Shipra Vaidya

Developing Entrepreneurial Life Skills

Creating and Strengthening Entrepreneurial Culture in Indian Schools

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Foreword

India is a country of contrasts, where wealth and poverty, rich and poor coexist, throwing a great challenge for achieving holistic development and growth. Over the decades since Independence, the texture of economic fabric in India has undergone transformation. A key challenge for the future is how to reap dividends of a youthful India. This could be possible through the right kind of education imparted through schools and colleges, which must aim to equip students with appropriate knowledge, skills and attitudes. Largely, the pedagogy of India's school education has been non-learner-friendly. We need to create excitement in the learning process so that the student has a happy learning and this experience continues throughout life.

Dr. Shipra Vaidya has made an earnest effort to design a teaching methodology that would help in creating and strengthening entrepreneurial culture within general school education. Entrepreneurship is concerned with the manner in which an individual creates and implements new ideas, responds proactively to the changing environment, and thus brings change for their own and society's betterment. The author has put in commendable effort to combine her sociological and psychological understanding to understand the construct of entrepreneurship. Based on identified skills required in an entrepreneur, she has evolved the teaching methods to cultivate entrepreneurial abilities among school children. Entrepreneurship, integral to the education system, is now widely accepted as an important skill. Efforts made by the author to develop a pedagogy and approach for entrepreneurship education as part of the regular curriculum are praiseworthy and will go a long way in cultivating an entrepreneurial zeal among students.

One should expect sequels to *Developing Entrepreneurial Life Skills* written by teachers, who will discover in their own classrooms effective new ways to inspire their students to think entrepreneurially.

G. C. Maheshwari

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About the Author

Shipra Vaidya is a professor of commerce at the National Council of Educational Research and Training (NCERT), New Delhi, India. She specialises in human resource management and entrepreneurship development. She is the author of *Educational Reforms: New Trends and Innovations in Educational Development* (2005) and *Towards Effective Management* (1996), both published by Deep & Deep Publications, New Delhi. In her recent work, she explores the epistemological framework of entrepreneurship narratives for schoolchildren. Her research mainly relates to promoting entrepreneurship education at different stages of school education in India. Her paper *Developing Entrepreneurial Life Skills* was awarded as the best paper by a newcomer at the Institute of Small Business and Entrepreneurship Conference in Glasgow (Scotland) in 2007 and published in a volume by the National Institute of Education, Singapore in 2008. She has published research articles in the *International Journal of Educational Research and Development*; the *SAARC Journal of Educational Research*; *Journal of Indian Education;* and the *Journal of Vocational Education*.

Chapter 1
Education for Life Skills in India: An Introduction

Abstract 'Can Entrepreneurship be taught', is a relevant question often raised than answered. The 'born versus made' argument in the context of an entrepreneur is vigorously debated. However, the weight of the argument tilts on the consensus that it is a blend of the two. The chapter explicitly focuses on developing behaviours, attitude and competence, associated with entrepreneurship which can be practiced, developed and learned. Entrepreneurial skills and attributes benefit society beyond its application towards business. The important attributes of entrepreneurship, i.e. creativity and spirit of innovation can be useful to everyone in their working responsibility and daily existence. Inherently, it is about life skills. The chapter presents 'work cum life skill' as a learning model for advancing entrepreneurship education at all stages of school education programme in India.

Over the decades, the pace of changes in all walks of human endeavours has been much greater in its magnitude and impacts. The educational and social demands have changed. This takes full cognisance of the needs of schooling and learning to respond to the social, cultural and economic contexts of people. This is generally agreed in education that curriculum development, renewal and its up-graduation is a continuing process to serve learners aspirations, accelerate social progress, extend modernisation, and ensure dynamism for international comparisons.

Education is a four-step process: first, identifying the potential of the child; second, drawing out as much potential as possible; third, determining how the skill developed through learning can help the child to stand on her and his own; fourth, removing the props and support so the child can face life with confidence and courage. How are people to decide on the best model of education for their children? Educationists are concerned whether our present school level education equip students with generic competencies and skills needed for a knowledge society. The major concern is how the subjects which children study in school relate

to the world of work. The objective of education, at the school level, is not just to prepare students for higher education. It should ensure well-rounded development of the child and lay the foundation for future employability by arming her and him with essential life skills, often also called core work skills. Since every child will one day enter the workforce, integrating life skills with classroom knowledge is vital.

The twenty-first century is characterised by a profound transformation in the Indian economy. Globalisation and communication technology have opened the four-walled offices with the World Wide Web forging global connections. New companies and newer technologies are coming into existence not only in India but throughout the world, at an unparalleled rate creating exciting opportunities for people willing to take risks and take advantage of these opportunities. The accelerated pace of scientific and technological progress has brought about a transformation in the employment pattern where career paths are increasingly nonlinear and the pursuit of knowledge interdisciplinary. Individuals have to continually handle, update, evaluate and apply knowledge to newer contexts. This requires an enterprising spirit propelling them to look on challenges as an opportunity, not an obstacle; an attitude that seeks creative ways to meet challenges instead of trying to block them. These rapid changes in employment patterns have formed a need to promote basic life skills among school children, such as, independent and creative thinking, problem solving, self-awareness, coping with stress, decision making, motivation for a challenging and achievable goal. Only then will a society of knowledge without bounds also be a society of learning without bounds. *Does education at the school level fit into this workplace revolution?* This poses a challenge for education and curriculum development. It also calls for rethinking in selecting and delivering instructional content and integration of new sources of information for developing competence with knowledge.

Life skills are not new, though the terminology is relatively recent and has a popular use from the late 1990s. Currently, life skills come under various nomenclatures across the globe where lifelong learning is a general *mantra*. For instance life skills in India (earlier known as vocational skills), Key Skills in the United Kingdom (earlier known as Core Skills) and Essential Skills in New Zealand. The Report of the Secretary's Commission on Achieving Necessary Skills (SCANS 1990) recommends generic skills as 'skills needed for work-readiness' and categorises them into functional skills, enabling skills and workplace scenarios.

The likeness of conceptual grouping of life skills draw common thinking and the transnational need for a set of work-related competencies classified into three categories.

1. *Basic* competencies are personal qualities necessary for undertaking any task. These include sensitivity, aesthetics, critical thinking, creativity and motivation for work, ability to understand method, tools and techniques and analysis.
2. *Systemic* competencies list overall understanding of working in changing contexts. These include developing a holistic perspective, changing and redefining one's role, taking the initiative and charting new paths.

3. *Interpersonal* competencies are the social aspects of any task. These include social skills, communication skills and ability to understand and allow another's view, capacity to work in collaboration within teams and to work in interdisciplinary contexts.

1.1 Vocational Skill Development Programmes in India

As a knowledge and information society, the Indian economy is undergoing rapid changes. The scope for entrepreneurship development and skill formation in India is tremendous, especially when there is widespread concern that acceleration in GDP growth, in the post-reform period, has not been accompanied by a commensurate expansion in employment. The problem, of course, is the skill crisis and mismatch in the quality of human capital. In addition, there is serious concern about high rate of school dropouts at different stages of school education. In India, educational statistics show that of all the children enrolled in Class I, a large number (approximately 49.7 %), drop out by the time they reach the secondary stage of school education. The dropout rate rises substantially after Class VIII (elementary stage of education), and further after Class X that is, secondary stage of education (MHRD, Government of India 2012). Those who join the workforce soon realise that they are not skilled or competent to carry on with tasks assigned. Gradually, therefore, they sink into the ranks of the unemployed. They search for jobs but do not have the competence or skills required for the jobs available. The result is a large pool of labour force also defined as 'surplus labour'.

The education plays a critical role in economic advancement of a country since it is the primary developer of human resource capital. Here, it is important to pinpoint how India has progressed towards skill development through vocational education. Vocational education in India refers specifically to vocational courses offered in schools under the centrally sponsored scheme, 'vocationalisation of secondary education',[1] rolled out in 1988. Prior to this, conventional models of vocational education and training existed under the technical institutions, the pharmacy

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[1] The centrally sponsored scheme of vocationalisation of secondary education provides for diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and provides an alternative for those pursuing higher education The scheme was implemented at the higher secondary stage of school education in 1988. It provides financial assistance to the states to set up the administrative structure; the conduct of vocational surveys, preparation of curricula, text books, workbooks, curriculum guides, training manuals; for teacher training programmes; for strengthening the technical support system for research and development; for training and evaluation, etc. The scheme has created infrastructure in 9,619 schools, building a capacity for about 1 million students studying vocational courses at the higher secondary stage. The grants released so far since the inception of the scheme are INR 7.65 billion. The objective of the scheme was to place 25 % of all students in classes XI–XII into vocational courses by the year 2000. This has not happened. Recent enrolment figures show less than 5 % of the students as being in vocational courses, which is a matter of serious concern for skill development initiatives in the country.

council, the nursing council, the dental council, the agriculture council and the Directorate General of Employment and Training (DGET) in the labour ministry.

Vocational training programmes in India also fall outside the formal schooling cycle. These trainings are offered under formal and non-formal sectors. The formal system follows a structured training programme supported by certificates, diplomas, degrees issued by central and state agencies, public sector undertakings and other institutions of repute. The non-formal follows the learning of skills through the experience of others, usually in an informal setup and not associated with any formal certification. Under the non-formal system, young people gain some marketable skills to carry out their ancestral trade, also known as hereditary skills. Vocational training in India is imparted by mainly two types of bodies: industrial training institutes (ITIs), and privately owned industrial training centres (ITCs). DGET regulates these ITIs and ITCs nationally and sets up policies for vocational training. Other government and private bodies providing vocational training in India include: Khadi and Village Industries Commission (KVIC), Council for Advancement of People's Action and Rural Technology (CAPART), Society for Rural Industrialisation (SRI), etc.

1.1.1 Youth Development and Entrepreneurship

India has been growing at a relatively high rate in the last few years. Unlike most of the developed economies, India is a young country with more than half of its population (about 63 %) currently in the working-age group of 15–59 years.

But this demographic dividend could prove to be its albatross if we are not able to engage our youth in creative pursuits by developing in them appropriate skills, including entrepreneurship skills. Vocational training is received by only 2 % of persons under formal vocational training and 8 % under non-formal vocational training aged between 15–29 years (NSSO 2006, p. ii). The culture of skill development does not command premium in India. There exists a deep-rooted misconception that skill-oriented training programmes are meant for those who could not perform well in their academic arena under the formal setup.

Providing quality education to our youth assumes greater meaning today when we consider the emerging challenges in Indian society. Currently, the *Sarva Shiksha Abhiyan* [SSA (Education for All programme)] and *Rashtriya Madyamik Shiksha Abhiyan* [RMSA (Universalisation of Secondary Education)][2] schemes are successfully implemented as India's main programmes for the universalisation of elementary

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[2] The SSA and RMSA are the Government of India's flagship programmes for achieving universalisation of elementary education and universalisation of secondary education, respectively, in a time-bound manner. The schemes seek to provide quality elementary and secondary education, including life skills. The primary focus of these schemes is to provide universal access, retention and quality school education through infrastructural facilities, appointment and continuous development of teachers and to provide computer education to bridge the digital divide with special focus on education of girls and children with special needs.

education and universalisation of secondary education, respectively. As a systematic initiative to make children learn academic and work skills effectively, the 'National Vocational Education Qualifications Education Framework' (NVEQF)[3] has been rolled out by the Government of India. The unified system of national qualification covers schools, vocational education and training institutions, and the higher education sector. The NVEQF is based on nationally recognised occupational standards of knowledge, skills and attitude that a worker should possess to perform a task. The present policy on vocational skills, competencies and assigning qualification standards also put forth the need for growth and development of the youth. The impact of globalisation and the rapid growth of new technologies has led to a reassessment of India's readiness to produce skilled manpower and remain competitive globally.

1.1.2   Integrating Basic Life Skills in the School Curriculum

Work experience and vocationalisation of education now have a history of decades in Indian education (see Chap. 2). There is a strong viewpoint that the Indian experience of vocationalisation has been a 'failure' and 'more failure'. It is, however, not necessarily so. Much has been achieved, though only on a selective basis. Reasons that have led to the lack of success in vocationalisation should be thoughtfully examined. Over the centuries, we have developed a cultural contempt for blue-collar jobs. Old attitudes and habits die hard. Educational institutions and society have to change their mindset towards manual work. Fundamental changes have to be effected in approach to make work experience and vocationalisation an integral part of the school curriculum.

How can this be achieved? We cannot do this by merely changing the curriculum and textbooks. It requires a fundamental change in the way teaching and learning happens and in the way knowledge is viewed in the school setup. The National Curriculum Framework (2005), recommends a 'work-centred-pedagogy' for restructuring the present school education system. The purpose of integrating *productive work* as a pedagogic medium in the core curriculum in schools, under conditions approximating to real-life situations, is to develop skills with other generic competencies.

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[3] As a part of the National Policy on Skill Development (2009), the National Vocational Qualifications Framework (NVEQF) is a descriptive framework that organises qualifications according to the levels of skills and competencies the learners must possess regardless of whether acquired through formal or non-formal education and training. Qualifications are made up of occupational standards for specific areas of learning units. The key elements of the NVEQF are to provide:

a. National principles for providing vocational education (VE) leading to international equivalency.
b. Multiple entry and exit between vocational education, general education and job markets and progression within vocational education.
c. Transfer between vocational education and general education, and partnership with industry/employers.

However, there seems to be some apprehension and queries: if it is to be integrated, how should this pedagogy become a part of the regular education system? The answer lies in integrating basic life skills across the school curriculum. The Delors Report 'Learning: The Treasure Within' (Delors et al. 1996) emphasises four pillars of learning: learning to know, learning to do, learning to be and learning to live together. It defines life skills as personal management and social skills, which are necessary for satisfactory functioning on an independent basis.

With this understanding, for educational purposes entrepreneurship is defined as t*he ability of the individual owning a wide range of essential skills and qualities to create, cope with, and enjoy creative contributions by transforming ideas into practical activities in a social, cultural or economic context.* This definition embraces capacities that include creativity, self-belief, energy, initiative, discipline and a positive attitude towards work with a keen wish for continued improvement. This definition includes organisations of all kinds. It is important not to confuse entrepreneurship with being 'businesslike' or 'professional' in the administrative and managerial sense. There are social entrepreneurs, educational entrepreneurs and entrepreneurs in non-governmental organisations. Different individuals will have a different mix of capacities for displaying and acquiring entrepreneurial behaviours, skills and attributes (see Table 1.1). The image most commonly associated with the entrepreneur in literature is that of an active person who gets things done, thinks strategically on her and his feet and harnesses resources imaginatively. Thus, as a life skill, entrepreneurship is recognised as an inclusive concept where subject disciplines as well as approach to learning can be explored. Entrepreneurship education, thus, provide a new and stimulating dimension for multiple skill formation among youths. When seen in the context of behaviour, skills and attitude it is regarded as a way of thinking and acting, i.e. a state of mind.

1.2 Challenges in Entrepreneurship Education

Today, the field of entrepreneurship is seemingly well established and recognised within academia. Many researchers and educationalists have turned their attention to it, yet the epistemological, pedagogical and practical challenges stay. The relevant question remains—'whether the study of entrepreneurship is growing or is it getting bigger' (Sexton 1988, p. 4). Here, we are not going back to the decades of researches carried out in study. The debate is therefore not new. In such a condition, it becomes still more difficult to resolve the nature of entrepreneurship as a teaching subject. The objective of this book is not to answer questions such as, Can entrepreneurship be taught? Is the inclination to behave entrepreneurially exclusive to certain individuals? The term 'entrepreneurship' is polysemous and is many times associated with autonomy, creativity, innovation, risk taking or the act of venture creation. The purpose is to translate these arguments into strengths towards renewed and mature methods of teaching entrepreneurship about objectives, content and pedagogical methods.

Table 1.1 Behaviours, attributes, and skills associated with entrepreneurship development

Entrepreneurial behaviours	Entrepreneurial attributes	Entrepreneurial skills
1. Opportunity seeking and grasping	1. Achievement orientation and ambition	1. Creative problem solving
		2. Persuasion
	2. Self-confidence and self-belief	3. Negotiation
2. Taking initiatives		4. Selling
	3. Perseverance	5. Holistically managing business
3. Solving problems creatively	4. High internal locus of control (autonomy)	
	5. Action orientation	6. Strategic thinking
4. Managing autonomously	6. Preference for learning by doing	7. Intuitive decision making
5. Taking responsibility and ownership		
6. Seeing things through	7. Hard-working	
7. Effective network to manage interdependence	8. Determination	8. Uncertainty
	9. Creativity	9. Networking
8. Putting things together creatively		
9. Using judgement in taking calculated risks		

Source Irdale (2002), p. 2

The world is full of entrepreneurs and enterprising people. Entrepreneurs and entrepreneurial behaviour is found everywhere: business, obviously; the community, specifically, individual initiative normally termed social entrepreneurship or civic entrepreneurship; science and technology; theatre and arts; sports; military service; exploration and adventure. Entrepreneurship extends itself far beyond the small business owner, with which it is ubiquitously linked. Herein, lies an important paradox. Thomas Edison did not discover electricity, but he used it to provide products that improved people's lives. Similarly, and later, Henry Ford did not invent the motorcar but was the first to make it affordable for fewer affluent consumers. These people (entrepreneurs) saw a real opportunity to do something that would make a difference, that is, 'All *progress, all success springs from thinking* (Bolton and Thompson 2001). What do we see in these legendry names from enterprise? We can sometimes see the potential of a real opportunity driven by an inner need to succeed and to make a difference in some way or the other; entrepreneurs focus on the opportunities and follow them with great dedication and courage in the face of opposition and setbacks. We might say that they are 'off the scale' about opportunity and people. Having wealthy parents and the benefit of a university education never seems to have been a precondition for entrepreneurial success—but the ability to learn from the 'university of life' is critical.

