ENTREPRENEURSHIP CURRICULUM

PROJECT REPORT FOR JIP GRANT

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ABSTRACT

This project has been an action–research project with an ultimate aim of preparing instructional material for educators in developing countries to foster entrepreneurship among high school children.

The project was conducted in two phases. In the first phase an extensive research was conducted to understand the link between entrepreneurship and economic growth and the role of entrepreneurship education, identification of entrepreneurial traits, examination of different pedagogy. Research was done through an exhaustive survey of existing literature and through speaking to different educators and organizations in the field of education, especially entrepreneurship education.

In the second phase, the project team identified an implementing partner (Institute of Psychological and Educational Research, India) and developed an entrepreneurship education curriculum for the partner. The curriculum, therefore, is primarily designed for high school students (ages 15-18) in India. However, it can be modified to suit the peripheral age range and used for disseminating to students in any developing country. The curriculum teaches students skills to run a business and, fosters opportunity recognition, innovation, risk-taking and critical thinking among the students.

The curriculum has been designed in the form of a workshop but can be adapted to form a regular semester length course. The pedagogical tools used are essentially interactive and experiential breaking away from the traditional teaching methods that are prevalent in most developing countries. The curriculum is being delivered in the form of a toolkit and has two components: (i) a teacher guide and (ii) a student work book.

RATIONALE FOR THE PROJECT

More than one billion people today are between 15 and 25 years of age and nearly 40 per cent of the world's population is below the age of 20 (ILO, 2007). Eighty-five per cent of these young people live in developing countries where many are especially vulnerable to extreme poverty (ILO, 2007). The International Labor Office estimates that around 88.2 million young women and men are unemployed throughout the world, accounting for 47 per cent of all the 185.9 million unemployed persons globally, and many more young people are working long hours for low pay, struggling to eke out a living in the informal economy. The challenge facing the world today is to make education meaningful and more inclusive to this set of young people around the globe (UNICEF 2000, UNESCO 1996, 2000, 2004 and 2005) Education is widely recognized as one of the most critical means of defeating the challenges of development, poverty, and inequality. However, the current quality of education in developing economies (especially in South Asia) leaves much to be desired. The focus is on rote learning and the education system does not actively encourage students to think on their own and take on responsibilities. It neglects the importance of developing a creative mindset among children, which means that the significance of education as a tool for personal development is severely hampered by such a form of education (UNESCO 1996, 2004).

This was the basis and the genesis for our project. The project team wanted to devise a curriculum, which would address some of the existing deficiencies of the education system, bridging a gap between the needs of the economy of countries and the needs of individual students and identified entrepreneurship and as a key need for economic development and therefore focused our attention on entrepreneurship education. This premise is corroborated by the literature survey that follows.

Entrepreneurship and Economic Growth

As long back as in the 18th century Jean-Baptiste Say, a French textile manufacturer and economist, wrote that the human contribution to economic growth came in three types: scientists, workers, and entrepreneurs (Scott 1933). However, the rise of a definitive economic theory correlating entrepreneurship and economic growth can be traced back to the early works of Schumpeter. Schumpeter saw the entrepreneur playing a key role in the economic world. The Schumpeterian entrepreneur seeks to create new profit opportunities through his innovative activities or 'creative destruction' (Schumpeter 1934). Improved products and more efficient processes of production were developed by the entrepreneur, thereby funneling funnels economic growth and producing a stronger, more efficient economy. Similarly it has been propounded by other economists that the entrepreneur as an innovator and inspirer, the implementer of creative destruction, creating instability, disequilibria, and economic development (Baumol, 1968). The role of entrepreneurship in the economic development process is also explained through the role played by entrepreneurs in the presence of market imperfections (Leibenstein, 1968). Leibenstein notes that in the presence of market imperfections, entrepreneurs are needed to "search, discover, and evaluate opportunities, marshal the financial resources necessary for the enterprise, make time-binding arrangements, take ultimate responsibility for management, and be the ultimate uncertainty and/or risk bearer." This notion is extended by the concept that the entrepreneur identifies and profits from a situation of disequilibrium by improving on market inefficiencies or deficiencies (Kirzner 1973). Furthermore, it is argued that new opportunities themselves emanate from the insights of entrepreneurs (Holcombe 1998). Entrepreneurship, therefore, creates changes, and changes produce more opportunities for entrepreneurship. Holcombe

