-related experiences are broad-based in terms of skills and attitudes to inculcate a mental frame that encourages a spirit of cooperation. 'Work' alone can create a social temper.

4. One cannot be entrepreneurial or creative in a vacuum. Indeed, publicly also, there is a need for creating an atmosphere to encourage entrepreneurship among the general population. Therefore, it is an area of study, which needs to be implemented if it is to address public policy, the educational deeds and life choices of individuals.

Traditional classrooms and work environments may not be conducive to promote innovative and creative behaviour. Classroom instruction needs to be achievement oriented. This involves the use of various teaching methods and approaches that allow students to have control over their learning activities. Classroom activities should be designed in such a manner as to build self-confidence in students by focusing on positive ways to handle obstacles and learn from failures. These characteristics are experienced. A teacher cannot command a student to be creative. But, an atmosphere of the classroom should be such where creativity and the spirit of innovation are fostered. Learning to learn and the willingness to unlearn and relearn are important as means of responding to new situations in a flexible and creative manner. The entrepreneurship curriculum underlines the processes of constructing knowledge by learners.

Appendix A: Entrepreneurship Self-Assessment Scale

S. no.	Identified dimensions of entrepreneurship	Test items	Item nos.			
1	Risk taking	I would like to take risk in business if the chances of success lie between 30 % and 40 % The business I am thinking of is not really unusual	31	23	–	–
2	Persistence and hard work	I do not give up even in the face of difficulty I do not allow failures to discourage me I am not willing to work for more than eight hours a day	4	17	40	–
3	Use of feedback	I do not get upset when I receive negative feedback for my performances Mistakes and failures make me so depressed that I cannot learn from them I enjoy those activities where I get information on how good or how bad I am doing	6	11	36	–

(continued)

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S. no.	Identified dimensions of entrepreneurship	Test items	Item nos.			
4	Personal responsibility	I do not get excited with the favourable results if these are not due to my own efforts	13	20	25	–
		I do not enjoy working in a team as a leader; rather I like to be the member of the team				
5	Knowledge ability	I do not see the importance of reading newspaper every day	5	32	38	–
		I need not waste time and money on market research, if the product sells, I will go on producing				
		I shall attempt to become an expert in the product I am selling				
6	Persuasive ability	I do not find difficulty in convincing people around me to trust my capability to succeed	16	27	–	–
		My parents/friends/people around me doubt my capability to start and successfully handle the business				
7	Managerial ability	It is not necessary to be scientific and rational about management techniques as long as one has a will to do it	24	30	37	–
		I am able to lead a group only when people are willing to follow me				
		I do not find anything wrong in seeking expert advice on how I should manage my business				
8	Innovativeness	I find it difficult to come up with new ideas	9	12	33	39
		I am comfortable in tackling difficulties through my ingenuity and problem solving abilities				
		I find it difficult to perceive a need (foresee a problem) unless someone points it out				
9	Integrity and communication	I contribute in building up the image of my area/whole organisation	3	14	15	29
		During my free time (leisure period), I like discussing rumours among my friends				
		I try to maintain open communication channels with everyone				
		Setting a personal example of integrity and conscientiousness is not needed				

(continued)

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S. no.	Identified dimensions of entrepreneurship	Test items	Item nos.			
10	Emotional stability	I believe that I can learn from errors and that it should be reflected in my behaviour I like to take challenges in assignments and ensure their successful completion I think new ideas lead to disagreement, discussions and frictions	1	8	28	–
11	Motivation	I am action oriented and always meet the expected results of my work I have a lot of initiative and i am always ready for collaborations I do not believe in conveying appreciations and compliments	10	22	34	–
12	Decision making	I keep an eye on the implementation of plans and remove the blockages When faced with a sudden change in plan of action, I am able to think of alternatives and decide on a new situation I generally 'shoot down' the ideas of others I emphasise regular evaluation, measurement and review of performance	2	18	21	26
13	Divergent thinking	When I am dealing with a problem, I tend to be stuck easily When faced with a sudden change in plan of action, I am able to think of alternatives and decide on a new situation I do not find anything wrong in seeking expert advice on how I should manage my business	7	19	39	–

Appendix B: Problem Solving Adequacy Scale

S. no.	Test items	
1.	I like to define a problem in one than one ways	Strongly agree Agree Not sure Disagree Strongly disagree
2.	I like the company of creative people	Strongly agree Agree Not sure Disagree Strongly disagree
3.	I prefer to solve the problem by adopting playful activities	Strongly agree Agree Not sure Disagree Strongly disagree
4.	I encourage the original ideas of people around me	Strongly agree Agree Not sure Disagree Strongly disagree
5.	I like to discuss the alternate solutions to a critical problem	Strongly agree Agree Not sure Disagree Strongly disagree
6.	In a given situation, I prefer to first visualise and then communicate whatever my view point	Strongly agree Agree Not sure Disagree Strongly disagree
7.	I believe that new ideas should be experimented irrespective of the results they yield	Strongly agree Agree Not sure Disagree Strongly disagree
8.	I generally apply alternate ways of doing things	Strongly agree Agree Not sure Disagree Strongly disagree
9.	While reading, something new, I am more likely to remember the main ideas	Strongly agree Agree Not sure Disagree Strongly disagree