Is 'teaching' proper for these cases? Hopefully not! To 'teach' means to instruct, impart knowledge and skills for a certain action or a frame of mind. Given the multidimensional nature of entrepreneurship, it is not possible to create an entrepreneurial mindset through teaching which makes learners passive

recipients of information. 'Educating', on the other hand, develops the inherent capacity and abilities for mental and moral growth of learners. Thus, 'teaching' and 'educating' have different meanings and do not serve the same objectives. The notion of 'education' is more suitable for developing learners' minds, personal growth and encouraging them to act in an entrepreneurial way. 'Teaching' is more appropriate for the transfer of facts and theories about entrepreneurship. The blend of 'teaching' and 'educating' is must for bringing a shift from teacher-centric (didactic) pedagogy towards the desired pedagogy. This returns us to the key questions every educator must ask: What (content), Why (objectives), Whom (target audience), How (pedagogy)—regarding the content and form of entrepreneurship programmes at the school stage. Thus, the challenges in creating this new model are research and curriculum development. Four significant dimensions need be essentially considered when one talks of curriculum development for entrepreneurship education. These are discussed below.

1.2.1 Determination of Educational Directions

In schools, there are boys and girls with varied needs such as high academic achievers, dropouts, those heading towards higher education, those likely to engage in family business, the disabled and special groups. The school curriculum objectives are more likely to concentrate on personal development, cross-curricular activity and socialisation with the community.

The challenge in bringing entrepreneurship into the classroom lies in allowing young people to experience and feel rather than just learn about it in conventional sense. This emphasises a pedagogy that encourages learning by doing; exchange; experimentation and experience; risk taking and positive mistake making; creative problem solving on and role-playing and interaction with the outside world. Therefore, the focus should be on 'learning *for*' entrepreneurship rather than 'learning *about*' entrepreneurship.

1.2.2 Handling Instruction Programmes Through Selection, Ordering, Principles and Procedures

Another major challenge is teacher education and expanding the teacher's role effectively. Shifting from traditional role of a teacher to act as a facilitator in the process of child's learning is not a small step. Some teachers have been using such enterprising methods as learning vehicles. However, 'enterprising' approaches earn a status of 'progressive' and 'trendy' educational methods normally opposed by those who look for more discipline in their classroom delivery. This prejudice needs to be overcome before substantial progress can be made in advancing entrepreneurship education.

This calls for a major change in pre-service and in-service teacher preparation programmes for acquiring new skills, competencies and techniques. Educators and facilitators must create an open environment of trust in which students learn from both successes and failures. An entrepreneurial teacher must learn the art of involving children in taking up personal responsibility for the development of their learning. This pedagogy requires experiential learning to help sharpen the child's ability to think clearly, critically and reflectively.

1.2.3 Selecting the Pattern of Curriculum Organisation

The Twenty-first century has offered many unprecedented challenges to the Indian school education. One of these is the emergence of a learning society. Multiplying sources of information and transformation in working conditions require flexibility and the use of new technologies. Responding to the challenges raised by globalisation for educational processes, it is becoming essential to define a new and broader scope for school education. School curricula must adapt to the needs of different socio-cultural groups and promote national social cohesion of the country.

There exists a gap between the content and living experiences of students in India. Education in its real sense should prepare students to confront multifarious challenges that they bound to face in the society. To do so, education needs to be intimately linked with life skills. Life skills are the abilities for adaptive and positive behaviour. Knowledge and competence in these skills enables us to deal effectively with the demands of everyday life and social needs.

Education without skills is a rootless exercise. Life skills provide support and act as an anchor. It is, therefore, important that curriculum should take note of this fact and explore ways to introduce students to the broad spectrum of life skills education.

1.2.4 Initiating Changes in Curriculum

Consistent with these criteria, there is a need to operationalise entrepreneurship education at different stages of school education as an objective, an approach, and a specific subject about:

1. The degree to which entrepreneurial learning is regarded as co-curricular activity rather than an intrinsic part of school curriculum.
2. The content and form of integrating entrepreneurship at different stages of education and its progression (refer Chap. 3).
3. The measures for evaluating entrepreneurial behaviour over a period of time. Evaluating entrepreneurial behaviour, attributes and skills is again a formidable task in entrepreneurship education (see Chap. 6).

1.3 About the Book

This book treats entrepreneurial skills as a synonym to life skills, that is, a child's capacity to play her/his role as a citizen, develop a strong sense of self worth and accountability and, above all learn how to meet challenges of everyday life. Having seen entrepreneurship as a life skill, it is essential to ensure its quality teaching and to be aware of the barriers that exist. There is a need to: (1) define entrepreneurship in a broader sense; and (2) include other spheres apart from economics to enable learners to explore their future trajectories with a critical mind and with social concern. Focus on developing a specific skill related to a vocation or livelihood is important whether the concerned student intends to aim for the skill-specific vocation or not in future lives. An important characteristic of life skills is that they are temporal and contextual in nature. In this sense, entrepreneurship emerges as the bed-rock of all livelihoods and work situations.

While pursuing my interest in advancing entrepreneurship, It was my privilege to interact with practitioners and researchers worldwide which helped me understand how entrepreneurship can be taught or, more importantly be learned. The works of Robert Smith (Aberdeen Business School), John Brains (Durham University), Wil Clouse (Vanderbilt University), and David Rae (Lincoln Business School) have guided and strengthened the theme of this book. Institutions and academic associations like the Entrepreneurship Development Institute and National Institute of Entrepreneurship and Small Business Development in India; United States Association for Small Business and Entrepreneurship in the USA; the Institute of Small Business and Entrepreneurship, UK, Hong Kong Institute of Education, Hong Kong; and NGOs working for entrepreneurship development in New Delhi, India, namely Dhriiti, Pravah, and Azad Foundation, extended enough opportunities to concretise the interconnectivity and link between entrepreneurship development and education in a wider setting. In a way learning is travelling rather than arriving, while passing the torch to others waiting in the wings.

The book examines an entrepreneurship-centred curriculum for entrepreneurship education at the school level,[4] on one hand and, on the other hand, serves as a core

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[4] School education in India is categorised into three stages. These are:

a. The elementary stage, which comprises primary education: (Classes I–V) and upper primary education (Classes VI–VIII), vide the constitutional amendment (the Right to Education Act 2009) making education a fundamental right;

b. The secondary stage (Classes IX–X).

c. The higher secondary stage (Classes XI–XII). School education up to Class X, i.e. the elementary and secondary stages, are together called general education, where the learner is given an opportunity to study all subjects, namely, languages, social sciences, sciences and mathematics. The disciplinary routes emerge at the higher secondary stage in the form of three streams, namely, the sciences, humanities, and commerce as academic courses and vocational education as a distinct stream.

text to provide new insights under the school education programme. It facilitates
the vigour of being pervasively enterprising into the entire scope and sequence of
general school education. Readers will see in the subsequent chapters how 'work
cum entrepreneurship education' can bring out new ways of engagement in the
learning environment.

The book is organised into two parts. Part I provides theoretical and meth-
odological discussions by problematising the very idea of developing entrepre-
neurship skills and competencies among school children. To understand how
entrepreneurship can be taught, it presents the epistemological framework for
integrating entrepreneurship in an educational setting through grounded theo-
retical base in both national and international contexts. Chapters 2 and 3 titled
Entrepreneurship and Skill Development and Methodological Framework
for Entrepreneurship Education, respectively, deepen our understanding for
integrating entrepreneurship in various school subjects at different stages for
school education. Finally, it rolls out a roadmap for entrepreneurship educa-
tion as an objective, an approach and as a specific subject for quality school
education. Even though the importance of entrepreneurship development in the
economic context is overstressed, this part captures a broad and inclusive view
of entrepreneurship in an educational setting drawing conclusions and further
lines of inquiry.

Part II presents an entrepreneurship-centred curriculum for school education.
It suggests a sequence of curriculum delivery and evaluation thereof (see Chaps. 4
and 6). The curriculum is an outcome of an action research project validated in
an educational camp situation. As noted, the majority of children drop out at the
lower secondary stage of school education and remain bereft of essential skills
and competence for employability, livelihood and well-being (see Fig. 2.1). The
research question, 'Can entrepreneurship education be brought down to the ele-
mentary stage of school education?' guided the project. Hence, the age group
11–14 years was ideal for carrying out the study.

As a learning model, the curriculum provides an environment encouraging
children to extrapolate learning from their experiences and ability to apply them,
as much as the entrepreneurs do. It is based on formulaic themes like taking ini-
tiative, how entrepreneurs think, what entrepreneurs look for: an opportunity,
using senses for finding opportunities, reaching out to the target customers; and
developing a plan of action. These themes offer opportunities to develop skills,
attitude and behaviours associated with entrepreneurship. This part also lays spe-
cific emphasis on writing stories of entrepreneurship for young children based on
identified themes. There is an obvious dearth of entrepreneurial narratives specifi-
cally written for children. Whatever exists in literature depicts an entrepreneur as
an adult male. It is unlikely the ageing entrepreneur will inspire many children to
emulate him.

Piaget (1952)[5] shaped our understanding of the thought processes of children. Children search for reason and often ask questions related to causality and justification. This is equally important to the entrepreneurial construct because children do not face it during their formative years and thus never ask the important 'how' and 'why' questions. Stimulating such questions at an early age encourages children to think about the schematic role of entrepreneurs in the society. To inspire them, it may perhaps be necessary to tell them stories centred on gender and age specific role models. Children yearn to hear stories which also makes story-telling a powerful language teaching tool (see Chap. 5).

The present book is specifically written for school teachers with an overall objective to promote entrepreneurship for strengthening school education. The book will also be useful to practitioners and researchers in entrepreneurship education. The focus of the book is on how to access, analyse and exploit information and transform it into new knowledge. This ability is based on critical enabling and core work skills. The former includes personal effectiveness, i.e. self-esteem, goal setting and motivation skills for personal and career development. Core work skills include career choices and opportunities to channelise children's talents, skills to assume the responsibilities of adulthood by preparing them to enter work of those keen minds that we as a people have always cherished.

Seen in this light, entrepreneurship development (or enterprise education) becomes an intimate and inseparable aspect of human resource. It is not just confined to industrial and economic development nor is it meant for any personal financial growth. It releases enormous latent potential, usable for personal growth and for the community's good. A significant goal of entrepreneurship education is indeed to develop individuals who are active, purposeful, creative, self-confident and capable of improving their quality of life. Acquiring such competencies fortifies individuals for active existence throughout life. It is thus, emphasised that

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[5] Piaget views on how children's mind works and develops have been influential in educational context. He emphasises four stages of cognitive development:

Sensory motor stage (birth to 02 years)	i. Differentiate self from object
	ii. Recognise self as agent of action and begins to act
	iii. Achieves object performance
Pre-operational stage (2–7 years)	i. Learns to use language and represent objects by image and words
	ii. Thinking is still ego-centric i.e. has difficulty in taking views of others
	iii. Classify objects by single feature (by colour, size, texture, etc.)
Concrete operational stage (6–12 years)	i. Think logically about objects and work
	ii. Classify objects according to several features
Formal operational stage (11 years and above)	i. Can think logically about abstract propositions
	ii. Test hypotheses systematically

entrepreneurial skills must be cast in a conscious and responsible framework of social and moral tie, as an integral unit of general school education.

In conclusion, there is a case to be made for entrepreneurship education offering a new way of looking at learning: *that learning about an idea is not the same as living with that idea*. Entrepreneurship is viewed as a means to feel and think about a way of life. Care and caution must be our guide if we are to provide for a better future for our country, if we are to provide for a better future for our children—then we must undertake the task of integrating entrepreneurship into the fabric of their lives. Journey on a creative road will be a risky business. 'Being enterprising' is dynamic, contextual, procedural and dialectic. It disciplines our imagination and reorients our vision. Knowledge of facts, of course, will be necessary but clearly facts alone will not be sufficient. Education has to be tempered with the 'desire to know' and the follow-up of the hypothesised ideas to their logical ends.

A sage of the Talmud (the fundamental code of the Jewish Civil and Canon Law) said that God could have created a plant that would grow loaves of bread. Instead, HE created wheat for us to mill and bake into bread. Why? So that we are His partners in completing the work of creation. Education is similar. Books and lessons have to create something edible and tangible to enable the child develop a sense of participation in the process of growing up.

The present book shows a way but it is not the only way. Let each of us learn *how to think entrepreneurially* for which there is no prescribed curriculum.

The whole argument may now be concluded in the words of Mahatma Gandhi during his discussion with teacher trainees in 1939:

…(O)ur education has got to be revolutionised. The brain must be educated through the hand. If I were a poet, I could write poetry on the possibilities of the five fingers. Why should you think that the mind is everything and the hands and feet nothing? Those who do not train their hands, who go through the ordinary rut of education, lack 'music' in their life. All their faculties are not trained. Mere book knowledge does not interest the child so as to hold his attention fully. The brain gets weary of mere words and the child's mind begins to wander. The hand does the things it ought not to do, the eye sees the things it ought not to see, the ear hears the things it ought not to hear, and they do not do, see or hear, respectively, what they ought to. They are not taught to make the right choice and so their education often proves their ruin. An education which does not teach us to discriminate between good and bad to assimilate the one and eschew the other is a misnomer (Gandhi 1979, Vol. 75, p. 30).

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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.

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 dimentionalise 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	Persuasive ability	Managerial ability	Innovativeness	Integrity and communication	Emotional stability	Motivation	Decision making	Divergent thinking	Problem solving adequacy

Personality variables

V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14
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

V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14
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

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[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. Cattel'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 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	No personality variable found significant on this factor	–	4.18	13.5
Factor 2	Motivation	Reserved versus outgoing Affected by feelings versus emotional stable Shy versus venturesome	–	2.01	5.08
Factor 3	Knowledge ability	Less intelligent versus more intelligent	i. Family background ii. Stream of study	1.58	4.67
Factor 4	Personal responsibility Managerial ability Decision making	No personality variable found significant on this factor	–	1.45	4.44
Factor 5	None of the dimensions of entrepreneurship significant on this factor	i. Phlegmatic versus excitable iii. Obedient versus assertive iv. Sober versus happy-go-lucky	–	1.38	4.11
Factor 6	None of the dimensions of entrepreneurship significant on this factor	i. Expedient versus conscientious ii. Tough-minded versus tender-minded iii. Vigorous versus doubting	–	1.27	3.88
Factor 7	None of the dimensions of entrepreneurship significant on this factor	i. Reserved versus outgoing ii. Affected by feelings versus emotional stable	–	1.20	3.68

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 Commission[2] 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

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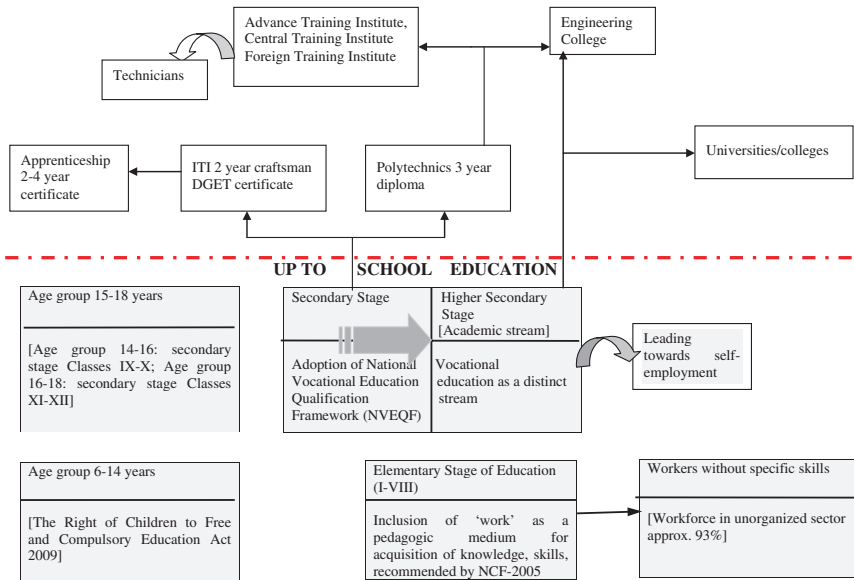
Fig. 2.1 The structure of vocational and technical education in India. *Source* Adapted from World Bank (2006), p. 35

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 India[4]

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.

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[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
Education and training	
Large pool of manpower	Emphasis on entrepreneurship is lacking in the education sector
Strong educational base in the country	
High quality management education which can be branched out to entrepreneurship	Education is not practice-based
	Poor literacy rates in the country
	Poor quality of school education
Cultural norms	
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: *Marwaries, Sindhies*) 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
Entrepreneurial capacity	
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
Government policy	
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
Social status and esteem	
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 over-stressed, 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 %	31	23	–	–
		The business I am thinking of is not really unusual				
2	Persistence and hard work	I do not give up even in the face of difficulty	4	17	40	–
		I do not allow failures to discourage me				
		I am not willing to work for more than eight hours a day				
3	Use of feedback	I do not get upset when I receive negative feedback for my performances	6	11	36	–
		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				

(continued)

(continued)

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)

(continued)

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	1	8	28	–
		I like to take challenges in assignments and ensure their successful completion				
		I think new ideas lead to disagreement, discussions and frictions				
11	Motivation	I am action oriented and always meet the expected results of my work	10	22	34	–
		I have a lot of initiative and i am always ready for collaborations				
		I do not believe in conveying appreciations and compliments				
12	Decision making	I keep an eye on the implementation of plans and remove the blockages	2	18	21	26
		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				
13	Divergent thinking	When I am dealing with a problem, I tend to be stuck easily	7	19	39	–
		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				

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)

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

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Chapter 3
Methodological Framework for Entrepreneurship Education

Abstract Entrepreneurship as behaviour, skill and an attitude requires an enabling environment for its integration with various scholastic subjects that is, language learning, social science, science and mathematics. Given the multi-dimensional nature of entrepreneurship, there is a need to plan a methodological framework about the content and form for cross-curricular learning and integration. Bringing entrepreneurship in the school curriculum and its progression, require a substantial understanding about educational objectives, context, pedagogy and assessment. The chapter discusses inclusive use of storytelling technique, setting up entrepreneurship clubs and other strategies for linking the school and out of school experiences as a part of school improvement programmes and quality education.

Entrepreneurship as a pedagogical medium is governed by the developmental stage of the child. This consideration includes the psychological age of a child, physical strength and the skill level. The tasks undertaken by a child do not necessarily indicate his/her future profession or livelihood. Indeed, it helps develop a wide range of skills and generic competencies from the elementary stage to the higher secondary stage of school education. Therefore, as a first step, acquisition of entrepreneurial abilities by a vast majority of students is likely to be a widespread challenge at the school level. Entrepreneurship education is a union of subjects, approached by developing core work and life skills. However, there hardly exists any apparent relationship between entrepreneurship and knowledge gained at school. So, care and caution is needed while carrying the debate on advancing entrepreneurship education, at the different stages of school education programme. Lastly, it is the collaborative partnership among the three groups

where the *learner* comes happily to school to acquire core competencies at the hands of *teachers* whose knowledge, skills and attitudes are assessed against reasonable standards by *educational administrators*. In this collective effort, no one is superior or inferior; all are equally working towards a common goal, that is, the welfare of the nation.