asserts that, "the engine of economic growth is entrepreneurship." A subsequent study (North 1990) also declares an explicit link between economic growth and the entrepreneur. North claims, "The agent of change is the individual entrepreneur responding to the incentives embodied in the institutional framework." The role of entrepreneurs in economic growth is further endorsed by a subsequent study (Eliasson and Braunerhjelm 1998), which suggests that economic growth stems from human embodied tacit competencies. The critical role of entrepreneurship from a national perspective is also encapsulated in the idea of comparative advantage (Porter, 1990). Porter avers, "Invention and entrepreneurship are at the heart of national advantage. [...]." The link between entrepreneurship and economic growth is also demonstrated by the contribution of small firms in modern economies (Acs 1996). Acs claims that small firms play an important role in the economy, as they are agents of change through their entrepreneurial activity and source of considerable innovative activity, thereby stimulating industry growth and creating new jobs. Audretsch also states, "Entrepreneurship has become the engine of economic and social development throughout the world" (Audretsch 2003, p. 5).

There have been other attempts in recent years to include entrepreneurship in growth models, (Segerstrom, Anant and Dinopoulos 1990, Aghion and Howitt 1992, Helpman 1992, Acemoglu 1995, Henrekson 2002, Aghion and Zilibotti 2003. The knowledge spillover theory of entrepreneurship suggests that entrepreneurship provides a crucial mechanism in the process of economic growth by serving as a conduit for knowledge spillovers (Audretsch, Keilbach, Lehmann 2006). There seems to be a universal consensus on the notion that entrepreneurship to play a decisive role in the virtuous cycle that promotes economic growth (Salgado-Banda 2005).

There is also significant empirical evidence that there is a linkage between entrepreneurship and economic growth. Historically, the industrial revolution owes a lot to the entrepreneurs of this era. Similarly, there is substantial proof of the role of entrepreneurship in European history (Wennekers et al 1997). More recently the growth of the Chinese economy has been significantly contributed by entrepreneurs and the emergence of small firms. "All sorts of small enterprises boomed in the countryside, as if a strange army appeared suddenly from nowhere," remarked Deng Xiaoping, reflecting in 1987 on the first eight years of China's economic reforms (Zhao, 1996, p. 106). These startup firms strengthened the budding market economy by creating jobs, supplying consumer goods, mobilizing savings and ending the state firms' monopoly. The Global Entrepreneurship Monitor (2000 and 2004) concludes that there is a strong relationship between entrepreneurial activities, defined as start-up activities, and economic growth. In the study, this definition of entrepreneurship is claimed to constitute the singularly most important factor for economic growth. Similarly a study of computers and process control instruments firms in the US indicate the role of new entrepreneurial firms in the innovation process (Acs and Audretsch 2001). There is also data, which demonstrates that increases in the birth rate of firms leads, after some lag, to higher levels of productivity (Holtz-Eakin and Kao 2003). Similarly other empirical studies have demonstrated that Venture Entrepreneurship is positively related to GDP growth rate (Tang and Koveos, 2004). It has also been suggested that India's current growth can largely be attributed to the efforts of entrepreneurs coming out of a government-controlled environment to a market based environment (Lal, Anil-K; Clement, Ronald-W, 2005). Based on empirical studies conducted, the Commission of the European Committees (February, 2006) states: "If Europe wants to successfully maintain its social model, it needs more economic growth, more new firms, more entrepreneurs willing to embark in innovative ventures, and more high-growth SMEs".

Entrepreneurship Education and Economic Growth

The education system plays a critical role in the economic advancement of nations since it is the primary developer of human resource. Almost all endogenously growth theory model recognizes that the quality of human resources and thereby the quality of education is vital to the economic growth process.

However, the current quality of education globally, and especially in developing economies, leaves much to be desired. The focus is on rote learning and the education system does not actively encourage students to think on their own and take on responsibilities. The result is that the significance of education as a tool for personal development is severely hampered by such a form of education. Moreover, in most developing economies, there are issues of large-scale dropouts among school children, especially at the secondary level, since they do not see any value attached to their education in securing employment. Even if they drop out with a view to find work, these students are ill equipped to compete for jobs in the urban market. The result is the creation of a large unproductive labor force or what economists call surplus labor. If children were encouraged to stay in school through incentives in education itself supplemented with financial and other incentives, parents and children would be more willing to bear the opportunity cost of enrolment.