(continued)

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S. no.	Test items	
10.	To solve a particular problem various alternatives are preferable	Strongly agree Agree Not sure Disagree Strongly disagree
11.	When faced by a difficult situation, I persist and set the problems aside temporarily without giving up	Strongly agree Agree Not sure Disagree Strongly disagree
12.	I employ innovative ideas in solving problems	Strongly agree Agree Not sure Disagree Strongly disagree
13.	While making plans for the future actions, I prefer to use paper-pencil	Strongly agree Agree Not sure Disagree Strongly disagree
14.	I consider it a challenge to find a solution in different areas, whether they are major or minor	Strongly agree Agree Not Sure Disagree Strongly disagree
15.	Being restricted to one or few ideas does not satisfy me	Strongly agree Agree Not sure Disagree Strongly disagree
16.	I consider problems as opportunities	Strongly agree Agree Not sure Disagree Strongly disagree

References

- Asia-Pacific Centre of Educational Innovation for Development (ACEID). (1994). *Becoming enterprising-technical guidelines*. Bangkok: UNESCO Principal Regional Office for Asia and the Pacific.
- Baumol, W. J. (1993). Formal entrepreneurship theory in economics: Existence and bounds. *Journal of Business Venturing*, 8(3), 197–210.
- Brockhaus, R. H., & Horwitz, P. S. (1986). The psychology of the entrepreneur. In D. L. Sexton & R. W. Smilor (Eds.), *Encyclopedia of entrepreneurship* (pp. 39–56). Englewood Cliffs, NJ: Prentice Hall.

- Bygrave, W. D. (1989). The entrepreneurship paradigm (1): A philosophical look at its research methods. *Entrepreneurship Theory and Practice*, 14(1), 7–26.
- Cattel, R. B. (1950). *Personality: A systematic theoretical and factual Study*. New York: McGraw Hill.
- Confederation of Indian Industries and Technopak. (2009). Case for setting up sector skill councils in India. In *CII National Conference on Education: Linking Education to Employability*, New Delhi, India.
- Gandhi, M. K. (1939). *Educational reconstruction—A collection of Gandhiji's articles on the Wardha scheme along with a summary of Proceedings of All India National Educational Conference held Wardha, 1937* (pp. 48–49). Segoan, Wardha: Hindustani Tamili Sangh.
- Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10(4), 696–706. Retrieved March, 2012 from <http://www.jstor.org/stable/1258039>
- Goswami, A., Dalmia, N., & Pradhan, M. (2008). Entrepreneurship in India, National Knowledge Commission, Government of India.
- Government of India. (1966). *Education and national development*. New Delhi, India: Ministry of Education.
- Government of India. (1977). *Report of review committee on 'The curriculum for the ten year school' (Ishwarbhai Patel committee)*. New Delhi, India: Ministry of Education and Social Welfare.
- Government of India. (1978). *Report of the national review committee on higher secondary education with special reference to vocationalisation (Adishesiah Committee)*. New Delhi, India: Ministry of Education and Social Welfare.
- Government of India. (1986). *National policy on education*. New Delhi, India: Ministry of Human Resource Development.
- Government of India. (2011). *Working group report on secondary and vocational education: 12 FYP 2012-17*. New Delhi, India: Ministry of Human Resource Development.
- Kalam, A. P. J. (2004, August 30). In *Convocation Address: Second Vision for the Nation*. New Delhi, India: Jamia Millia Islamia. Published in *Times of India* on August 31, 2004.
- Kirzner, Israel M. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.
- Manimala, M. J., Gopal, M. V., & Sridhar, P. (2002). *Global entrepreneurship monitor India report*. Bangalore, India: NS Raghavan Centre for Entrepreneurial Learning, Indian Institute of Management.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- Rae, D. (2000). Understanding entrepreneurial learning: A question of how. *International Journal of Entrepreneurship: Behaviour and Research*, 6(3), 145–159. doi: 10.1108/13552550010346497
- Schumpeter, J. A. (1912/1934). *Theorie der wirtschaftlichen Entwicklung*. Leipzig: Duncker & Humblot. English translation published in 1934 as *The Theory of Economic Development*.
- The World bank. (2006). *Skill development in India-the vocational education and training system (draft)*. South Asia Region: Human Development Unit.
- Timmons, J. A. (1999). *New venture creation: Entrepreneurship for the 21st century*. Boston, MA: IRWIN McGraw Hill.
- Vaidya, S. (2004). A study to assess the incidence of entrepreneurship spirit among commerce stream students studying at higher secondary stage. New Delhi: Educational Research and Innovative Committee, (ERIC), National Council of Educational Research and Training (NCERT) (Unpublished).
- Volkmann, C., Wuppertal, B. U., et al. (2009). *A report of the global education initiative—educating the next wave of entrepreneurs—unlocking entrepreneurial capabilities to meet the global challenges of 21st century*. Switzerland: World Economic Forum.
- Young, J. E., & Sexton, D. L. (1997). Entrepreneurial learning: A conceptual framework. *Journal of Enterprising Culture*, 5(3), 223–248.

<http://www.springer.com/978-81-322-1788-6>

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Vaidya, S.

2014, XI, 105 p. 14 illus., Softcover

ISBN: 978-81-322-1788-6