3.1 Stages of School Education

At the *primary stage* (Classes I–V), the child is engaged in a joyful exploration of the world and in harmonising with it. The objective at this stage is to nurture the curiosity of the child about the world and help him/her in acquiring the basic cognitive and psychomotor skills through observation, classification and inference. At the *upper primary stage* (Classes VI–VIII), the important components of pedagogy include group activities, discussions with peers, community surveys and display through exhibitions. Systematic experimentation as a tool to verify theoretical principles, and working on locally significant projects form an important part of the curriculum at the *secondary stage* (Classes IX–X). At the *higher secondary stage* (Classes XI–XII), the core topics of disciplines, the recent advances in the field, are dealt with suitable rigour and in depth (National Curriculum Framework 2005). In this context, the proposed epistemological frame for promoting entrepreneurship education at different stages of the school education programme is discussed in the following pages.

3.1.1 The Elementary Stage of Education

The elementary stage of education (Classes I–VIII) is a part of compulsory general education in India (vide the Constitutional amendment making education a fundamental right[1]). Its objectives are much more than just preparing students for higher education. Children at this stage begin to recognise the cause–effect and structure–function relationship. The teaching and learning has to be strengthened and concretised at this stage. Instead of loading children with information, efforts should be made to learn key concepts which cut across all disciplines. This causes curiosity and raises awareness and understanding of the local and global concerns in areas like health, hygiene, family welfare, environment, etc. Table 3.1 discusses

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[1] The Right of Children to Free and Compulsory Education Act, 2009, popularly known as the Act 2009, provides every child in India in the age of 6–14 years the right to free and compulsory education in a neighbourhood school till they complete elementary education [Sect. 3 (1), Chap. 2, RTE Act 2009].

Table 3.1 Integrating entrepreneurship education at the elementary stage in schools

Objective 1	Students assuming the responsibility for their own learning (exploration or experiential and participatory) for future development
Objective 2	Development of entrepreneurial attitude and spirit
Intended outcomes and students' entrepreneurial competencies	i. A positive, responsible attitude towards learning which is displayed in their behaviour
	ii. Basic understanding of 'work' (dignity of labour)
	iii. Development of basic life skills

the proposed epistemological frame for integrating entrepreneurship education at the elementary stage of school education in terms of derived objectives and intended outcomes.

3.1.1.1 Specific Initiatives

Entrepreneurship Values and Storytelling: Language learning is important for the learner's emotional, cognitive and social development. Language teaching aims at encouraging independent thinking, free and effective expression of opinions and logical interpretation of present and past events. It motivates learners to say their way and nurtures creativity and imagination. This gives language learning a central place in the total educational process. Effective communication skills are central to business activities. The language teacher has a potential to teach about regional differences within the country about food, tradition, behaviour pattern, business etiquette and greeting, customs negotiation and telephone conversation. The teacher is also able to use current business magazines and newspaper articles about present-day entrepreneurs and share them in the class in the form of short stories, role-play and dramatisation. This enables students to learn new vocabulary in the process.

Storytelling and Entrepreneurial Abilities: Storytelling is a long known and accepted art, especially suited for student's understanding. Storytelling is appealing at all ages. Nonetheless, beyond imagination and the power of listening and speaking is the ability to create artistic images. Storytelling and its use has been recognised as one of the powerful tools available where effects reach far beyond the language curriculum in schools. In a fast-paced media-driven world, storytelling can be a nurturing way to remind children that their spoken words are powerful, that listening is important and that clear communication between people is an art. Considering the importance of storytelling in child development, psychologists have promoted the positive effects of reading and telling stories for decades. As a learning tool, stories have a potential to show a character solve her and his problems in a practical way. These influences the way children think and behave because they like to read and hear them over and over again.

Smith (2002) pointed out the importance of entrepreneurial narratives to promote entrepreneurial spirit effectively among children. Exposure to narratives is seen as a process of social construction and reconstruction that begins during childhood. Steyaert and Bouwen (1999) elaborated on narrative approach to entrepreneurship as an emerging theme in entrepreneurship research.

Setting up Entrepreneurship Clubs: An 'Entrepreneurship Club' is a simple term. Given the will and the opportunities, it can become a nucleus of general education and link classroom practices within the community. The various results of advancing entrepreneurship education with vocational ambition mentioned in this book can be achieved through formal and informal activities of the entrepreneurship club. Our dilemma is not to split hairs on the objectives of the entrepreneurship club. It is to translate them into action. The general aims of the entrepreneurship clubs should be as follows:

i.   Cultivating the qualities of taking the initiative and of leadership, essential for entrepreneurship behaviours and attitudes.
ii. Encouraging critical thinking and problem-solving skills.
iii. Involving students in entrepreneurship activities, including social engagement.
iv. Providing outlets for enterprising talents.
v.   Providing access to career information.

There is no fixed list of activities of the club. As far as possible, these should be based on the student's interests and aptitudes. A teacher should throw in varied ideas off and on. In other words, the teacher should not force his/her own ideas on students. Entrepreneurship club activities are and should remain voluntary. Examples of activities which can be conducted by the club may include survey of community resources, organising exhibitions and participation in local fairs.

One of the teachers from the elementary stage can manage the club. An informal meeting of the students can be called to emphasise the importance of the club. The constitution, formation and, later, managing the club is in itself an entrepreneurial experience, which will become an innate nature of the learners in all their future endeavours.

3.1.2 The Secondary Stage of Education

The secondary stage of education (Classes IX and X) is a period of intense physical change and formation of identity and when the foundation for employability is laid. During the crucial years of the secondary stage, children begin to decide how they should channel their talents, skills and learn to assume the responsibilities of adulthood. In this context, the gradual inclusion of vocationally-oriented skills, as a part of exposure to 'work' is an important aspect of an inclusive curriculum. The ability for abstract reasoning and for logical thinking develop,

Table 3.2 Integrating entrepreneurship education at the secondary stage in schools

Objective 1	Students using their academic competencies in an entrepreneurial way
Objective 2	Development of the entrepreneurial attitude and spirit
Intended outcomes and students' entrepreneurial competencies	i. Attitude building: understanding the role of the entrepreneur in society
	ii. Business-related competencies: basic market principles, business language, price, etc
	iii. Personality-related competencies: taking the initiative, being creative, assuming responsibility, experimenting, exploring

allowing the possibility of deep engagement with understanding and generating knowledge. The courses at this level aim at creating an awareness of the various disciplines and introduce the children to the possibilities and scope of study in them. In the process, they also discover their own interests and aptitudes for the work-related knowledge and skills they wish to continue later. Table 3.2 discusses the proposed epistemological frame for integrating entrepreneurship education at the secondary stage of school education in terms of derived objectives and intended outcomes.

3.1.2.1 Specific Initiatives

Entrepreneurship and Social Science Curriculum: Social science is an inter-related study of diverse concerns of the society. Within school, it includes a wide range of content, drawn from the disciplines of geography, economics, history and political science. The primary objective is to help learners develop a critical understanding of their own society as well from others for informed and reasoned decisions (Table 3.3). The social science curriculum provides different dimensions of human society. Social science aims to provide learners with essential knowledge, skills and attitude necessary for personal development and for becoming a contributing member of the society. The social science teacher has a potential for inculcating entrepreneurial proficiencies by identifying key economic factors that influence business operations. For instance:

i.   Cultural heritage and development of business and economy in the historical context; indulge in local studies of occupations, workforce, natural resources, habitats, modes of transport, sources of water and energy, biodiversity: creating biodiversity register, markets, official development agencies and their programmes.

ii. Study the demographics of the population (for example, within a five-mile radius of the school) or take pictures of the businesses. The information so collected can be compiled in the form of a directory about types of goods and services, locations and types of businesses. Later on, the teacher can also discuss the importance of location for carrying out particular businesses.

Table 3.3 Exemplar: industry and growth (understanding industrial development and economic growth)

Objectives of the activity

1. Major industries in the locality (State)
2. Categorise industries by their locality
3. Propose potential industries for locality
4. Foresee the success or failure of an industry
5. Link industrial development with economic development

Vocabulary learned

Business and trade	Money and Investment
Service/industry units	Production function
Economy	Environmental concerns
Employment potential	Sustainable development

Functional understanding
The students are able to relate to:

1. Industry as an economic activity concerned with the production of goods or provision of services
2. Classification of industries: small-scale and medium enterprises; large-scale; private, joint and cooperative
3. The importance of location for industries
4. Potential for employment generation
5. Industrial development implying economic development of the country

Skills

1. Recognises the need for establishment of industry
2. Understands the impact of industrialisation on environment
3. Detects harmful consequences of rapid industrialisation
4. Identifies potential of industrialisation in urban, rural and tribal areas
5. Realises the scope of employment generation through industrialisation

Attitudes

1. List businesses for their locality on the basis of natural resources available for sustainable development and income generation
2. Plants and animal based products e.g., leave wood, leather etc
3. Minerals e.g., alumina, iron ore
4. Products from sea
5. Forest produce, e.g., wood, timber, roots
6. Observe employment potential, technologies used, and investment: infrastructure and financial
7. Improve their perceptions pertaining to the following:

• Name five industries they consider suitable for their locality, giving reasons
• The government of your State wishes to establish 20 industries for the economic development of rural areas. Suggest at least five varieties of industries and plot them on the map of your State

iii. Study of *gram panchayat*s,[2] primary health centres, block or district development offices, police stations, post offices, cooperatives, banks, courts, mandis (weekly markets), etc.

iv. Prepare a project report about the natural resources available in the community that might spawn new businesses. Nature-based entrepreneurship is an environmentally responsible entrepreneurship based on resources and experiences offered by nature. It helps the present generation to realise that it does not have to leave their community to find employment. It has to be motivated to create its own opportunities and lead a fulfilling, independent life. Nature-based entrepreneurship is regarded as an environmentally responsible entrepreneurship based on resources and experiences offered by nature. In entrepreneurship, sustainable development is a significant cause and it must be considered in an ecological way.

v. A social science resource room set up in schools motivates students to understand the social realities to the fullest extent. Students explore the local surroundings and observe artisan communities engaged in local skills and materials. The school can also organise 'social science day' and students may speak on the emerging social issues on socio-economic development and critically examine challenges such as poverty, child labour, destitution, illiteracy and various measures of inequality.

vi. To strengthen the spirit of entrepreneurship, the school may also operate a mini-bank where the school children can deposit or withdraw their mini-savings. Children can learn about the cooperative movement by running a cooperative themselves. This will build confidence in them for owning a small venture by them.

Entrepreneurship and Science Curriculum: The teaching of science includes posing problems, refining and defining productively, setting up theory with the help of controlled experiments, new solutions, discarding personal opinion in case of conflicting evidence. These initiatives are contextualised to the child's experience and understanding, and followed up later to promote the quality of reasoning as children go up the school ladder, and should not be left to chance. Science teachers should, in fact, make a special effort to develop entrepreneurial attitudes. The

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[2] *Gram panchayat*s are local self-governments at the village or small town level in India, and the *sarpanch* is in charge of it. The *sarpanch* has the responsibilities of

  i. Maintaining street lights, construction and repair work of roads in villages and also the village markets, fairs, collection of tax, festivals and celebrations.
 ii. Keeping a record of births, deaths and marriages in the village.
iii. Looking after public health and hygiene by providing facilities for sanitation and drinking water.
iv. Providing free education.
 v. To organise meetings of the *gram sabha* and *gram panchayat*. A *gram panchyat* consists of between 7 and 17 members, elected from the wards of the village, and they are called a *panch*. People of a village select the *panch*, with one-eighth of seats reserved for female candidates. To establish a *gram panchyat* in a village, the population of the village should be at least 500 people of voting age.

Table 3.4 Exemplar health

Objectives of the unit

1. Maintaining equilibrium for health in our home, school and surroundings
2. Chalking out the daily diet chart
3. How can we establish an active health centre in our school?

Vocabulary learned

Body (a composite of various organs and systems)	Growth and Adaptability
Toxic matter	Food and Nutrition
Intoxicants	Germs
Antibiotic substances	Immunity against diseases
Prevention treatment	First aid, general care and health rules

Functional understanding

1. Growth is a normal process. Every individual differs in growth. Adequate nourishment, clean environment promote favourable growth
2. Planning for community hygiene programme
3. Healthy individuals act as pillars and support healthy nation-building and only a healthy nation can make progress

Skills

1. Recognises common diseases
2. Ability to select balanced diet
3. Detects harmful cosmetics
4. Measures body temperature and maintains a temperature chart

Attitudes

1. Giving priority to the principles of healthy living
2. Changing personal and social food habits for maximum nutrition
3. Respecting and co-operating with health workers and health agencies by contributing towards improving health of the community
4. Providing necessary voluntary services, where necessary

exemplar on health given in Table 3.4 brings home, school and community together by finding answers to problems through direct observations, acceptable experimentation, argumentation on facts, proof in terms of cause and effect relationships and testing of knowledge. Especially in young children, these manifestations need to be further concretised with well-planned teaching and meaningful activities.

Entrepreneurship and Mathematics Curriculum: Mathematisation of the child's thought processes is an objective for teaching mathematics in schools. In this sense, the role of mathematics is to inculcate skills of quantification of experiences around learners. The subject helps in developing other disciplines and vocations which involve analysis, reasoning, testing and building arguments about their vitality and for developing the art of questioning. Refer to the case of Karad and Walmikinagar, the rural schools in Maharashtra described in Chap. 2, where farmers and workers from the community were invited to teach in school. A carpenter introduced his tools one by one along with their names, explaining their functions. He took his big compass and meticulously drew

a circle on the blackboard, followed by a triangle and a rectangle. Each figure was evidence of his sense of geometry. Like an experienced teacher, he encouraged children to use his tools to draw the figures themselves. He went on explaining how to cut and join pieces of wood in various shapes and sizes, mentioning the features of each joint. At the end of the session a rapid oral test was conducted. Surprisingly, every child could explain, identify and draw various geometric figures. Almost 90 % of the children responded correctly, whereas in the normal mathematics class merely 2–3 % children were able to translate the teacher's instruction into action. Children learned to enjoy mathematics and saw mathematics as something to talk about, to communicate, to discuss among themselves and to work together on. Making mathematics *a part of children's life experience* is the best mathematics education possible. This is an important goal, based on the premise that mathematics can be enjoyed lifelong, which formally addresses problem-solving as a skill. Hence, the school is the best place to create such a taste for mathematics. On the other hand, a fear of mathematics can deprive children of an important faculty of life.

As noted earlier, for majority of the students, the secondary or the higher secondary stage is a terminal stage. With mathematics, the students can use math skills to figure cost of goods and services, potential monthly profits and returns on investment. They can manage bank accounts, figure sales tax and compute income tax etc. Other business tasks that need math skills include: comparing base agreements on office space, comparing costs on equipment and supplies, and deciding about advertising and publicity.

3.1.3 Higher Secondary Stage and Vocational Education

Higher secondary education serves as a bridge between school and higher education. This stage of school education prepares students, in the age group of 16 and 18 years, for entry into the world of work. Secondary and higher secondary education are important terminal stages in the general education because it is at this point that alternatives are exercised by the youth either to enter employment or opt for higher education.

After 10 years of general education, the higher secondary stage assumes greater significance as students, for the first time, move towards diversification. By this stage, students begin to develop their own thinking and independence of mind. Their interests and aptitudes begin to crystallise and stabilise, which have the potential to shape their careers. In order to equip youths to cope with changes in life, it is essential that cultural and ethical values are appropriately stressed and carefully instilled in them. A sense of belonging to the society and the country at large ought to be nurtured to avoid feelings of rootlessness and alienation from the society. The higher secondary stage is the stage of maximum challenge. At this stage students must be fully equipped with basic knowledge, skills, attitude and entrepreneurship so that they can lead a fruitful life. Table 3.5 discusses the proposed epistemological frame for integrating entrepreneurship education at the secondary stage of school education in terms of derived objectives and intended outcomes.

Table 3.5 Integrating entrepreneurship education at the higher secondary secondary stage in schools

Objective 1	Students to acquire their professional and entrepreneurial competencies
Objective 2	Students to use their professional competencies in an entrepreneurial and business-oriented way
Objective 3	Development of entrepreneurial attitude and spirit for entrepreneurship development
Intended outcomes and students' entrepreneurial competencies	i. Integrate general/professional skills with the concept of entrepreneurship development, economic issues and realities
	ii. Students learn to start up business

3.1.3.1 Specific Initiatives

Entrepreneurship as a Subject: At the higher secondary stage, entrepreneurship is taught as an independent subject, parallel to the business studies course, with the following precise objectives:

i. To foster the entrepreneurial spirit among students and learn about entrepreneurship as a career and the role of entrepreneurship in the society.
ii. To evaluate and develop the interest and abilities of students for entrepreneurship.
iii. To sustain interest towards self-employment through vocational education.

Entrepreneurship Education Camps: As a part of the entrepreneurship club activities and to broaden its scope, educational camps on entrepreneurship development may be organised for real world experiences.

i. *Opportunity Guidance Fairs*: Such fairs promote entrepreneurship as a career choice among students. These fairs extend awareness about various business opportunities in manufacturing, trading and service sectors under one roof. Students also benefit from interactions with experts and counsellors.
ii *Orientation Visits for Students*: The school can organise orientation visits for students to vocational training centres, social entrepreneurship firms, non-governmental organisations imparting skill development training to youths, women, and other disadvantaged groups to expose them to self-employment and open career opportunities for them (Box 3.1).