Entrepreneurship education is able to address some of the deficiencies in the existing education system. Firstly, the development of entrepreneurial skills in the education system increases the supply of future entrepreneurs in the country. A venture support system based on entrepreneurship education designed to stimulate and facilitate entrepreneurial activities, could result in a lower unemployment rate (McMullan & Long, 1987), increased establishment of new companies, and fewer failures of existing businesses (Hatten &

Ruhland, 1995; Ronstadt, 1985; & Hansemark, 1998). Moreover, given the unemployment problems in most developing countries as well as rising unemployment levels in developed countries in the face of globalization, the development of entrepreneurial skills as well as knowledge and skills in venture creation process prepare students for the realities of life when they graduate. The application of entrepreneurial competencies in daily life empowers students to learn business and enhance their social and life skills. In so doing fosters values and skills that are so dearly needed by today's society.

This view is endorsed by several educators who believe that entrepreneurship education plays a vital role in the economic progress of states. There is also empirical evidence related to entrepreneurial education as an intervention tool for impacting adult attitudes toward entrepreneurship (Ede, Panigrahi, & Calcich, 1998; Hansemark, 1998; Hatten & Ruhland, 1995) and on youth awareness and attitudes about the social and economic desirability of entrepreneurship as a career option (Kourilsky & Walstad, 1998; Walstad & Kourilsky, 1999). Economic commissions and other government advisory organizations are also warming up to the notion that entrepreneurship education plays an important role in economic growth. In the year 2000 the UN Youth Employment Network (YEN) was established under the proposal of the UN Secretary-General, which comprises the UN, the ILO World bank and well-known specialists on youth issues, and provides advice and support for the generation of youth employment opportunity and solution of youth unemployment. The YEN also takes entrepreneurship as one of the four solutions to employment problem. (The four solutions in short refer to four Es, namely: Employability, Equal Opportunities, Entrepreneurship and Employment Creation) (UN 2006).

Similarly, an educational monograph published by the Organization for Economic Cooperation and Development (OECD) entitled "Towards an Enterprising Culture" stated that, "Changes in educational method are needed ... to foster competence in being 'enterprising' as a vitally important qualification needed by the young as they enter society. This competence means having the ability to be creative and flexible, to be able to take and exercise initiative and to be able to solve problems."

In a growing economy like India, there are several proponents of entrepreneurship education. It has been suggested that to enhance India's already rapid economic growth rate, India must now provide opportunities for (1) education directed specifically at entrepreneurial skills, (2) financing of entrepreneurial efforts, and (3) networking among potential entrepreneurs and their experienced counterparts (Lal,-Anil-K; Clement,-Ronald-W, 2005).

THE PROJECT: ENTREPRENEURSHIP CURRICULUM

Based on the research conducted, as elaborated above, the project team was able to identify that entrepreneurship education was indeed a felt need and is critical for economic development. The aim of the project group was therefore to devise a curriculum for developing economies. In so doing it faced four critical challenges: (i) identification of the target group, (ii) defining and measuring entrepreneurship or identifying entrepreneurial traits, (iii) deciding on a particular pedagogy and (iv) content of the curriculum. In order to identify the content and the pedagogy it was critical for us to understand the best practices in the field of entrepreneurship education. We therefore researched the state of entrepreneurship education in different parts of the world, and contacted several organizations, which are leading experts in providing entrepreneurship education or have broken away from the traditional mode of teaching. We contacted organizations both in the developed world (US) and the developing (India) to get a balanced perspective for the content and pedagogy for our curriculum. We have elaborated the steps we followed to design our curriculum hereafter.

Identification of target group

It was crucial for the research team to identify the ideal age group that this curriculum should target. A preliminary research of data reveals that secondary school (ages 11-17) pupils are most likely to drop out of school. Most developing countries have some system of provision of free primary school education, at least in terms of school fees. However this does not extend into secondary schools and parents soon take out their children out of school. This indicated that secondary school students would be an ideal age group for the project team to

target.