> **Box 3.1**
> Entrepreneurship Orientation Camps for Youth and Children, Entrepreneurship Development Institute, India
> The Entrepreneurship Development Institute (EDI), located at Ahmedabad in India, has been successfully organising 'youth camps' in the age group of 16 to 22 years and Camp on Entrepreneurial Stimulation for Children in the age group of 12–16 years during summer vacations, to

facilitate the development of the entrepreneurial personality and general awareness about entrepreneurship among the general population. The salient features of these camps, which started in 1994, focuses on activities like motivation and creativity exercises, puzzles/riddles, value education through specifically culled out anecdotes and stories, presentations, industrial visits and interaction with successful entrepreneurs and achievers. These camps have been successful in developing confidence and instilling positive thinking among the youth and children. 'Summer Camp on Entrepreneurial Adventures for the Youth' has motivated a number of youths from the country. The specific objectives of the camp are to: (i) foster entrepreneurial traits including creativity, concern for excellence, leadership, problem-solving, etc.; (ii) establish a forum of the participants for networking and to fruitfully utilise such interactions in future entrepreneurial ventures; and (v) provide them with an opportunity to interact extensively in formal and informal settings, with well known entrepreneurs and real life achievers. Consistent with the objectives, the camp focuses on: (i) entrepreneurial motivation development exercises; (ii) evaluation and development of entrepreneurial traits and competencies; (iii) visits to institutions of repute to analyse the process of creation; (iv) exposure to potential opportunities existing in industry and other occupation; (v) self-assessment through specifically designed psychometric tests and instruments; (vi) career and psychological counselling; and (vii) formal and informal interaction with successful entrepreneurs and achievers.

Source www.ediindia.com

3.2 Managing the System: Strategies

'How can I know my effectiveness as a teacher?' is a question quite frequently asked by those who show some concern for the teaching–learning process in schools. The answer to this lies in integrating school and out-of-school experiences, which is one of the important facets of both the educative process and content of education. For example, the following concerns in this regard may prove worthwhile:

1. What do we aim to achieve when children come to us at school?
2. What should be the organisational strategies to make the best possible use of our limited resources in order to obtain maximum of educational development at minimum cost?
3. How effectively can the school–community relationship be set up?
4. What could be the possible evaluation programme for our schools to base our educational practices on objective data?

These are, of course, difficult questions but not impossible to answer. Only then, can we avoid one-sided thinking in managing the educational system for entrepreneurship education. Children at a particular age are not at all capable of thinking at a fixed level. It is possible to change their norms of thinking because these are not at all static. By making a detailed inventory of community resources, it is possible to choose suitable learning experiences and appropriate materials from as many diverse fields as possible.

3.2.1 Home-School-Community Partnership

Links with the home and community are important at all levels of schooling. A strong body of research shows that when parents and the community support the work of a school and are involved in its activities, students make greater progress. However, effectiveness requires comprehensive and permanent programmes of partnerships by settling links between home and communities. The way schools care about children is reflected in the way schools care about children's families. If educators view children as *students*, they are likely to see families as separate from school. That is, the family does its job and leaves education to the school. If educators view students as *young people,* they are likely to see the family and the community as partners with the school in children's education and development.

There are many reasons for developing school, family and community partnerships. These partnerships improve school programmes and school climate and connect families and the community with their work. However, the main reason to create such partnerships is to help students succeed in school and later in life. When parents, teachers and students view one another as partners, a caring community forms around students and support learning. Thus, schools have to go into the wider community to forge new links to enable them to act as classroom helpers. The role of the school should be to support entrepreneurship and not push the child into it. It must reflect in the culture of school itself and be embedded in the school system.

3.2.1.1 Utilising Community Resources

Community resources can be used as an entry point for curricular experiences in the school. The experiential base can further be developed by evolving social and community engagements. The community resources can be used in a classroom in three ways: first, by bringing the resources into the classroom; second, by bringing the resourceful people (various specialists); and third, by making special arrangements in the form of educational trips. The results have been startling wherever efforts in the right direction have been made. The pedagogical experiences of the rural schools in Maharashtra in India (see Chap. 2) for example, depict the

effective use of community resources for developing work-related competencies among school children.

i. Rich, direct experiences facilitate verification as opposed to vicarious experiences.
ii. Variety of approaches to learning drastically reduces the mystifying, dull and boring diet of 'canned' verbal learning.
iii. First-hand experiences give them sensory impressions of feeling, smelling, seeing and hearing.
iv. Abstractions are made concrete and real.
v. Information purely local in nature or for any other reason, not accessible in school may be obtained from the community.
vi. Powers of problem-solving and keen observation are enhanced in the out-of-school environment.
vii. The use of scientific discoveries in improving community living is fully explained.
viii. Finally, the contacts which are made in the course of using community resources result in developing good school and community relations.

3.2.1.2 School Complexes as Resource Centres

A country like India should not throw away these valuable educational resources which offer immense, exciting possibilities and opportunities. Through regular and repeated visits to the community and reproducing part of the community in the school, both school and students gain much. Students encounter first-hand natural settings and socialise themselves with the scientific skills of the community. Teachers, on the other hand, try to bridge the gap between the school and community. Blending school life with the outside world puts pupils in learning situations and provides them with the knowledge to see the real world of work which they have to enter sooner or later. With community support, the schools can become educational centres where teachers meet, interact, provide material and manpower resources for school improvement programmes and quality education.

3.2.2 Professional Support for Teacher Education

Teachers are the key agents for the success of curriculum reform in school education. This is even true of entrepreneurship education because it is a relatively new concept that demands teachers to go beyond their traditional subject specialisation. Although creative ideas for reforming education come from many sources, only teachers can provide the insights that emerge from intensive, direct experience in the classroom itself. Moreover, reforms in education cannot be imposed on teachers top–down or outside–in. If teachers are not convinced of the merit of proposed

changes, they are unlikely to implement them enthusiastically. If they do not understand fully what is called for or have not been sufficiently well prepared to introduce new content and ways of teaching, reform measures will founder. In either case, the more teachers share in shaping reform measures and the more they implement the agreed upon changes, the greater is the probability they will be able to make the improvements stick. The development of desired attitudes, skills and values requires innovative planning and execution of teaching strategies, which in turn demand special skills on the part of teachers. Due the specificity of the topic and the fact that this theme is going to be introduced in school curricula in an integrated fashion, it is essential to empower teachers with desired skills and competencies.

3.2.2.1 Teacher Preparation Programmes

Teacher education refers to the policies and procedures designed to equip teachers with knowledge, skills and behaviours to perform their tasks effectively in the classroom, school and with the community. It covers three stages: pre-service education, induction programme and continuous professional development also called in-service education. Becoming an effective teacher is a continuous process that stretches from pre-service experience to the end of the professional career. Pre-service and in-service education is a seamless component of the same process, and continuity between the two is kept.

Bringing entrepreneurship into classroom requires a relook at the pre-service teacher preparation curriculum, so that new concerns and issues may be incorporated in it. This will take some pressure off the in-service education programme. In the pre-service teacher preparation programmes, emphasis needs to be laid on the content knowledge and proper integration of methods of teaching along with evaluation procedures. Besides this, continuing education and needs of in-service teachers requires attention because all their initial education and training may not remain relevant and effective with changes in content and pedagogy in the global scenario. The in-service training should not remain a one-time affair but should run on a sustained and regular basis. A cascade model and a collaborative mechanism for this purpose may be evolved among various national, state and district level agencies.

The next important support is the active involvement of teacher preparation institutions. Curriculum implementation at the national and state level cannot be left to a handful of institutions. All institutions having capacities to perform these roles will have to be involved in this task. During the past decade, a good number of teacher preparation institutions have been established and strengthened in India. These institutions will have to be involved in all the areas of curriculum development, its transaction and all forms of teacher education in new concerns, issues and strategies. Although teachers are central to reform, they cannot be held solely responsible for achieving it. They need allies. Teachers alone cannot change instructional materials, implement more sensible testing policies and create administrative support systems. They need the support of school administrators and education policy makers. It is time for teachers to take more responsibility for reforms

in education but this in no way lessens the responsibility of others to do their part. Educational functionaries and administrators at the state, district and block levels are also vital for effective implementation of the curriculum. They have to be oriented to their roles and of those working with them. Headmasters and principals of schools have to play the roles of managers and functionaries in their respective roles. Nobody wishes to see them at the bottom of the pile as there is no substitute for educational imagination, no substitute for educational adventures and no substitute for hypothesis-setting and testing of philosophy.

There is a proverb that 'money makes the mare go'. The economy cannot go far without a trained and educated workforce. Children everywhere must learn to build their own small hills of learning. They should climb them often so their sights get raised high. Throughout students' educational progress, they should be offered an unbroken chain of educational opportunities which, when seen as a whole, would strengthen their entrepreneurial competencies. In fact, schools should consider the following possibilities for their students.

i.   Participation in local economic activities, production and services, within the school or community-based training sites for entrepreneurship development.
ii. A generic preparation for basic human needs such as food, water, health, technology and decision-making. As well as participation in community-based activities such as literacy drive, health campaigns, agro-horticulture, care for the old, etc.
iii. The culture in schools should create space for new ideas, initiatives and collaborations, and assessment of and willingness to take risks as well as acceptance of the fact that not all experiments will be successful. The education should be more open to the outside world. The partnership between educational institutions and the business community represents an essential link in developing entrepreneurial culture in schools.

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Chapter 4
Curriculum Design for Entrepreneurship Education: An Experimental Project

Abstract School curriculum is responsive to the society, reflecting the needs and aspirations of its learners. A curriculum does not exist in isolation. It is an outcome of varying degree of mutual interaction between variables such as different learning styles of students, teacher and teacher preparation, evaluation practices, instructional and illustrative material and research. In seeking answers to the question 'whether elementary stage children are able to comprehend the concept of entrepreneurship', the chapter discusses the components and suggested sequence of the experimental curriculum for entrepreneurship education. The question thus leads to carry out both basic and applied research for understanding the alternate routes which shows direction for child's moral and personal development. An important element of experimental curriculum relates to entrepreneurial narratives, in the form of short stories, specifically written for children on identified theme in measurable terms. The chapter also describes experiential learning cycle for its effective transaction at the elementary stage of school education.

The word 'curriculum' originates from the Latin word currere, which means 'to run'. It is, therefore, defined as a course to be run for reaching a certain goal. Here, it is important to make a distinction between 'curriculum' and 'teaching'. Briefly, curriculum is *what* you teach and teaching is *how* you teach. Even though the definition holds true, to leave the definition at this simplicity is not helpful particularly for effective curriculum planning pertaining to entrepreneurship education.

Curriculum is an evolving thing, that is, it is always in the making, being more in the nature of a process than a finished product. While it tells us what to teach, it does much more than to draw the boundaries of academic subjects and helps to

identify age-appropriate methods and approaches of teaching–learning and stages at which various ideas can be introduced. The Secondary Education Commission (1953) states that curriculum includes the totality of experiences, which the child receives through the manifold activities that go on in the school, classroom, library, laboratory, workshops, the playgrounds and informal interactions among themselves and with their teachers. In this sense, the whole life of the school becomes the curriculum, which can touch the life of students at all points and helps in the evolution of balanced personality (Secondary Education Commission 1953, p. 65). These experiences are characterized by observation, experimentation, independent work, drawing inferences and critical thinking, thereby, expanding scope for the cultivation of scientific skills, interests, attitudes and appreciation. This chapter sets forth curriculum design in entrepreneurship education and shows how various components as well as actual teaching fits into the curriculum transaction and evaluation (see Chap. 5).

4.1 Purpose of Curricula

Education in India, suffers from the gap between its content and the living experiences of students. Education, ideally, must prepare students to face challenges in life. For this purpose, it needs to be intimately linked with life skills. It should develop in students' abilities for adaptive and positive behaviour that will enable them to deal effectively with the demands and challenges of everyday life. There are different understandings of life skills but no definition is universally accepted. The World Health Organization (WHO) defines life skills as the ability for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life (WHO Information Series on School Health Document 9, p. 3). As in other parts of the world, life skills education forms a significant and regular part of the school curriculum in India. However, critical gaps remain. These need to be seen in close relationship to the dramatic changes and challenges facing us today, about growing unemployment, poverty, inequality, violence, and environmental destruction. The pressing situations caused by these challenges demand that we mobilize the skills, capacities and problem-solving potential of our working age population.

Life skills provide support and act as an anchor for productive and meaningful living. It is, therefore, important for curriculum developers to explore ways to acquaint students with the broad spectrum of life skills education. It cannot be learned in an abstract and theoretical way. Emphasis should be on thinking outside the structured environment while dealing with real-world applications. One of the challenges in creating this new paradigm is to bring focus to the ability to think 'like an entrepreneur' as a core skill. When seen in the context of behaviours, skills and attitude, entrepreneurship is regarded as a way of thinking and acting i.e., a state of mind.

4.2 Assumptions in Curriculum Development

The design of the experimental curriculum for entrepreneurship education is based on the following assumptions.

i.   The work environment is changing drastically in this millennium.
ii. Twenty-first century students must think in different and more creative ways.
iii. Students must develop the ability to create jobs instead of simply taking up jobs.
iv. They need to be creative and self-sufficient.
v.   They must be prepared to compete effectively in the new global economy.
vi. They must be prepared to deal with confusion and to manage risks that may prevail in the future.

The course is built around a number of core objectives:

i.   To instil new and interesting ways of thinking.
ii. To discover new ideas and business ventures.
iii. To develop 'regret minimisation'.
iv. To discuss new and different ideas openly, without restraint.
v.   To share business ideas with classmates, formally and informally.
vi. To learn to manage risk and uncertainty.
vii. To develop skills that will lead to individual freedom, independence, self-reliance and self-sufficiency.

4.3 Selection and Sequence of Learning Experiences

The curriculum design presents a series of educational activities for inculcating entrepreneurial abilities in children. It is divided into sections identified and extrapolated as demonstrable themes of entrepreneurship. The derived themes enumerate several points of discussion and are with teaching notes that encourage school children to examine their own behaviour (self-perception) and attitude towards entrepreneurship.

4.4 Themes for Curricula

A set of themes are identified to encourage learners think creatively and entrepreneurially in a cross disciplinary learning environment within the school set up. Each theme, in its process, offers opportunities to develop skills, attitudes and behaviours associated with the enterprising person. These are:

1. *My Future*: 'What shall I be when I grow up?' is a question every child asks; for every child has a dream. The main thrust of this experimental programme is to

allow the child to gain practical base for learning specific knowledge. As a new entrant to the school curriculum, this theme helps to create awareness about the acquisition of entrepreneurial skills and to shape the future life styles of learners.

2. *Taking Initiative*: This theme makes children understand that *initiative* is an essential dimension of being enterprising. It encourages them to look for possibilities to solve problems they care about; come up with an idea, bring resources and talent together as a team and finally put them together to plan a new venture.

3. *How Entrepreneurs Think*: This theme helps the child to identify an entrepreneurial idea which fits his/her neighbourhood, interests, hobbies, abilities and goals.

4. *What Entrepreneurs Look for—An Opportunity*: This theme is an introduction to how entrepreneurs take advantage of opportunities. It enables the learner to look for and recognize different kinds of opportunities in their school and community.

5. *Using Senses for Finding Opportunities*: This theme helps children practise to make good use of their senses. This enables them to notice and remember possible opportunities for an entrepreneurial idea.

6. *What Signals a Good Opportunity*: This theme introduces the learner to the concept of risk for evaluating opportunities.

7. *Reaching Out to Your Target Customers*: The learner understands various types of sales tools and identifies the suitable sales tools for his/her own entrepreneurial idea.

8. *Developing a Business Plan*: This theme enables the learners to develop a quasi-business plan for a venture which they would like to create.

There are many benefits in encouraging and supporting children in entrepreneurial pursuits. They learn money management skills, better understand economic realities, develop strong work ethics, manage time effort, people and resources and become responsible for their actions. Most importantly, however, they gain a sense of accomplishment that they did something useful all by themselves (Tables 4.1 and 4.2).

4.5 Writing Narratives for Children

One of the components of curriculum design is to write stories of entrepreneurship for children. The literature review shows there is a growing need to establish a link between entrepreneurship and the ability to tell stories (Brochhaus 1987; Steyaert and Bouwen 1999; Smith 2002; Nicolson and Anderson 2005; Davis 2007). Storytelling is particularly considered a good way to teach children realistic thinking and for transfer of values. This make stories one of the best ways to influence their thinking.

4.5.1 The Entrepreneur in Narratives

The available literature in the area provided insights for constructing stories of entrepreneurship. Brochhaus (1987) identified the existence of entrepreneurial folklore and Covey (1989) studied the literature on *success* over two centuries and

Table 4.1 Teaching entrepreneurship—the suggested sequence

Themes	Concept development	Suggested activities
My future	Self-owned business and working for others Types of occupations Reaching out for the term 'entrepreneur'	*Preliminary activities* Identifying different types of occupations/professions Articulating a life span
Taking initiative	Business *versus* social venture Who is an entrepreneur? Understanding entrepreneurial activity	*Using narrative/story* Identifying an entrepreneurial character from movie/novel/any experience What entrepreneurs do? (Discussion to freely express thoughts and feelings by children)
How entrepreneurs think	Generating (business) ideas Locating opportunities Art of recognising opportunities Divergent thinking/thinking sideways	*Using narrative/story* Identifying the strengths of hobbies/interests Training senses to spot opportunities:—class market survey
Finding opportunities: making good use of senses	Understanding economic activity Developing a business idea Noticing an opportunity	*Using an Entrepreneurial Instance* Selecting and describing a business idea Designing flyer/poster Conversing in business language and economic reasoning
What signals a good opportunity	Assessment of an opportunity in terms of: real opportunity, competition, comparison, risks, etc	Filling up a response sheet to evaluate/assess the individual business idea and opportunity
Reaching your target customers	How to sell your own product or service?	*The five major factors of selling* Who is your target audience? What motivates your customer? How much your promotion cost? Your message to your customers Promoting your sales
Developing a business plan	The road map: Who am I; Where am I going? How will I get there?	Writing a business plan

emphasized the importance of *Character Ethics*. Covey's work is important for entrepreneurial narratives because character types are formed early in childhood and remain stable throughout life (Piaget 1952). Thus, to promote entrepreneurial narrative, one must seek to project inherent values and character types. Steyaert

Table 4.2 Performance Indicators in terms of desired competency (ies) and percentage

S.no.	Percentage (%)	Desired competency	Attribute development	Performance indicators
1.	10	Becoming enterprising	What entrepreneurs do!	PI : Role of entrepreneur in society PII: Taking initiative: one of the dimensions of entrepreneurship PIII : Recall and list types of occupations/professions PIV: Wage employment versus self-employment PV : Complete suggested activities
2.	35	Looking for available opportunities	How entrepreneurs think?	PI: Linking opportunity to hobby/skills PII: Locate the market gap PIII: Develop business idea into a business concept PIV : Design poster/flyer for the business idea PV: Converse in business language. PVI: Complete suggested activities
3.	50	Developing business skills	How entrepreneurs decide?	PI: Assessing identified opportunity PII: Take selling decisions PIII: Demonstrate the ability to run a small business PIV: Complete the suggested activity
4.	5	Writing the business plan	Prepare a road map for potential business	PI: Examine the business goal PII: Locate help technical/managerial/financial PIII: Measures to promote sales PIV: Identify sales tools PV: Design a business plan

Table 4.3 The positive
and negative roles of classic
entrepreneur as identified in
literature

Positive	Negative
Good	Bad
Loving and caring	Siren
Helper	Henchman (hinders)
Magician (good magic)	Sorcerer (black magic)
Donor of magic object	Hinderer of donor
Seekers	Avoiders
Dispatcher of heroes	Captor of heroes
Villains who are really good	False heroes

and Bouwen (1999) pointed to the fact that narratives are an emerging theme in entrepreneurship research. Nicolson and Anderson (2005) identified various repetitive themes in narratives from newspaper articles, media material and fiction and found that entrepreneurial construct is composed of two strong complementary sub-narratives: (1) success (2) morality.

From a study of leading Indian entrepreneurs (IIFL 2010; Piramal 1996) and the readings from fictions such as Captains and Kings; Martin Dressler: The Tale of American Dreamer,[1] the image that statistically emerges is that of a male, middle-class person from a managerial and professional background who is likely to begin on an entrepreneurial career path in the age range of 30–40 years. The entrepreneur is often reflected in positive or negative roles: generally considered a *heroic parvenu* figure (positive role), an entrepreneur as a villain (negative role) is also an accepted counterexample (Table 4.3).

Empirical research shows that children are influenced by gender, age and culture specific role models. It is unlikely the aging professional male entrepreneur will inspire many children to copy. To inspire them, it may perhaps be necessary to present them with gender and age specific role models (Smith 2002). Also, it is important for an entrepreneurial narrative to end with a hero either accepted or rejected, that is, the story needs to be socially programmed. For developing stories of entrepreneurship, it is advisable for a fictional entrepreneur not to pass sublimely into old age or oblivion, as is seen in real life sketches of entrepreneurs. It is so because the tragic figures are unlikely to inspire children to emulate them. The other identified themes are projected in Table 4.4.

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[1] The two books, namely, *Martin Dressler: A Tale of an American Dreamer* written by Millhauser (1996) and *Captains and the Kings*, by Caldwell (1972), were subjected to content analysis for deriving the themes for entrepreneurial narratives. The novel *Martin Dressler* narrates a story of a young and optimistic entrepreneur who rises from the position of a bell boy in a small hotel to the owner of Hotel Dressler. It is a story of the rise and fall of an entrepreneur who by the virtue of his diligence and hard work becomes rich, builds his empire but is castigated due to his arrogance, overestimation of his capability and loss of contact with reality. His concept of building an 'extravagant hotel' saw a downfall of his empire. The work won the Pulitzer prize for fiction in 1997. Another story, *Captains and the Kings*, is a story of greed, conspiracy and desire for money. Joseph Xavier, who struggles against all odds to overcome the death of his parents, poverty, marginality and discrimination, is portrayed as an outsider, a nefarious entrepreneur with villainous traits. Serendipity is evident in the storyline and entrepreneur is projected in a negative role.

Table 4.4 Common themes in entrepreneurial narratives as an outcome of literature review

Formulaic narrative themes	Thematic descriptions
The gifted child	A narrative in which a child is blessed with a remarkable qualities to excite wonder and admiration. Sub-themes include overcoming marginality, poverty and race discrimination (a classic but optional entrepreneurial paradigm)
The classical narrative of the poor boy who oodmakes good	This theme is central to the construction of entrepreneurial narratives being rooted in reality. Sub-themes include serendipity, empire building and a change of stature (dominant paradigm)
The villainous entrepreneur	This is the traditional narrative of the likeable dishonest and unprincipled person. The entrepreneur is cast in a negative role. Sub-hemes include empire building and a developing arrogance (an entrepreneurial paradigm)
The entrepreneur as an outsider	This category includes such demographical elements as class, marginality and ethnicity, etc. It is the broad societal category for differentiating all those entrepreneurs who do not have a business family background (a classic entrepreneur paradigm)

Hence, a fictionally constructed entrepreneur is a more skewed because he is portrayed in a historical context. The common theme in literature is to begin an entrepreneurial narrative with examples of poverty that is heroically overcome by a person. This pervasive and recurring theme has set in the available texts. Significantly, these fictional narratives read like a fairy tale and are expected to begin a fairy tale with a line similar to '*Once upon a time….*' The same pattern is also followed in an entrepreneurial narrative.

4.6 Design of Learning Activities

Learning activities in the curriculum combine the pedagogical approach of collaborative learning and experiential learning. Collaborative learning includes group tasks, active learning, and cooperative learning with classroom assignments. Collaborative learning provides added pedagogical tools for developing higher level thinking and critical thinking skills as well as the ability to work with individuals of differing potentials and learning styles. Under experiential learning, knowledge is created through transformation of experiences. Experiential learning introduces complexities of the real world often not reproduced in classroom.

It may take place in many forms such as group tasks, open-ended projects (guided discovery), presentations and role-plays depending upon the stage of education and maturity level of learners.

The off-shoot of experiential learning is problem-based learning (PBL). PBL is a learner-centric approach, which enables learners to construct their own knowledge through peer interaction and collaborative learning. Under PBL, complex, loosely structured problems act as the focal points and stimuli for the course. Such problems encourage idea generation and idea development urging learners to extrapolate prior knowledge gained from experiences. Under the experiential learning cycle, learning is a four step process:

First   Learners have direct experience, that is, they actually do something.
Second Reflections on experience occur when learners ask themselves what the experience like was? Have I had an experience like this before?
Third   Learners develop generalisations, which help them explain and understand their experiences and their reflections.
Fourth   Learners use generalisations as guide to further actions. They try out what they have learnt in the previous three cycles.

At this point, the cycle is complete. Learners are then taken to another direct experience, at a more complex level. The cycle of experiential learning is used as a suggested delivery for curriculum transaction.

The preliminary activities to introduce entrepreneurship begin by engaging learners in a direct experience. The teachers are advised to conduct the preliminary activity as a group task in an open and participatory manner. While carrying out these activities, the interest, curiosity and imagination of children should be so raised that they actively share, are ready to enjoy and understand the text.

4.6.1 Activity 1: Working for Own Enterprise Versus Working for Others

1. Discuss with children the jobs or occupations their family members, relatives and neighbours are engage in.
2. Encourage them to recall and list other various types of occupations or jobs or professions.
   [ARE THEY ABLE TO DISTINGUISH BETWEEN *BUSINESS* AS AN OCCUPATION AND *JOB* AS AN OCCUPATION]
3. Provide them with observation sheets to write down the responses. What jobs can they think of?
4. Write on the blackboard to sort the common jobs and occupations identified by them.
   [AS THE ACTIVITY PROGRESSES, SEE HOW MANY, IF ANY, SAY 'ENTREPRENEURS']

4.6.2 Activity 2: Articulating a Life Plan

1. Ask students what they want to accomplish in life. Let them organize their thoughts into a simple timeline as they listen to the following questions:
     i.   Imagine your life as you would like it to be 10 years from now, when you are grown up and out of school/college.
     ii. Now it is morning and you have just woken up. What do you see?
     iii. Now you get dressed. What do you see? What would you choose to wear to work today?
     iv. Now you are eating breakfast. What do you see?
     v.   You are now ready to leave for work. Where do you go? How do you get there?
     vi. Who do you see in your workplace? What are they doing?
     vii. What are your feelings about the work you are doing?
     viii. It is your lunch time. What are you doing? How long do you take for lunch?
     ix. How do you feel about the day?
     x.   Now take few minutes to review the day. What were your most important thoughts and ideas during the day?

2. As the second part of the activity, provide them with a question and answer format to put down the various parts of their life plan into a theme.

     i.   What are my most important feelings about this day?

          _____

     ii. What type of work did I choose for myself?

          _____

          _____

     iii. Did I work for someone else, or, was I in-charge of the business?

          _____

     iv. Did I use interests, hobbies, skills that I am developing now?

          _____

          _____

     v.   Was I satisfied with the job I chose? Why or Why not?

          _____

As the activity progresses, ask the following questions to extract the desired information:

1. How many children preferred to own a business?
   [SEE HOW MANY, IF ANY, SAY 'ENTREPRENEURS']
2. What does the amount of money they earn mean to them?
3. How many used skills and hobbies they have already started to develop?

4. Are they happy with the plans for their future life?
5. What have they learnt about themselves in this activity?

Reflection: Articulating a life plan helps children to focus on how owning a business would fit into their lives.

4.6.3 Activity 3: Who is an Entrepreneur?

1. At this stage teachers are advised to write the word 'entrepreneur' on the blackboard and ask the groups to speak about it the way they understand its meaning or how they see 'entrepreneur' as person or a character. Allow them to use a dictionary to find out its meaning and discuss among group members.
2. In the second part of the activity, children may be encouraged to identify a character from a novel movie, or any experience they have had, which they think is entrepreneurial, and why. The idea is to divert attention towards an entrepreneurial setting in a social setting and not solely confined to a business setting.
3. Finally, through the process of engaging in various activities, learners develop larger frameworks and are able to apply them in different walks of life.

4.6.4 Activity 4: Think for a Moment that You have the Ability to Make the World a Better Place for People, Animals, Birds, the Community and the Environment

Think of different ways of extending the help in the following cases:

    1.   Elderly people in the community

         _____

    2.   Children in shelter homes

         _____

    3.   Saving the environment

         _____

    4.   Victims of disaster for example tsunami, earthquake, flood, etc.

         _____

Under the experiential learning cycle, learners are involved in activities of all the four modes of cycle. They are engaged in both taking in experience and transforming it. Through collaborative learning and group tasks, learners share their

experiences and perspectives for conceptual understanding. They deal with issues in all the four modes of the cycle (i.e., continuity) with much reiteration and reinforcement of concepts. Each of the four activities are sequenced, building on earlier ones beginning with the simplest (i.e., listing the occupations) and ending with the most complex (i.e., discovering themselves as agents of change). Integration is achieved by bringing together all the learning episodes together for real-life situations.

4.7 Conclusion

The chapter has argued that the curriculum design for entrepreneurship education should be developmental in nature, that is, it should be planned and carried out not only to help school children master the content of entrepreneurship, but to help them in 'becoming enterprising' by acquiring skills and attitudes of entrepreneurship. All the activities developed, with entrepreneurship as a central theme, are interdisciplinary in nature. The intent is to lead students to think beyond the right answer and learn to see opportunities in an ever-changing environment. Lastly, the purpose is to identify the possible dimensions for nurturing an entrepreneurial spirit among school children.

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Chapter 5
Entrepreneurship Narratives for Children

Abstract Storytelling has been recognised as an effective medium to construct knowledge, communicate ideas, organise and make sense out of the experiences of life. Stories contribute to the child's emotional and academic growth. They are accessible to all ages, abilities and learning styles. As a teaching–learning tool, it encourages the learners to communicate their thoughts and feelings in an articulated and lucid manner. However, there is an obvious dearth of children's stories on entrepreneurship specifically written for them. In this context, the chapter presents a framework within which 'telling stories of entrepreneurship' can be developed. It emphasises narratives as an emerging theme in entrepreneurship research. The stories of entrepreneurship, presented in the chapter, are supported by illustrations, pictorials and suggestive activities in order to relate them with the learning processes.

Keywords Narrative approach • Storytelling • Pedagogy • Entrepreneurship research • Stories of entrepreneurship

Narratives are generally used in a wider sense that presents a chain of events which represent experiences. Narratives are often seen in different forms and shapes such as scripts, themes, content analysis/coding, storytelling etc. In narrative studies there is a developing appreciation of other genres such as diaries, photographs, music, films, theatre, media, cartoons and other forms of expressions. In entrepreneurship studies, the narrative approach has so far been quite limited, but seems to be gathering more and more interest (Hytti 2003). In addition to this, poetry and songs are also an emerging area of empirical research, though an under-researched narrative genre in entrepreneurship studies (Smith 2010).

Storytelling assumes a privileged learning tool for promoting values among children. Telling stories to children and encouraging them to tell stories themselves prove wonderful results where we find our experiences confirmed, challenged and broadened. Storytelling is a powerful tool for language learning and enhances their vocabulary by acquiring new words.

However, there is also an obvious dearth of entrepreneurial narratives specifically written for children. Entrepreneurship narratives found in literature portrays entrepreneur as an adult. Children do not often experience them in their formative years. To inspire them at an early age, it is thus important to present them with gender- and age-specific role models in their childhood. This encourages children to think about the schematic role of entrepreneurs in the society.

Considering the importance of storytelling for the conceptual understanding of entrepreneurial pursuits, this chapter introduces narratives as a part of storytelling process. The stories are written with the objective to:

1. Include the best elements from picture books of moral values, adventure stories, fairy tales, drawn from children literature.
2. Create a story of educational significance to socialize children in accepting entrepreneur as a role model of emulation at an early age.
3. Recreate a classic picture book by way of which entrepreneurial values can be conveniently communicated.

When children look at these pictures in the book and listen to the stories, they learn to associate between story and self with stronger skills of imagination and visuals.

Thus, the genre of the picture book allows a convenient incorporation of entrepreneurial values and the text per se can be developed in the way a story is told.

Stories provide basic recall-understanding-application-based activities at different levels. Though it is difficult to gauge the long-term impact of entrepreneurial instances on children, problem-based learning (PBL) lends a protracted environment to track the students' progress in learning. PBL environment extrapolates experiential learning and leads children to apply them to a variety of contexts.

5.1   Narrative Approach to Curriculum Delivery

The entrepreneurship curriculum, discussed in Chap. 4, sets up thematic linkages and offers opportunities for developing attitudes and behaviours associated with the enterprising person. It was transacted in an educational camp situation at Bhartiya Vidya Bhawan's Vidya Ashram, Jaipur in Rajasthan in 2007 and 2008. The duration of camps was 15 days each. Each session was of 90 min every day in which one theme of the module was considered as one section for curriculum delivery. Using purposive sampling technique for sample selection, 40 children in the age group of 11–14 years were selected from classes VI, VII and VIII based upon the school records of their performance in scholastic and co-scholastic performances. Care was taken to include children belonging to both service and business class families to examine the impact of family background on the understanding of children for entrepreneurship. Half of the girls were included in the sample to study gender differences on entrepreneurial ability and gender stereotype beliefs on girls' career aspirations. The educational camps were organised to fulfil the following objectives.

1. Recognise the entrepreneurial potential within one self.
2. Appreciate the role of entrepreneurship in society and in own's personal life.
3. Identify many ways in which entrepreneurship manifests itself, including business contexts, social contexts etc.
4. Develop an appreciation for opportunity and how to recognise and evaluate it.
5. Enhance reasoning and argumentation skills through active participation in class discussion.
6. Appreciate challenges for accomplishing creative solutions while working with a team.

Teachers of English, science and mathematics and social studies were involved from the beginning of writing stories to the finalisation and transaction of the curriculum. The problem-based learning model was applied to study the impact of entrepreneurial instances and to assess the understanding level of children.

The activities interwoven in the narratives provided a continuum for the basic recall-understanding-application at different levels. The progression of students' participation was assessed on the basis of identified performance indicators (see Chap. 6) for judging the effectiveness of entrepreneurial narratives. It was ensured that all children under the study had access to the text and illustrations to relate themselves with the content. They were encouraged to look at illustrations/pictorials, when appropriate, to relate them with the text. It was felt important to hold such an exercise in a friendly atmosphere where dialogue acceptance motivates children to disclose information. The problem-based learning model extended applicability and relevance to the curriculum delivery, encouraging children to extrapolate learning from experiences and apply them to the given situation.

The curriculum themes are now elaborated below to assess the impact of narratives on children.

Introducing the 'Entrepreneur' in the Classroom

We are human beings. We have same body parts. Still we are different. Some are tall; some are short; some are young; some are old; some are thin and some are fat.

Underneath our skin: Guess what? Isn't it difficult to distinguish one person from another?
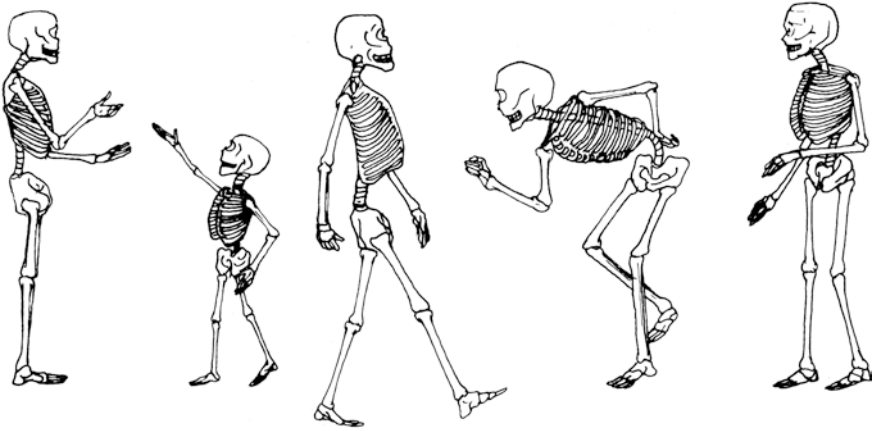
Similarly, entrepreneurship comes in different forms and sizes. 'Entrepreneurs' also belongs to different types. But one quality which is common among all is the spirit of taking initiative. It does not matter whether you volunteer yourself for a good cause for the welfare of your community or start a moneymaking business. The venture could be as simple as collecting old clothes to give to the needy or as complex as setting up your own business to earn money. It is an adventure!

Need Some Inspiration: Being an Entrepreneur can be Fun!!

Ordinary kids just like you are making a difference in different walks of life by becoming entrepreneurs. They are starting small projects that provide money, supplies an extra pair of hands for a good cause. These kids show that nothing is impossible when you put your mind into it.

Taking Initiative

To help you understand more about what entrepreneurs do, consider the following story about a group of young children.

Story: The Melody Makers

December 26, 2004 will ever remain an unforgettable day in history, especially for India.