It is believed that the ideal stage to acquire basic knowledge about entrepreneurship and to foster a positive attitude towards entrepreneurship is during childhood and adolescence years (Filion 1994; Gasse 1985). Gasse in fact recommends that entrepreneurial potential should be identified and evaluated at the secondary school level, during the developmental stage when the possibility of self-employment as a career option is still open. However, studies reveal that university-based entrepreneurship curricula has attracted the bulk of research within the area of entrepreneurship education (Gorman, Hanlon et al. 1997; Young 1997, Vesper 1990) leaving a gap in the literature pertaining to pre-university entrepreneurship and enterprise programs. However, entrepreneurship development in primary and secondary schools is receiving growing attention (Donckels 1991; Gasse 1985; Kourilsky 1995) because students in these age groups have expressed a desire to participate in entrepreneurship education programs.

Based on student enrollment data and drop out rates and research as enumerated above it was decided to target students in high school in the age group of 15-18 in developing countries.

Entrepreneurship Education: A Survey of Different Countries

We surveyed the status of entrepreneurship education in different countries. Our study indicates that entrepreneurship education exists mostly in the secondary vocational medium or at the graduate level through business management courses. Although in many developed countries, the existing curricula encourage students to take initiative and responsibility, examples of more explicit entrepreneurship education are few. The main players in the field of entrepreneurship education are non-profit organizations assisted by the private sector. Coherent initiatives or educational programs on entrepreneurship by state authorities are still rare in the field of school education.

In Poland, "Basics of Enterprise" is a compulsory subject in secondary vocational schools. Objectives include developing entrepreneurial attitudes and learning to start a business. In Austria, entrepreneurship is part of the curriculum of secondary level technical vocational education, for example in the form of students running a fictitious firm. Ireland runs programs like the Transition Year and the Leaving Certificate Vocational Program, which provide students with an opportunity to experience entrepreneurship. The German Vocational Training System offers some real life learning by placing students both in the school and the firm and offering them an opportunity to set up their own companies in the final phase of their training. The government of Netherlands provides support in the form of development of teaching materials and training to teacher for pilot projects on entrepreneurship education in secondary schools. In Norway, Young Enterprise Norway is a partner for the Government in implementing the Strategy for Entrepreneurship Education. In 2004, 14 percent of all students leaving upper secondary school had participated in the Student Company Program. The past decade has witnessed an explosion in the number of entrepreneurship education programs in the USA. There are several well known actors including the National Foundation for Teaching Entrepreneurship (NFTE) which has both a nation wide presence as well as collaborations with other organization in several other countries. Furthermore the Consortium for Entrepreneurship Education (CEE), which was founded in 1982 in response to a Policy Paper from the US department of Education, has developed content standards for entrepreneurship education in schools. But even in the US there is a wide gap between demand and supply. In a testimony to the house of representatives, representative of CEE (June 07, 2006) reveal that in a poll by Gallup organization, conducted in conjunction with the

Kauffman Foundation found that 70 percent of students polled at the high school level wanted to start their own business and yet only 44 percent had any basic knowledge regarding entrepreneurship.

Data from developing countries on the entrepreneurship education is patchy. A study on Kenya, Botswana, Uganda (World Bank 2002) reveals that entrepreneurship education is essentially provided through technical and vocational training (TVET) and the pedagogy essentially remains limited to traditional classroom teaching even though the learning outcome is to teach students on how to start and run a business. The data for most of other developing nations is very similar. Entrepreneurship education is either limited to university level education or to vocational training institutes.

Entrepreneurship Education: Survey of Organizations

In an attempt to understand the pedagogy used in entrepreneurship education in developed as well as developing countries, we surveyed some of the organizations imparting entrepreneurship education in the USA and India. These organizations have produced some of the best practices in the field and are widely acclaimed in the field of entrepreneurship education. Inputs from these organizations were taken through face-to-face interviews, phone interviews and through e-mail communication. Their inputs have formed a critical part of our assessment of what works in entrepreneurship education and what does not. You will find below a summary of the focus of their work and target groups and pedagogy. Annex B lists the addresses and contact persons of each of these organizations. We hope this will be of use to others working or aiming to work in the field of entrepreneurship education.