[We interrupt this story (yes, even though it has just begun) to bring your attention to the way entrepreneurs think. They keep their eyes and ears open. They think about possibilities. Whenever they hear about a problem or somebody wanting something, they think about what can be done.]

Let us return you to our story.

It was a day when millions across South Asia were witnessing to the terrifying waves, which led to the death of over 85,000 people in the Asian Tsunami disaster. India also felt its impact, losing more than 10,000 people. All ordinary citizens

across the country rose to the occasion as one and saw what a great difference it made! A group of six young children, students of eighth class, saw the misery of the earthquake victims on their television set and were disturbed.

This got them thinking and talking what they can do. They started discussing how to extend a helping hand to the victims. There was general agreement, but only one problem—What were they going to do? It just so happened that this group was sitting in a park and noticed that a person at a distance had brought along a music player and was playing music. Like good entrepreneurs, they had their eyes and ears open for opportunities. When they looked around, they noticed that both children and adults were playing, walking and exercising, but in tune to the music. Feet were tapping, shoulders were moving, and bodies were bouncing.

It was obvious to the group that people have an inclination for music. Within their group they had a considerable talent, Palak Munchal. Her melodious voice easily won the heart of the audience. Adarsh Mahajan was one of the best dancers in the school. They decided to raise money by starting a series of charity shows. They talked to their music teacher in the school who could play the guitar well. They also tried to convince their parents and friends to join hands and work together. Each brought their own set of skills to the venture. The group said, 'We do not know where Nagapattinam is, but we could feel the victims' anguish'. They advertised the noble cause in the local papers. Huge responses surprised them.

They organised a series of charity shows in various parts of the city. The group succeeded in raising INR 15,000 for the tsunami victims.

The money raised through these shows was donated to a charitable trust, 'Make a Difference Fund', set-up by CARE India. The group enjoyed plenty of affection and admiration for all that they did.

'We just want to help them. They too have a right to live', the little entrepreneurs said ever so sweetly.

Do you know any such entrepreneur? Are you an entrepreneur?

Activity 1

Discover what you can do to solve problems, you care about? Discover some easy ways to make the world a better place for people, community and the environment.

Think again! What can I do to help?

1. Elderly people in the community

2. Children in foster care or shelter houses

3. Helping the environment

4. Victims of disaster e.g. tsunamis, earthquakes, famines, etc.

Next, think about different ways of extending help

How Entrepreneurs Think

This group was doing just what entrepreneurs do by exploring possibilities (opportunity), coming up with an idea, bringing their talent together as a team and finally putting them together for a new venture.

Many a times entrepreneurs get their start at different or uneasy times—times when they are not happy and bored, times when unpleasantness happens. An unpleasant event had disturbed the group of children and they wished to help the victims financially.

Also, people sometimes turn their hobbies and interests into a business idea.

Activity 2

What are your hobbies? What skills have you developed or begun to develop? (E.g. sports, music, mechanics, art, etc.).

Hobbies I have
a.
b.
Skills I am developing
a.
b.
Business ideas arising out of my hobbies and skills
a.
b.

Story: Parties To Go!!

Malini was upset for not being able to find time to arrange for her daughter's fifth birthday. She has been busy in a major project for her company. She told her sister, Shalini, that she simply did not have any time to host a birthday party for her little girl. This problem created an opportunity, which Shalini identified. She offered to do this service for no charge. This helped her try out her idea, estimate the cost and time in planning for and carrying out such parties. She also surveyed other working parents in her neighbourhood and asked if they might also be interested to avail such a service. This experience gave her the information she needed to assess her idea. As a result of her analysis, she came to the conclusion that her idea really was a business opportunity! She set up Parties to Go!!, a service that would take advantage of parents' desire to arrange for their children's parties and meet the challenges of parents' busy schedules.

Parties to Go!! is designed to provide a service offering convenience, quality and fun. This young entrepreneur spotted an opportunity and came up with an idea for a business. She took some initiative, and hopefully will meet with success.

What about you? What are your thoughts regarding this business opportunity?

Activity 3

1. How do you think Shalini identified an opportunity?

2. Think about her idea and then identify what you feel are its strengths and weaknesses.
   Strength of the business idea:

   Weakness of the business idea:

Suggest other ideas to take advantage of this opportunity
Write your idea below:

Activity 4

When you are coming to school and going back home, list all the people you see and write what they are doing.

1. What are they doing?
a.
b.
c.
d.
Now, recall those people who are busy in providing goods or services in exchange for money [do not just think of store owners; also think of service providers like car washers and delivery people as well]
a.
b.
c.
d.
This time, as homework, walk around your own neighbourhood and list:
List 1: People engaged in activities for money:
a.
b.
c.
List 2: List all the businesses in your neighbourhood:
a.
b.
List 3: Think about products and services you cannot buy in your neighbourhood. List them here:
a.
b.
[All the items in your list three are market gaps, which could provide possible opportunities for good business ideas.]

Sometimes entrepreneurs also find opportunities in annoyance. When people are annoyed, an opportunity exists.

Activity 5

Pause right now and look around. Is there anything that annoys you? It might be an opportunity. Just think of mosquitoes or dirty sidewalks, cars getting hot on warm days, house numbers that are hard to read, weeds, dirty windows, etc. Or have you heard around you people or your neighbours or friends who still say, 'I wish I had someone to carry my stuff, someone to teach my kids when I am at work, someone to help me learn how to use a computer, someone to pay my pending electricity or telephone bills, someone to tune up my car and two-wheeler'?

| Can you think of and list an example (annoyance or unfulfilled wants of people around you) as opportunities. |
| --- |
| An annoyance or unfulfilled wants of people around you: |
| |
| |
| Why do you think they are opportunities? |
| |
| |
| Select any one and describe your idea. |
| |
| |

The following story can help you to complete these questions.

Story: Opportunity Knocks

Soon after the final examinations, the schools closed for summer vacations. One fine morning, a young boy Azad, went on a walk around his colony. After taking a careful look, he saw there were several residential blocks. They all had sidewalks in front of them. Most of the sidewalks and front steps were dirty. He did not see people sweeping the sidewalks. He developed an idea to own a summer project of cleaning up the area in front of the residential blocks. Soon other people also joined him in this community service endeavour. Azad saw an opportunity and he acted. He took an advantage of the opportunity to start his own little venture. Many young people walked down the street. Probably many of them were looking for work or ways to make some money. But this young boy looked at things differently. He identified an opportunity. You just have to be looking. *You can see a lot by observing!* Entrepreneurs with the same information make use of what they see and hear. You have to keep your eyes and ears open. When opportunities knock or when windows of opportunity open, you have to be able to hear and see them.

Activity 6: Problem Solving and Creative Thinking—Discussion

There are variety of seaweeds and plants that grow in the ocean and in lakes. The texture of these plants is beautiful. Suppose you develop a package whereby the consumer can grow various types of seaweed in their own Aquariums in their own homes. The concept behind your product is the same as planting seeds in your garden, but in this case it would be in your Aquarium. The water plants that you have in your package are exotic. The package is expensive. It contains many items including seeds, the plant food, the soil and substance that you put on the bottom of the Aquarium to put seeds and the water tester to control healthy environment for the plants. You plan to sell the package for rupees ten thousand. Develop a successful sale plan for your product.
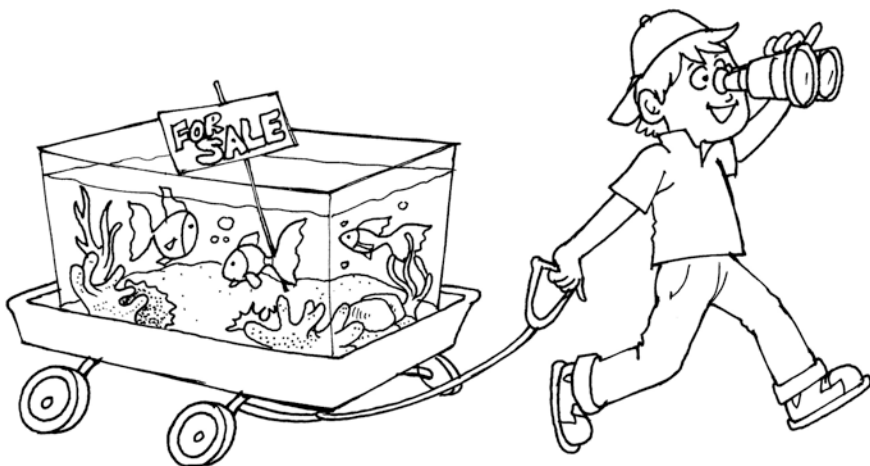
1. Identify your target audience for this product (such as age, sex, income, geographical location, interests etc.)

2. Name your product

3. Sales tools that you would use to target customers to buy your product.
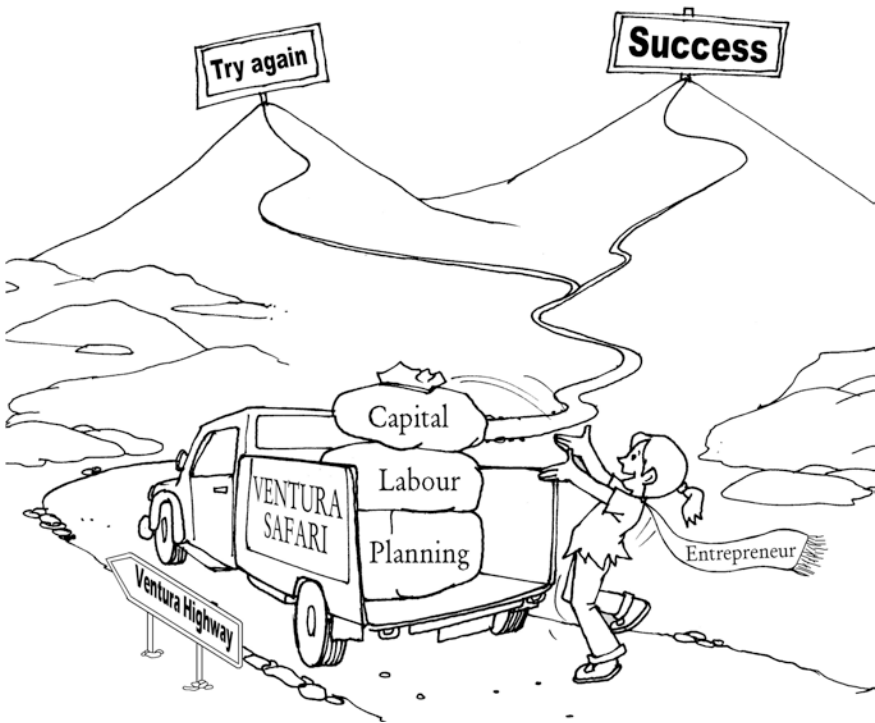
a.

b.

c.

4. How you would use each tool?

5. Develop some sample sales pieces, which you would use, if you decide to use an advertisement, a jingle or a trademark.

Design a poster or a pamphlet for your product.

5.2 The Impact of Entrepreneurship Narratives

It is stressing the obvious that no educational idea is accepted on the basis of a couple of observations and experiments. It has to fight for its survival in the face of several onslaughts from different quarters. Similarly, the following questions guided the experimental study:

i.   Using the narrative approach, are elementary stage students able to understand entrepreneurship?
ii. Can teaching of entrepreneurship begin at the elementary stage of school education?

Learners had no prior understanding of entrepreneurship. They had never heard the term 'entrepreneur' in their formal study. They responded to 'Who is an entrepreneur?' in general terms such as, a rich man; wears a lot of jewellery, smokes cigars, etc. Gender did not influence the results differently.

5.2.1 Taking Initiative

'Taking Initiative', essential for *being enterprising* was transacted in the class. The story 'Melody Makers' was narrated empathically, laying stress on every emotion. The purpose was to arouse interest to an extent that motivates children to think like entrepreneurs and express their thoughts and feelings freely. The story stated that even young children like them can engage in entrepreneurial pursuits. The venture could be as simple as collecting old clothes to give to the needy or as complex as setting up one's own business to earn money. It gave them a broader vision of the society around them. Entrepreneurship isn't just about a business; it is an attitude to make world and environment a better place to live and help other people. This translates into a stronger character.

The impact of story was visible. Children were enthusiastic to hear the story. They were listening and trying to understand the expressions of the teacher. They recalled characters from Hindi films. For example, *Iqbal*: a story of a deaf and dumb boy from a remote Indian village, who pursues his dream of playing for the Indian national cricket team (directed by Nagesh Kukunoor 2005); *Black*: a story of a teacher educating a deaf, dumb and blind young woman through sign language, building confidence in her to get her graduation degree in the Arts (directed by Sanjay Leela Bhansali 2005); *Makdee*: a children's film showing a story of a young girl's fight against superstition (directed by Vishal Bharadwaj 2002). The attention of children was diverted towards entrepreneurial activity in a social setting. As a part of their school projects, children related to collecting money for HelpAge India and working for slum children.

5.2.2 How Entrepreneurs Think

It is difficult for any person to convert an idea into an appealing opportunity at the first instance. A person should have an ability to produce a large number of ideas so that at least one of the ideas has the potential to be an opportunity, and then adopt a series of steps to finalize it into a successful project.

5.2.3 Hobbies as Opportunity

The story 'Parties to Go!!' emphasised the need to spot an opportunity arising out of hobbies and interests. The summarised version of the story was told to see whether children understand the given situation. The story 'Parties to Go!!' is a mix of two dimensions of entrepreneurship: (i) taking initiative; (ii) spotting an opportunity. The story 'Parties to Go!!' showed students that hobbies and skills have potential for a possible business venture. Gradually, children became observant towards their surroundings. At first, they had never seen around themselves so keenly and carefully.

The group identified their hobbies and skills for a possible business activity or a small project for a social cause. At the beginning, the group came up with routine hobbies like singing, reading and listening to music. When probed further, they related their art and craft classes to their interests and hobbies. They came up with business ideas like soft toy making, baking and cooking (delivering on birthdays and other kinds of parties), selling friendship bands, candle making and decorative items during festive season, and composing their own songs. Some children were interested in stitching and embroidery and talked of fashion design and further extended it to interior design.

5.2.4 Thinking Sideways: The Art of Recognising Opportunities

Apart from hobbies and skills, strangely, 'Every problem is an opportunity': If you believe in it, it can change your life. 'Thinking sideways' is looking for alternatives for new and better solutions (see Fig. 5.1). Perhaps the solution is not hard to see and everybody knows the solution. Instead of looking at the problem, it is helpful to look at the things that go with it. There is always another way of looking at the problem.

5.2.5 Market Gap as Opportunity

Opportunities exist when people want products or services which are not easily available to them and are willing to pay for it. Entrepreneurs focus on opportunities.

Entrepreneurship is about spotting and Exploiting Opportunities

Case I

Long ago, a shoe manufacturer sent two of his associates to the interiors to see if they could come up with new product ideas for an undeveloped aborigine market. The first one responded: there is no business here; natives do not wear shoes of any type.

The second one was more enthusiastic of the prospects: that's a great opportunity- natives have not discovered shoes yet.

Case II

A famous Hotel received several complaints a day from hotel guests about its slow elevators. The hotel management hired a consultant who knew one-way to solve the problem was to look not at the slow elevator, but to concentrate on the hotel guests who were complaining. He came up with a *solution*: Place full-length mirrors next to the elevators on every floor, People do not mind waiting if they have something to do. They would be so interested in looking in the mirrors to adjust their hair or clothing or- simply admire themselves- that they would forget the slow elevators.

Reflection: A good idea is always there to be spotted, but for many people it is always someone else who sees it first.

Fig. 5.1   Entrepreneurship is about spotting and exploiting opportunities

This means that they start with what customers and the marketplace want and do not lose sight of those wants. Such wants develop over time, changes occur with changes in people's interests and in technology. An entrepreneur knows how important it is to make good use of their senses. It is a good way to notice and remember possible opportunities. Following self-directed learning, students conducted a class market survey (see Fig. 5.2) to decide possible school-based business ideas for a school shop.

These involved five major decisions for 'selling' products and services to reach the target customers: 1. Who are your potential customers? 2. What motivates your customer? 3. Comparing the promotion costs with the cost of your product; 4. Reaching your customer; 5. Promoting your sales. The series of action points in activity 6, assessed the understanding of the group to grow and transform their respective ideas into selling. As the activity progressed, teachers posed thought-provoking questions to help students: What business idea is it? Elaborate the identified opportunity. How would you connect your idea with what you have learnt? The points arising in discussion were written on the blackboard so everyone could read it. As the teachers continued with different types of sales tools (one by one), the group actively discussed different kinds of sales promotion.

The assumption underlying the study was that the sample group had no prior understanding of entrepreneurship. The impact of the stories on children was visible. The study helped explore the pedagogical role of stories in entrepreneurship in education. Children could identify a character from a movie, a novel that they

Class Market Survey
Instructions: Using this form, survey one class in your school to find out possible school-based business ideas. You may wish to do the survey by show of hands or redesign the questionnaire for each student to fill up separately. After combining responses for one or more classes, discuss your suggestions for products and services for your school 'shop'.
How many in the class are: • Boys_____ • Girls _____ How many in the class are in age group of: • 10-12 -------------- • 12-13-------------- • 13-14 ----------- • 14-15---------------
Hobbies and skills you prefer in your spare time? Reading ☐   Play music ☐   Sports ☐   Watch TV ☐ Dance ☐   Go for walks ☐   Fix things ☐   Crafts ☐ Painting & ☐ Drawing ☐   Write stories ☐   Any other ☐
Are you able to find the products or services relating to your hobby/skill in the 'school shop'   Yes/No My hobby……………………   My Skill………………….. I am happy to find these items in the school shop: 1. 2. 3. 4. 5. No, the things I need are not available in the school shop. I have to find extra time and reach for a shop at a distance to buy them. I will be happy if these items can be bought at the school shop: 1. 2. 3.
The items which they need and are not sold at the 'school shop' define a *market gap* which can be tapped as an opportunity. But are all opportunities are good opportunities.

1. Make the list of products and services desired by students for the school shop?
        It is important to assess the opportunity.
2. Do you think these products and services can be sold at the school shop:
        If yes – Why ……………………………………………………………………
        If no – Why not ……………………………………………………………

Fig. 5.2 Class market survey

had read, or cite an experience, which they thought was entrepreneurial. As the course delivery progressed, they could link their hobbies and skills with possible business activities. Boys and girls did not differ in their understanding. Girls, however, took part actively and wished to move away from the stereotyped image of girls in the society. They wanted to be independent and able to decide on their own. The positive response of the children was overwhelming. The inspirational nature of the narratives motivated learners to develop life skills to face challenges of life rather than pushing them into it. Conversely, it is difficult to show the long-term effects of these entrepreneurial instances on children. It is therefore suggested the similar studies be taken up in a wider setting to provide new insights in general education with entrepreneurship as a central theme.

Responding to the research question, 'Can teaching entrepreneurship brought down to elementary stage of education?', it is suggested that entrepreneurial values can be developed as life skills rather than seen only as an economic activity. Finally, the result of the entrepreneurial narratives showed that entrepreneurship is a way of thinking and emphasized that learning about an idea is not the same as living with that idea.

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Chapter 6
Curriculum Evaluation

Abstract Evaluation and measurement are two common approaches to judge the effectiveness of any educational intervention. While measurement is concerned with achieving the desired objectives, evaluation focuses on outcome measures to track progress of learning and assess the effectiveness of an intervention. Education for entrepreneurship is recognised as a wide range of skills and attributes. Evaluation of attained proficiencies becomes rather difficult to ascribe to measure its positive impact on learners. Reporting the results of the educational programme 'Are elementary stage children able to comprehend the concept of entrepreneurship', this chapter presents appropriate methodologies and evaluation matrix to undertake evaluation of activities, which can be subsumed within entrepreneurship education.

Keywords Levels of thinking • Measurement and evaluation • Evaluation matrix • Curriculum evaluation

The preceding chapters discussed one vantage point for viewing entrepreneurship as a behaviour, skill and attitude, i.e. as a state of mind. In this chapter, we take the view that developing entrepreneurship as a life skill is a lengthy process wherein changing young people's behaviour, skills and attitudes is not expected to happen overnight. Entrepreneurship education is a long-term investment and the results may take time. It is comparable to a tree planted with the understanding that it will take many years to come to fruition. So it is not a good idea to keep digging it up to look at the roots (Iredale 2002, p. 5). The purpose is not to reach at the result, but more importantly, to reflect on the processes underpinning the various components of the curriculum leading towards concept development and active generation of knowledge (see Chap. 3). The objective is not to gather evidence on both sides of the arguments to answer 'Can entrepreneurship be taught?'; 'How do the various ideas compete against one another?', 'How to balance difference of opinions until better theory appears?'. It

hardly matters whether such progressions of thought are Popperian.[1] The basic aim of any investigation is to catch the fish rather than specialise in the art of angling. The whole texture of solutions changes when one looks for its significance. The challenges and opportunities for entrepreneurship vary dramatically at different stages of the educational journey. There is no 'one size fits all' solution for entrepreneurship education. It is, therefore, not possible to take any one approach for evaluating students' understanding on entrepreneurship. Entrepreneurship as a core skill is task-oriented where problem solving is at the centre. Thinking can easily be provoked through experiential learning and problem-based learning (PBL) by encouraging students to extrapolate learning from other experiences and apply these to solve problems, similar to entrepreneurs when they exploit new business opportunities.

6.1 Typology of Thinking

It is necessary for all of us to know how children learn at various age levels. It is in the nature of a child to know and to be logical. According to Mclntyre and Vaidya (1998, p. 172) levels of thinking relevant to schooling can be classified as follows:

1. *Explanatory thinking*: Here, teaching of textbooks takes place from page to page and from line to line on the page.
2. *Thematic thinking*: This is based on similarity recognition and influences a wider range of cognitive processes such as idea generation, creativity, opinion, recognition, knowledge representation, categories and reasoning. The relations define external or complementary ideas, events, people and other entities that co-occur or interact together. For example, creativity and innovation thematically define the term entrepreneurship. Similarly, traits like risk taking, initiative, setting up venture, persistence, perseverance, spotting opportunity, etc., define the personality of an entrepreneur.
3. *Productive thinking*: This is a process of solving a problem in such a way that it expands the thinking and problem solving capacity of learners. In other words, it means going ahead assuming incomplete information. For example, 'what signals a good opportunity for an entrepreneur'? Not all ventures always succeed. Why do they fail? Was a venture offering quality goods or services? If so, how did it stack up? Was there any competition? There may be a number of reasons. A person may have identified a poor opportunity or may have thought that people wanted something which they did not. Unsuitable location or inadequate planning before setting up a venture can also lead to failure.

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[1] Karl Popper (2002) in his book *The Logic of Scientific Discovery* categorically specifies that ascertaining whether one theory is better than the other requires deductive testing rather than inductive procedure, i.e., verification and falsification are logically possible. In other words, a better theory has greater empirical content and predictive power. When applied to entrepreneurship, the 'born' versus 'made' argument is frequently raised, which on close examination appears to be a blend of two.

1.	Information	Involves simple recall
2.	Concept	Involves definition
3.	Understanding	Involves relationship
4.	Application	Involves use of information and understanding in novel situation
5.	Skill and Ability	Involves anything with ease and precision
6.	Appreciation	Involves aesthetic appreciation
7.	Attitude	A broad tendency determining behaviour
8.	Interest	A specific tendency determining behaviour
9.	Adjustment	Involves establishing harmonious relationships both with the environment and within self

Fig. 6.1 Nine-category classification of educational objectives (Bloom and Krathwohl 1956, p. 7)

4. *Integrative thinking*: It is generalised thinking at different levels. In this context, we need to make a mention of the work done by the Taxonomy Group published in 1956. This work needs to be particularly referred to, as it is this group which for the first time systematically and comprehensively classified educational objectives into three categories, namely cognitive, affective and psychomotor. A nine-category classification, under cognitive and affective domain, of educational objectives is discussed by the group (Fig. 6.1).

The cognitive domain has been well investigated and mapped. Under cognitive domain are described two major classes: (i) knowledge and intellect and (ii) abilities and skills, which have been further classified into the following sub-categories (ibid, pp. 201–207).

Knowledge involves recall of specifics and universals, methods and processes, patterns, structures or settings. It is broken down into the following 11 categories:

  i. Knowledge of specifics (recall of information)
 ii. Knowledge of terminology (verbal and non-verbal)
iii. Knowledge of specifics facts (events, persons and places)

iv. Knowledge of ways and means of dealing with specifics (organising, studying, judging and criticising)
v. Knowledge of conventions (treating and presenting ideas and phenomena)
vi. Knowledge of trends and sequences (processes, directions and movements of phenomena with respect to time)
vii. Knowledge of classifications and categories (classes, sets, divisions and arrangements for a given subject of field)
viii. Knowledge of criteria (facts, principles, opinions and conduct are tested or judged)
ix. Knowledge of methodology (knowledge of the method rather than ability to use the method)
x. Knowledge of the Universal and Abstractions in a field
xi. Knowledge of principles and generalisations (synthesis)
xii. Knowledge of theories and structures (inter-relating elements so as to constitute a whole pattern or structure).

The abilities and skill objectives emphasise the mental processes of organising material to achieve a particular purpose. It is broken down into the following categories:

i. Comprehension
ii. Translation
iii. Interpretation
iv. Extrapolation
v. Applications
vi. Analysis
vii. Analysis of elements
viii. Analysis of relationships
ix. Analysis of organisational principles
x. Synthesis
xi. Production of a unique communication
xii. Production of a plan or proposed set of operations
xiii. Derivation of a set of abstract relations
xiv. Evaluation (qualitative as well as quantitative).

6.2 Evaluation Plan

The term 'evaluation' implies a value judgement about the extent to which materials and methods satisfy a given criteria. In education, especially school education, the term 'evaluation' is used for operations associated with curricula, programmes, intervention, methods of teaching and organisational factors. Curriculum evaluation aims to examine the impact of a completed curriculum on student (learning) achievement for their performance skills and proficiencies. Curriculum evaluation establishes:

1. Specific strengths and weaknesses of a curriculum and its implementation;
2. Inputs for improved teaching and learning;
3. Performance indicators for monitoring.

In this sense, it is typically concerned with the impact of curriculum on individual learners, i.e. her/his level of engagement and performance, and, from the society's viewpoint, i.e. appropriateness of values and attitudes imbibed through its use and the level of satisfaction. Evaluation comprises a series of independent steps, which seeks to provide objective evidence whether the programme has met the needed objectives or not. Evaluation should be looked upon as an integral part of the instructional process, and not something that is done when the instruction is completed. In the latter case, one loses the sight of learning experiences which become educational experiences and in turn creative experiences. Evaluation has twin objectives: performance of students and educational growth of students. Evaluation pays rich dividends in educational processes if our teaching and testing becomes experiential.

6.3   Some Basic Considerations

The importance of entrepreneurship or enterprising behaviour is widely acknowledged. Entrepreneurship comprises a range of skills and attributes which include capacity to think creatively, work in a team, manage risks and handle uncertainties. This recognises the 'changing mindset' fundamental to entrepreneurship education. Also, it is important to recognise that entrepreneurship skills and attitudes are applied in work organisations of all types, that is, voluntary work or organising clubs, social and community service. There are multiple activities which can be subsumed within the category of education for entrepreneurship such as the acquisition of key skills, personal development and social skills and financial literacy.

Entrepreneurship education is an important determinant of the supply of entrepreneurship by forming (potential) entrepreneurs, as well as contributing to a positive entrepreneurial culture. Entrepreneurship education should not only focus on narrow defined tools (e.g. how to start up a business, financial and human management), but also on broader attitudes (like creativity and risk taking), especially at the lower and secondary levels (OECD 2009, p. 14). Thus, it is difficult to ascribe quantifiable measures to make a shift in attitude towards entrepreneurship. The differential focus on evaluation for entrepreneurship education is needed to gauge 'softer results' (change in attitude) instead of 'hard outcome' evidence (potential for setting up a business venture). No single approach to evaluate entrepreneurship programme can be applied, however the quantitative and qualitative approach may be used in conjunction to assess the attitudinal and perception shifts. It shall also be admitted that different sets of students will have different set of goals and expectations from the programme. Apart from general references relevant to the evaluation of entrepreneurial competencies, we will here discuss the following questions in particular:

1. How is evaluation different from measurement?
2. How are instruction and evaluation related?
3. What are the important functions of evaluation?

4. What are the distinguishing features of a good evaluation programme?
5. What are the objectives and how to state them?

6.3.1 Evaluation and Measurement

Evaluation and measurement are often used interchangeably. At first, it might seem the two are simply two ways of saying the same thing. In fact both are different concepts. To evaluate means to discover whether it meets some criteria. The teacher, during entrepreneurship programme, might assess student's understanding about the qualities of an entrepreneur and expects at least ten characteristics associated with an entrepreneur. The teacher may decide through measurement that students can recall and state eight characteristics out of ten. Quantitatively, this is measurement. Measurement is the 'act of ascertaining the extent of quantity of something'. Exact measurement is essential for objective evaluation but, at the same time, it falls much short of the modern concept of evaluation as it further answers the question: Is the obtained measure relevant to our purpose or not? Measuring student's knowledge is one thing but evaluating it is another. Evaluation at macro level considers the context of learning. Evaluation is the estimate of growth and progress of students towards the values (predetermined objectives) in the curriculum. Measurement on the other hand measures learning, i.e. it is at the micro level. Does arriving at eight dimensions of entrepreneurship out of ten meet the criteria for 'attitudinal and perception shifts' towards entrepreneurship? In this context, measurement data on students has relevance only in reference to the objectives, whereas evaluation includes integration and interpretation of various incidences of behaviour into an inclusive portrait of an individual in an educational situation.

   While some criteria can be set by teachers to recognise entrepreneurial behaviours, there is however no common code for recognition that allows for behaviours to be coded fairly and weighted. The development progress needs to be monitored over a period of time. There are some means of evaluating outcomes from entrepreneurial processes such as progress in project work completion or designing a business plan. But this is still not a criterion as one can be entrepreneurial in producing a business plan or it could be the result of a formal or uninspiring process. In short, it can be said that evaluation is the estimate of growth and student's progress towards attaining educational objectives. It includes the portfolio which presents interpretation of various indices of behaviour in an educational setting.

6.3.2 How are Instruction and Evaluation Related?

Effectually, instruction and evaluation are integral to the teaching-learning process (see Fig. 6.1). Both instruction and evaluation do not differ in purpose and

methods. Differentiation occurs only when the objective is solely to find out the achievement of students. Instruction becomes effective with the understanding of prior knowledge of students on the educational programme. Like in the present study, the sample group had no prior understanding of the term 'entrepreneurship'. They had never met this term in their formal area of study. The preliminary activities (see Chap. 4) to identify occupations, as a starting point, and segregation of occupations into wage and self-employment towards sorting and listing the occupations beginning with letter 'E' and reaching to the word 'entrepreneur' streamlined the thought processes of children towards entrepreneurship. Later, age appropriate stories and instances of entrepreneurial behaviour extended relatedness with classroom-community engagements as a part of school projects.

Evaluation does not differ from instruction in purposes, in methods or in materials and can be differentiated from instruction only when the primary purpose is that of passing judgement on the achievement of a student at the close of a period of instruction. It is like a sponge that absorbs and helps learner to deliver later. In this manner, it provides evidence that instruction is going in the right direction, that is, evaluation is conducive to learning. In other words, if evaluation shows that certain concepts are difficult to develop, then the teacher can either choose a different set of learning experiences or postpone it to a later stage during the educational programme.

6.4 Functions of Evaluation

The following are the main functions of evaluation:

1. It leads to the improvement of instruction. Learning situations are selected and presented to students to achieve certain objectives. After the completion of a particular activity, if found effective, it is accepted and incorporated. Otherwise, attempts are made to find the causal factors and modify the activity. The activity may be even dropped in certain cases and other activities considered. This continuous and critical appraisal of learning activities ensures improvement of instruction. At the end of the course delivery, the practice to write a business plan was given to children to assess their understanding of entrepreneurial initiatives and endeavours. The business plan is a written document prepared by the entrepreneur that describes all relevant external and internal elements involved in starting a new venture. It is often an integration of plans such as marketing, finance, manufacturing and human resources and addresses both short-term and long-term decision making. It acts as a roadmap for the entrepreneur.

A blank Performa is given in Fig. 6.2. The accounting and cost part of the plan was consciously not included as these need specialised treatment, considering the age and maturity of the children under study. Those who had relatives in business immediately understood its significance. The activity inspired the group while projecting their ideas on paper.

Nature of Business

NAME OF BUSINESS:
BUSINESS PLAN PREPARED BY:

1.   MY IDEA IS (business/social and community engagement)
(Describe the purpose of your business in one or two sentences)

_____

_____

2. I CHOSE THIS IDEA BECAUSE

_____

_____

_____

3. UNIQUE QUALITIES OF MY PRODUCT/SERVICE OFFER

_____

_____

_____

4. WHO ARE MY POTENTIAL CUSTOMERS?

_____

_____

_____

4.   WHERE IS MY VENTURE LOCATED?

_____

_____

_____

HUMAN RESOURCE REQUIREMENT

Who will be the first person you will go for help where you need more
skill, experience or advice?

_____

_____

TYPE oF HELP NEEDED

Helpers

(NOTE: You may need to come back to this question several times as your
business idea grows, and you learn more about business and the kinds of
people who are there to help you.)
THE SKILLS NEEDED TO MAKE THIS IDEA WORK ARE

_____

_____

Fig. 6.2   Format of business plan

Selling Your Product

In planning your sales promotion or programme, you must make several major decisions. You have to make ALL of the decisions BEFORE you begin selling your product.

DECISION 1: WHO IS YOUR TARGET CUSTOMER?

- What age are they?
- Gender?
- What are their interests?
- Where do they live?
- What will attract them to your product or service?
- Price?
- Quality?

DECISION 2: WHAT ARE YOUR MAJOR AND MINOR SALES MASSAGES?

(NOTE: Remember people generally concentrate on one message at a time. No matter how many good things can be said about your product or service, most of the time you will be selling only the MOST important point).

- Is your target audience most concerned with? (Rank them from most to least important)

( ) Cost   ( ) Safety ( ) Quality ( ) Convenience ( ) Good Service
( ) Status ( ) Something Else?

DECISION 3 : What Sales Tools Will You Use?

( ) Phone Calls (Telemarketing) ( ) Personal Contact (Face to Face)
( ) Newspaper Ad ( ) Posters ( ) Flyers ( ) Radio Ad ( ) Brochures
( ) Something Else?

Reason(s) for selecting these tools: _____

_____

_____

I will use the following sales promotions to help sell MY product or service:
( ) FREE GIFTS ( ) DICOUNT COUPONS ( ) NEWSPAPER ADS
( ) SPECIAL SALES ( ) BUY ONE GET ONE FREE SPECIALS
( ) FREE SAMPLES ( ) OTHER (Please specify)

Reasons for using these sales promotion technique(s) _____

_____

On the following pages, you are asked to show how you would design some of the major sales tools. So, be creative. Remember, you want people to buy your product based on these tools.

SALES TOOLS

TELEPHONE SCRIPT: This is what I would say on the telephone when trying to sell my product or service:

Fig. 6.2   (continued)

NEWSPAPER ADVERTISEMENT: Write a newspaper advertisement for your business. Because this can be expensive, limit your advertisement to 50 words or less and use abbreviations whenever you can. Look at the advertisements in your paper to learn how to do it. Remember, make it interesting; make it stand out from the other ADVERTISEMENTS

RADIO ADVERTISEMENT: Write an advertisement for your product or service. Radio time is expensive. Limit yourself to 10 seconds. Time yourself while reading it to get it UNDER 10 seconds. Then tape yourself reading the advertisement Listen to it as if you were a potential customer. Did it get your attention? Did it make you want to buy the product? Did the advertisement give all the information you needed? Price? Phone number?

Finally, design a poster for your business. Think about the major points that you want to make. Give most of the space to the most important point. Try to include some reference to the more minor concerns also. Think about all the posters that you have seen. Most of them you threw away without reading them. Some you found interesting enough to read. Try to make YOURS one that gets read.

2.   This activity on 'writing a business plan' helps to formulate and clarify the objectives the entrepreneurship curriculum delivery. Evaluation is never in vacuum. It takes place in a certain setting. There is a triple relationship between objectives, learning experiences and evaluation. For a teacher of entrepreneurship, evaluation procedure is a means of formulating the objectives to be achieved through the content. It further translates these objectives into specific behaviour changes among the students.