UNITED STATES

Making Cents International

Making Cents International is a consulting firm committed to job creation and improved livelihoods and opportunities through training and services for entrepreneurs, in the USA and worldwide. The organization specializes in providing innovative education materials and training for organizations offering youth entrepreneurship or adult micro and small enterprise training. Making Cents' Entrepreneurship and Business Management curricula are extremely effective tools for creating, strengthening and supporting current and future entrepreneurs. The effectiveness is rooted in the experiential-learning methodologies that the curricula use. Through simulations, structured discussions, participatory exercises and peer-learning techniques, experiential-learning methodology brings real-life experience and opportunity into the training room and creates learning that is relevant, immediately applicable and long-lasting. Curricula include practical application such as writing a business plan and setting-up and running a mini-business during the training course.

Empowerment Group

The Empowerment Group is a non-profit organization located in Kensington, North Philadelphia. Their mission is to accelerate economic growth in distressed urban communities by cultivating local entrepreneurship to create positive, lasting change for our clients, their families and their communities. They offer entrepreneurship training and resources for entrepreneurs of all ages and backgrounds. The Empowerment Group runs The Youth Entrepreneurship Program (YEP) is a hands-on program run at after-school and summer programs throughout Philadelphia. These classes introduce youth to entrepreneurship and business planning by having them plan and implement their own business ideas, right there at their own after-school or summer program! Instructors create a business environment by having students break into business departments, fill out time sheets, sign memorandums of agreement and create actual businesses and written business plans. The Youth Entrepreneurship Program began in May 2003 by offering classes at one after-school organization. Students in that first class held a series of snack stands as their business project at their after-school program and ensuing summer program. The program quickly grew in response to the high demand for youth entrepreneurship classes and the following school year there were YEP classes at six organizations. In the last 3¹/₂ years of operation, over 500 students have participated in YEP classes and learned how to start their own businesses.

Corporation for Enterprise Development (CFED)

CFED is a nonprofit organization that expands economic opportunity. Established in 1979 as the Corporation for Enterprise Development, CFED works to ensure that every person can participate in, contribute to, and benefit from the economy by bringing together community practice, public policy, and private markets. The organization identifies promising ideas; tests and refines them in communities to find out what works; crafts policies and products to help good ideas reaches scale; and fosters new markets to achieve greater economic impact. Since the early 1980's, REAL entrepreneurship program from CFED has been working to make entrepreneurial training accessible to the communities and people who need it most. Initially designed to help rural high school students, REAL now serves people of all ages and communities of all sizes. It provides curricula, training, and resources to help rural America grow through hands-on entrepreneurship education that prepares active, self-sufficient and productive citizens to contribute to their communities' social and economic development.

Junior Achievement

Junior Achievement uses hands-on experiences to help young people understand the economics of life. In partnership with business and educators, Junior Achievement brings the real world to students, opening their minds to their potential. Junior Achievement has several highly effective programs for middle grade and junior high school students that reinforce the value of education and teach students about the future economic benefits of staying in school. Students will be introduced to many economic concepts and useful facts about the working world. The programs help teens make difficult decisions about how to best prepare for their educational and professional future. The programs supplement standard social studies curricula and develop communication skills that are essential to success in the business world.

National Foundation for Teaching Entrepreneurship (NFTE)

National Foundation for Teaching Entrepreneurship (NFTE), a 501(c)(3) non-profit organization, was formed in 1987 with an aim to create a program to bring entrepreneurial education to low income youth. The program has a proven track record of success. It is frequently used as a model for other programs to teach business knowledge and the resulting business formation. NFTE has reached over 150,000 young people since its founding and has programs in 28 states and 13 countries outside the United States. NFTE develops curriculum, trains teachers, and provides ongoing support for NFTE classes in schools, after-school programs and on line through BizTech 2.0. NFTE offers entrepreneurship courses through schools, after school programs, summer camps, and on-line through BizTech 2.0. Each student in the program writes and presents a business plan. They have the opportunity to win venture capital grants for as much as \$1,000 through NFTE-sponsored Business Plan competitions.

Youth Venture

Youth Venture enables young people to learn early on in life that they can lead social change. Youth Venture thus inspires and invests in teams of young people to start and lead their own social ventures, and is building a powerful network of young change makers across the world. It is currently operating in the US, Mexico, Argentina, Brazil, India, South Africa, Thailand, France, Germany, and Spain.