3.   Evaluation ensures not only better learning but also emphasises development of various ability in students. It helps the teacher to classify students according to their capacities and abilities. It also help teachers to accommodate individual differences in a better way by providing redial teaching for slow learners and at the same time, can provide challenging situations to the brighter students too. The diagnostic and prognostic values of evaluation can go a long way in building an effective educational culture in schools.

Fig. 6.2   (continued)

6.4.1 Distinguishing Features of a Good Evaluation Programme

A growing and progressive evaluation programme shares most of the following characteristics:

1. It is based upon a clear statement of the aims and objectives of instructions for the subjects under study.
2. It evaluates both objectives (ends) and learning experiences (means).
3. It is continuous and comprehensive.
4. It involves students, teachers, administrators and even parents.
5. It is easy to record and interpret for the students, teachers and administrators.
6. It recognises individual differences and leads to the concept of differentiated curriculum.

6.4.1.1 What are Objectives and How to State Them

There are a few synonymous words used for this term (objective) such as aims, goals, values, outcomes, purposes, etc. These refer to a desired change in student behaviour which is not the end product but at the same time is definitely a product of value judgement. It may be further added that there is nothing objective about these objectives. They are subjectively determined, that is, they vary from teacher to teacher, place to place, time to time, one group of children to another and culture to culture. Let us now consider the objectives for knowledge, computational and problem solving for the purpose of illustration:

(a) *Knowledge Objective*
    i.   The student recalls scientific words, terms, facts, concepts and principles.
    ii. Recognises them as stated in (i).
    iii. Defines as well as describes them as far as possible in own words.
    iv. Provides examples as given in (i).
    v.   Distinguishes between closely related concepts, principles and processes.
    vi. Classifies data on the basis of given characteristics.
    vii. Compares and contrast terms, concepts, processes and principles.

(b) *Computational and Problem Solving*

    i.   Precision and exactness.
    ii. Analyses problems.
    iii. Self-reliance in handling given problems.
    iv. Draws generalisations.
    v.   Applies generalisations to unknown situations.

Table 6.1 Commonly identified traits of entrepreneurship in the literature

1. Continuous goal setting	2. Perseverance	3. Ethnic background	4. Dealing with failures
5. Self-determination	6. Willingness to consult others	7. Physical health	8. Mental and physical health
9. Drive and energy level	10. Moderate risk taker	11. Persistent and hard work	12. Initiative
13. Tolerance of uncertainty	14. Use of feedback	15. Competing against self-imposed standards	16. Seeking personal responsibility
17. Self-confidence	18. Versatility	19. Desire for independence	20. Positive attitude
21. Purpose and objective	22. Objectivity	23. Achievement oriented	24. Flexibility
25. Desire to create	26. Long-term investment	27. Self esteem	28. Commitment
29. Innovation	30. Long-term perspective	31. Technical and industrial knowledge	32. Human relations
33. Access to financial resources	34. Desire for money	35. Divergent thinking	36. Selling ability
37. Communication and network	38. Courage	39. Age	40. Family background

6.5 Evaluation Matrix for Entrepreneurship Education

A substantial amount of work is available to assess the attitudes of the adult entre-
preneurial performance; this is yet to be applied to the school education system.
The entrepreneurship literature, as it exists, is almost an adult observable fact,
often not faced in childhood. The review of the literature in this area identifies the
common characteristics (traits) of successful entrepreneurs (refer Table 6.1).

The overall goal of entrepreneurship education is to provide students with the
essential attitudes, knowledge and skills enabling them to act in an entrepreneurial
way. To evolve the evaluation matrix for entrepreneurship education, at the school
stage, the broad dimensions of entrepreneurship are categorised as attitudes,
knowledge and skills.

Attitude

Category 1: Self-awareness and self-confidence

This includes discovering and trusting one's own attitudes which allow children to convert their
    creative ideas into actions. The National Curriculum Framework (2005), a recent document
    for the effective implementation of school education in India, pursues them as general educa-
    tion goals

Category 2: Taking initiative, risk, critical thinking and problem solving ability as noted attrib-
    utes for 'enterprising self behaviour'

(continued)

Knowledge

Category 1:

i. Knowledge of career opportunities and world of work; not exclusive to self-employment or setting up a business unit; preparing for future career choices

ii. Inclusion of 'work' as a pedagogical medium

iii. Awareness of opportunities and constraints at the workplace

Category 2: Economic reasoning and financial literacy (concepts and processes) applied to entrepreneurship

Category 3: Knowledge of business and social organisations and processes, i.e. environment wherein entrepreneurship is often applied

Skills

Category 1: Communication, presentation and planning skills and teamwork are transversal skills necessary for entrepreneurship

Category 2: Exploring entrepreneurial opportunities, school (market) survey and implementing a business plan

Entrepreneurship in an educational setting is, thus, a continuous process. The acquisition of the desired competencies and behaviour has to be seen and evaluated in totality over the number of years of nurture at different stages of school education with respect to each of the categories discussed in Table 6.2.

These objectives for behavioural change pinpoint the teacher's thinking on significant behaviours, learning experiences to be planned and chosen and evaluation tools to measure the objectives. We ought to be clear about our aims and objectives of evaluation which, it may be mentioned, are tightly tied down to the aims and objectives of teaching in particular and education in general. Finally, it is curriculum evaluation under different conditions and with different activities (which can be refined later) that provides objective knowledge about students.

Table 6.2 Desired competencies, performance indicators for entrepreneurship education at different stages of school education

Stage
Elementary stage (beginning VI–VIII)
Elementary stage of education in India is a fundamental right to compulsory education of every child as per RTE Act 2009. This period of 8 years ensures each child the full development of personality, citizenship and lay foundation for employability. The gradual inclusion of vocationally oriented skills as a part of exposure to 'work' is an important aspect of an inclusive curriculum

Objective
i. Assuming the responsibility for their own learning (exploration and experiential and participatory) for future development
ii. Positive, responsible attitude towards learning and demonstrate it in their behaviour
iii. Basic understanding of 'work' (dignity of labour)
iv. Development of basic life skills

Percentage	Desired competency	Attribute development	Performance indicators	Specific initiatives: actions
15 %	Becoming enterprising	What entrepreneurs do!	P1 Role of entrepreneur in society	i. Integration of entrepreneurial activities into existing curriculum of languages (stories), environmental studies and mathematics
			P2 Taking initiative: dimension of entrepreneurship	ii. Designing charts, flyers and posters
			P3 List types of occupations and professions	iii. Role-plays
			P4 Wage employment versus self-employment	iv. Inviting artistic community to school
			P5 Complete suggested activities	V. Education and training of teachers and other stakeholders

(continued)

Table 6.2 (continued)

Stage

Secondary stage (IX–X)

At this stage children begin to discover their own interests and aptitudes for meaningful work-related knowledge and skills they wish to pursue later. The process has to be strengthened and concretised regarding entrepreneurship. This stage is also the terminal stage for a majority of students and they enter the world of work to earn their livelihood

Objective

i. Attitude building: understanding the role of entrepreneur in the society

ii. Business-related competencies: basic market principles, business language

iii. Personality-related competencies: taking initiative, creativity, assuming responsibility, experimenting and exploring

Percentage	Desired competency	Attribute development	Performance indicators		Specific initiatives: actions
35 %	Looking for available opportunities	How entrepreneurs think	P1	Linking opportunity to hobbies/skills	i. Setting up mini school enterprises, clubs, conducting class surveys for knowing choices and preferences for buying and selling
			P2	Locate market gap	ii. Theme events such as 'feature days', sports, exhibition of art work for inculcating entrepreneurial attitude and organising skills
			P3	Develop business idea into a business concept	iii. Attitude building and countering initial prejudices
			P4	Converse in business language	iv. Education and training of teachers and other stakeholders
			P5	Complete suggested activities	

(continued)

Table 6.2 (continued)

Stage

Higher secondary stage (XI–XII)

After 10 years of general education students for the first time move towards diversification. They start to develop their own thinking process as an independent mind. The interests and aptitudes begin to crystallise and stabilise which have a potential to shape the future occupational possibilities. Students at this stage must be fully equipped with the knowledge, skills, attitude and entrepreneurship proficiencies so that they lead a quality life

Percentage	Desired competency	Attribute development	Performance indicators		Specific initiatives: actions
50 %	Developing business skills	How entrepreneurs decide	P1	Assessing identified opportunity	i. Entrepreneurship as a core module
			P2	Take selling decisions	ii. Making projects and events happen and appreciable by junior classes
			P3	Demonstrate ability to run small business	iii. Interaction with business mentors and community
			P4	Complete suggested activities	iv. Education and training of teachers and other stakeholders

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Chapter 7
Entrepreneurship and School Education: The Beginning of a Relationship

Abstract This concluding chapter presents the strategies for purposive and meaningful work centredness as an integral part of the learning process by instiling knowledge, skills and literacy through entrepreneurship education. It examines the school–community linkages as an effective delivery mechanism for promoting the spirit of entrepreneurship among school children.

Keywords Entrepreneurship education • School–community linkages • Reforms in education • School education

A journey of 1,000 miles, said Confucius, begins when one puts one step forward. But this step has to be in the right direction if one is to reach the desired goal, else direction and destination will continue to mingle or cross paths. The baffling problem here is how to be sure at the beginning of the journey that we will arrive at a suitable destination. The answer is to hypothesis and test, look forward, go ahead, look backward more or less at the same time. The chances are the circular route becomes straight once the journey continues. A goat's way becomes a goat path which becomes a road and finally a thoroughfare with signposts over the years.

This book 'Developing Entrepreneurial Life Skills' shows a way, but is not a path. It augments the pedagogical potential of 'core work skills' as a medium for knowledge gain and life skill formation. While doing so let each one of us learn, 'how to think entrepreneurially' for which there is no prescribed curriculum. This broadly covers:

1. Continual and sequential experiences through elementary stage to higher secondary stage of school education.
2. Exposure to entrepreneurship narratives for social construction and reconstruction that begins during childhood.
3. Approach 'entrepreneurship' as an attitude, skills and behaviour rather than linking it with business start-ups and self employment.

4. Individual differences, capacities, needs and interests among school children.
5. Utilising local skills, community resources and social engagements for knowledge generation.
6. Continuous and comprehensive evaluation.

The principal goal of education is to develop people who are capable to think themselves. Indeed, we need to ponder how education can hold multitude of learning styles. It is in the nature of children to learn and go on learning on their own endlessly. It is also given to the human mind to identify order, compare, control, construct, prove and apply a rule; and finally go on forming concepts. Children have curious bent of mind. They try to understand meanings of words and make sense of their surroundings in which they live. Learners just do not take in and store up given information. Constructing knowledge is not a mechanics of sorting and processing just like computers do for us. Learning is an active mental work which links the prior experience to the changed mental framework of the learner. Thus, the learning environment, under entrepreneurship assumes the following pedagogical goals:

1. Provide experience with the knowledge construction process.
2. Provide appreciation for multiple perspectives.
3. Set in learning in practical and relevant contexts.
4. Encourage ownership in the learning.
5. Set in learning as a social experience.
6. Encourage use of multiple modes of representation.
7. Encourage self-awareness in the knowledge construction.
8. Create reflective atmosphere for the cognitive growth of all children.

7.1 Reforms in Education

It is difficult to define 'reforms' in education. More defined, more elusive it becomes. In simple words, it is a broad variety of movements, programmes and recommendations put forward for improving education. Reforms come in all shapes, sizes and orientations that sometimes push towards content and reforms that push towards process. How are people to decide on the best model of education for their children? Is there any one 'appropriate' answer? There is, of course, no best way but many best 'ways' as there are learners in the school. This implies there is no simple, single way to teach everyone.

Development of any country depends invariably on the quality of its education that reveals purpose and vision for the future to the general population. It is largely agreed, cultivating science and technology, economic development and prosperity depend on the skilled, trained and competent workforce leading a healthy and productive life. The role of entrepreneurship not only confines to create new ventures but also includes strengthening capacity, producing wealth, jobs and incomes, which have direct bearing on economic development.

7.1.1 Institutionalising Entrepreneurship Education

As a life skill, entrepreneurship education is recognised inclusive within which variety of teaching areas can be explored. It is interdisciplinary in nature. It becomes even more important to broaden its scope by ensuring its quality teaching and enable learners to explore their future trajectories with a critical mind and social concern. Focus on developing entrepreneurial skills and behaviours are important whether the concerned students intend to aim for the skill specific vocation or livelihood in their future lives. Bringing these imitations and expectations to the child's experience and understanding promotes quality of reasoning as they grow and move up the educational ladder. These visualised behavioural changes define results of entrepreneurship education. Once such picture is available, several educational activities become possible.

Therefore, the methodological tactics must need to reckon with how and where entrepreneurship education enters the general school education. The role of the school should lie in supporting entrepreneurship, reflecting within the culture of school itself, rather pushing the child into it. Being enterprising implies inculcating entrepreneurial temper in the society at large, in which the spirit of entrepreneurship becomes a reality.

The following trends are perceptible lessons of worthy consideration of learning for all of us:

1. Textbook as an only tool of teaching and learning will not do. Curriculum materials suiting varying needs, styles of learning and taste will grow with the passage of time. It will ease provision of experiential learning in the basic education of all children.
2. More emphasis on learning and improvement of thinking rather narrowly formed specific understanding and skills. Thus, in future, right concept formation, scientific temper to explore the unknown and unfamiliar areas, designing and delivering varied problem solving procedures will receive close attention of teachers and curriculum developers.
3. A swing towards self-study, self-understanding and personal development among students rather than authoritarian or dominated teacher-centric process.
4. Stress on strengthening capacities of children through activities, projects and independent investigations in educational practices.
5. Increasing cooperation and mutual exchange of communication as well as sharing of experiences among school teachers, educational administrators, educational planners, professional associations and researchers.

However schools, in India, are not geared for entrepreneurship *cum* social responsibility as a part of general school curriculum in terms of infrastructure, learning materials and readiness of teachers. Making entrepreneurship education an integral part of curricula implies changes at several levels. The role of teachers also demands new orientation to suit the changed times. Children, in one way or another, compose their own meaning while picking up knowledge. They link

and interlink, and apply them in new settings. In other words, knowledge is constructed and reconstructed progressively.

Bringing entrepreneurship into the school curriculum is a challenge which need large amount of pedagogical understanding in a wider perspective. The learning offered by entrepreneurship education form a suitable ground for children to reap significant psychological benefits contributing to their physical, intellectual and emotional growth. It begins with encouragement and ends with ethics, values and behavioural change imbedding the factors of energy, enthusiasm, endurance, emotional intelligence, eloquence, empowerment, effectiveness and execution. The result is that children gain one of the most important character trait, i.e. Resilience.

7.2 Strategies

Though several initiatives are in place to promote entrepreneurship in the country, the focus has however, remained fragmented and disjointed. Concerted efforts are needed to bring them together. While education at the school level provides a base for innovation and creates a value system, inculcating entrepreneurship skills, attitudes and behaviours can be soft pedalled during their formative years. The findings of the study reported in this book also confirm that the behaviours and attitudes associated with entrepreneurship can be developed and nurtured through pragmatic educational programmes.

In this new paradigm, the traditional role of a teacher has to be radically different, that is, the old tradition of teaching strictly based on textbook is to be replaced by an approach where students and teachers work in collaboration on the voyage of discovery; where students are gradually led to the final answer as far as unaided; where the teacher's duty does not end, of course, when a teacher has only stimulated students, that is, acted like a catalytic agent.

Second, the 'Aflataun Programme'[1] developed by an NGO in Mumbai, India, is another exemplar initiative geared towards entrepreneurial values and skills among small children belonging to rural and tribal areas.

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[1] 'Aflataun' child savings programme is an innovative initiatives of a registered NGO 'Meljol'. The NGO works with close to 17,000 schools covering nearly two lakh children in eight districts of Maharastra in India. It is the only programme of the children by the children and for the children, which encourages them to save their resources and start social and financial micro enterprises by empowering them to break the cycle of poverty. The organisation focuses on fostering healthy attitudes among children, building a spirit of confidence and entrepreneurship in order to create a civil society based on co-existence and achievement by providing them with opportunities to contribute positively to the environment. The programme:
1. Imbibes the habit of saving in rural and tribal children.
2. Inculcates ability to handle money.
3. Creates a sense of responsibility.
4. Improves mathematical ability.
5. Enables them to plan for future.

Third, nowadays radio and television programmes have a wider outreach in urban and rural areas. Designing age appropriate programmes, preferably in regional language, in the form of stories, cartoons, small plays, interactions with local entrepreneurs (especially women and from disadvantaged communities), talk shows act as mass awareness for the general population. Educational channels like *Gyan Darshan* and *Gyan Vani*,[2] which offers huge coverage, can help to promote entrepreneurship among youths.

Last, but not the least, 'de-emphasis on textbooks' is largely agreed among educationists (NCF-2005). The emphasis is more on activity based learning, constructivism and turning the passive learning environment into a lively one. Organising auxiliary activities locally such as, 'My story sessions' by local entrepreneurs, celebrating 'entrepreneurship week', holding competitions like business quiz, debates, road shows and field visits to local industrial units promotes the appreciation for economic activities in the society.

This book has made a beginning. It is expected that researchers, practitioners in the field and school teachers will join hands for advancing entrepreneurship education at different levels and making it a reality as there *is* no substitute to innovations in education, there is no substitute for hypothesis setting and testing of philosophy; until then there is a time to visualise, time to act, time to accept and reject and react to the infinite for developing entrepreneurial capacities among school children.

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[2] *Gyan Daarshan* is a satellite TV channel and telecasts 24 hours educational programmes from school level to tertiary level. The channel is a joint effort of Ministry of Human Resourse Development and Ministry of Information and Broadcasting, Government of India with Indira Gandhi National Open Univeersity (IGNOU). It was launched in the year 2000 as an exclusive educational TV channel of India. *Gyan Vani* is an FM band radio station broadcasting educational programme. The channel serves the need of various segments of society such as children, youth, adult population both in urban and rural area. The channel is funded by the Ministry of Human Resource Development, Government of India through IGNOU. The educational programmes are contributed by several educational institutions (government and semi government), NGOs and Ministries such as Human Resource Development, Agriculture, Science and Technology, Environment, Women =, child care , SC/ST etc.