INDIA

Azim Premji Foundation

Wipro: Mission Education is a social initiative to improve the quality of education in India. It engages with schools, parents, education boards and other social organizations to create a desire for change and to steer this movement. We are currently working with more than a dozen partners in over 800 schools in 14 states across the country. Our projects range from training programs for teachers and school leaders to concerted efforts for transforming entire schools.

Eklavya Foundation

Eklavya is a non-profit, non-government organization that develops and field tests innovative educational programs and trains resource people to implement these programs. It functions through a network of education resource centers located in Madhya Pradesh. For over two decades, Eklavya has sought to relate the content and pedagogy of education – both formal and non-formal - to social change and the all-round development of the learner. It evolves learner-centered teaching methodologies that foster problem-solving skills in children and encourage them to ask questions about their natural and social environment. This approach helps children become life-long self-learners. Eklavya looks at innovation holistically, which means that reforms in classroom practices are accompanied by reforms in examination systems, teacher training methods and the way schools are managed. It also means that learning spaces are extended beyond the school into the community.

I Create

I Create, Inc., is a non-profit 501c (3) organization dedicated to providing Integrated Entrepreneurship Training to the disadvantaged communities in India in both rural and urban areas. In partnership with NFTE, New York, I Create started its operations in India in the year 2000. In the past seven years, I Create has grown to be a National organization with Regional Centers in the East, West, North and South of India. In the East we have I Create, West Bengal, (ICWB) with offices in Kolkata, in the West, I Create, Gujarat, (ICG) with offices in Baroda, in the North, I Create, Rajasthan with offices in Jaipur and in the South, I Create, Karnataka with offices in Bangalore. From its four Regional Centers, I Create trains the trainers (600 now and growing), conducts Aspiring Entrepreneurship Workshops (2000 have been trained and 750 entrepreneurs created), business plan competitions and much more. Leveraging the program through existing schools colleges and NGOs, over 25000 have been provided introductory level training in entrepreneurship and business employability skills. I Create has "adopted" villages and low-income urban areas in its four Regions. In addition to entrepreneurship training, I Create provides mid-day meals or nutritious snacks in selected village High Schools where our entrepreneurship program is taught. In some urban and rural areas I Create provides seed money to aspiring entrepreneurs, in some villages it holds health camps and adult literacy classes.

Pravah

Pravah is an Indian non-profit organization founded by a group of young professionals with a view to influence societal issues. It aims to equip young people with skills essential to building sensitivity and responsibility towards the society we live in, and developing them into change-makers of the future. Pravah works mainly with adolescents in over 30 schools in around Delhi. The program, making change-makers, uses interactive creative methods to help students clarify their values and develop a positive attitude towards engaging with social issues. The curriculum includes components such as self awareness, team building, leadership, problem solving, win-win attitude, conflict resolution, and awareness of social issues. Pravah also works with school teachers with the skills to design and facilitate relevant curriculum in order to mainstream their program. Additionally, they conduct fun camps for urban students and campaigns to raise awareness of social issues and life skills. The camps take the students through an extensive experiential learning process, helping them break stereotypes, understand diversity, equality and co-existence. Sports, art, music, theater and adventure are intrinsic to these camps.

Definition of Entrepreneurship/Identification of Entrepreneurial Traits

It is very difficult to provide a single definition of entrepreneurship. Also, definitions of entrepreneurship typically vary between the economic and management perspectives (Audretsch, 2003). A purely theoretical or economic approach leads to difficulties in making the concept operational. On the other hand an entirely operational or management description of an entrepreneur captures only particular facets of an entrepreneur. Entrepreneurship researchers are, therefore, hampered by the lack of a common conceptual framework for the concept entrepreneurship (Bygrave and Hofer 1991, Audretsch, 2003, Wennerkers and Thurik, 1999). An interesting combination of these perspectives is reflected by the definition chosen in the Green Paper Entrepreneurship in Europe (European Commission, 2003): "Entrepreneurship is the mindset and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management, within a new or an existing organization".

However, we have attempted to identify a few key traits based on a survey of existing literature on entrepreneurship.

Different authors have used the concept of entrepreneurship differently (Schumpeter 1934 and 1947, Long 1983, Baumol 1990 and 2002, Gartner 1989, Low and MacMillan 1988, Winslow and Solomon 1993, Kay 1986, Hills et al. 1997, Morris, Lewis, and Sexton 1994, Vosloo 1994, Bygrave & Hofer 1991, McClelland 1965, McClelland and Winter 1969, Timmons 1986, Hébert and Link 1989, Casson 1991, Ward 2004, Knight 1921, Kourilsky 1980, Gorman 1997, McClelland 1961).

Perhaps the most influential conception of the entrepreneur belongs to Joseph Schumpeter who wrote that entrepreneurs have a desire to "found a private kingdom, drive to overcome obstacles, a joy in creating, and satisfaction in exercising one's ingenuity" (Schumpeter,

1947). Schumpeter's notion of "creative destruction" (Aghion and Howitt 1998) is a competitive process in which entrepreneurs are continuously looking for new ideas that will render their rivals' ideas obsolete. The fundamental element that induces this creative destruction is innovation. Baumol in his 1990's paper, 'Entrepreneurship: Productive, Unproductive and Destructive', differentiated between several forms of entrepreneurship. He mentions that entrepreneurs are individuals who are ingenious and creative in finding means that add to their own wealth, power, and prestige. Finally, to Baumol the entrepreneur is an innovator. He says, "The bold and imaginative deviator from established business patterns and practices, who constantly seeks the opportunity to introduce new products and new procedures, to invade new markets, and to create new organizational forms." Gartner argued similarly that the central fact of entrepreneurship is organizational creation. Accordingly, he proposed that research in the field of entrepreneurship focus on the process of new venture creation and the role entrepreneurs have at that birth. Low and MacMillan similarly defined entrepreneurship as "the creation of new enterprise." Winslow and Solomon seem to take for granted that creativity and entrepreneurship are similar, if not the same. Kay concluded that creative factors play a great role in entrepreneurial decision-making. Hills et al. have found that 90 percent of those surveyed by them find creativity very important for opportunity identification. Morris, Lewis, and Sexton conducted a content analysis of key words and phrases included in the various definitions of entrepreneurship appearing in leading academic journals, popular textbooks, and major publishing houses. They found that "starting/founding/creating new business/venture" and "innovation/new products/new market or pursuit of opportunity" are the two most frequently utilized definitions of entrepreneurship. Vosloo suggests that the entrepreneur might be an opportunity maximizer when defining an entrepreneur "as a person who has the ability to explore the environment, identify

opportunities for improvement, mobilize resources and implement action to maximize those opportunities [sic.]". According to Bygrave and Hofer entrepreneurship "involves all the functions, activities, and action associated with the perceiving of opportunities and the creation of organizations to pursue them". Ward states that entrepreneurs face many significant challenges, not the least of which is generating or recognizing ideas that have the potential to be developed into appealing goods or services. Casson extends this to characterize entrepreneurs as decision makers who improvise solutions to problems, which cannot be solved by routine alone.

The link between risk taking and entrepreneurship goes as far back to Richard Cantillon, the 18th century businessman and economist. For Cantillon, (Spiegel, 1983 and Barreto, 1989) the central component of the definition of entrepreneurship revolved around the concept of risk taking, which was rarely encountered by the independently wealthy land owning class or the salaried worker at that time. Cantillon described entrepreneurs as traders or undertakers as a class of agents who risked their own capital and made decisions on market transaction in the face of uncertainty. Knight defines entrepreneurship as dealing with uncertainty, making a distinction between risk, which can be calculated, and uncertainty, which cannot. Later research concluded that, to a moderate extent, entrepreneurs are risk takers (McClelland 1965, McClelland and Winter 1969, and Timmons 1986). Jean-Baptiste Say, the 18th century French economist declared that the entrepreneur's role was to coordinate the other elements of production such as capital, labor, and land, produce products, estimate demand, and market the product. Kourilsky suggested the following are the most relevant: need for achievement; creativity and initiative; risk taking and setting objectives; selfconfidence and internal locus of control; need for independence and autonomy; motivation, energy and commitment; and persistence. Gorman maintained that propensity toward entrepreneurship is associated with

several personal characteristics: values and attitudes, personal goals, creativity, risk-taking propensity, and locus of control. McClelland proposed achievement motivation, risk taking and locus of control as important characteristics.

It may be argued that entrepreneurship covers at least three dimensions: (dealing with) risk and uncertainty, the perception of profit opportunities or opportunity recognition, and innovation and change (Hébert and Link, 1989). Long concludes that three traits have, to varying degrees, been included in the definition of entrepreneurship: "uncertainty and risk," "complementary managerial competence," and "creative opportunism."

Based on the above we concluded that a number of personal attributes have been suggested as predictors of entrepreneurial behavior in the literature on of entrepreneurs, with some degree of concurrence. Accordingly for the purposes of this project the group identified three key entrepreneurial traits: opportunity recognition, risk -taking, creativity. These were incorporated in the design of our curriculum along with the attempt to foster critical thinking.

Measuring entrepreneurship

The project team felt the need to identify a measurement for entrepreneurship in order to assess the efficacy of the curriculum. The Global Entrepreneurship Monitor (GEM) project, which is mainly based on surveys and expert interviews, defines an entrepreneur as anyone creating or running a start-up (less than three months old) or a baby business (four to forty two months). Any other macro level definition of entrepreneurship focuses on the rate of creation of new start-ups as a measure of entrepreneurship. However, due to the lack of singularity of definition of entrepreneurship it is very difficult to understand individual differences in entrepreneurship (Markman *et al.* 2002). One source of the difficulty is the

absence of tools to measure the probability of entrepreneurship, short of waiting 15 to 20 years to see which individuals do indeed start companies.

Although prior research has debated whether entrepreneurial characteristics are innate, recent findings support the idea that psychological attributes associated with entrepreneurship can be culturally and experientially acquired (Vesper, 1990; Gorman, 1997). Individuals are predisposed to entrepreneurial intentions based on a combination of personal and contextual factors (Boyd & Vozikis, 1994). Personal factors such as prior experience as an entrepreneur and contextual factors such as job displacement have limited applicability to entrepreneurial propensity among youth. Psychological attributes, on the other hand, have produced the most support for predicting whether a person will pursue entrepreneurship (Wayne, Watson, Carland, & Carland, 1998). Accordingly, the project group assumed that a measurement of the difference in psychological attributes to curriculum intervention would indicate the level of efficacy of the curriculum. The project team therefore tried to identify a suitable scale for measurement of personal attributes that predict entrepreneurial behavior in individuals.

One of the scales under consideration was the need for achievement (N Ach), which was designed by McClelland. The need for achievement (N ach) is based on expectations of doing something better or faster than anybody else or better than the person's earlier accomplishments (McClelland, 1958). It is also a process of planning and striving for excellence (Hansemark, 1998). McClelland (1965) established that founders of business have a higher level of Need for Achievement and achievement motive is an important factor for economic development and business growth (McClelland 1965). Similarly, a significant increase in N Ach scores of young adults was seen in an entrepreneurial program (Hansemark 1998).

A similar construct, self-efficacy, relates to the strength of a person's belief that he or she is

capable of successfully performing specific roles and tasks (Bandura 1977). Self-efficacy has been proven to be a consistent predictor of behavior in a vast array of human behaviors (Stajkovic and Luthans 1998). Without self-efficacy, individuals give up trying to accomplish their goals, making self-limiting decisions that foreclose opportunities even though individuals have the necessary skills to follow a path of action (Bandura 1986). Entrepreneurial self-efficacy, or confidence in one's ability to perform tasks central to starting companies, is considered by the literature to be a requisite for the development and maintenance of interest in and intention to start a new venture (Anna et al. 2000, Baum and Locke 2004, Boyd and Vozikis 1994, Chandler and Jansen 1992, Chen et al. 1998, Krueger 1993 and 2000, Krueger and Dickson 1994, Gorman 1997, Krueger and Brazeal 1994, Markman et al. 2002). Self-efficacy is a concept analogous to internal locus of control and it has been shown that internal locus of control will lead to a positive entrepreneurial attitude (Robinson 1991). Research in organizational contexts also show that perceived self-efficacy leads to optimism and a higher propensity to see opportunities rather than threats in any given situation (Neck and Manz, 1992, 1996). Krueger and Dickson and Krueger and Brazeal show that entrepreneurial optimism is related to self-efficacy beliefs. Entrepreneurial self-efficacy is a belief-based construct and specifically relates to personal control (Chen et al. 1998). Gorman maintained that the transfer of knowledge and the development of relevant skills should increase self-efficacy and the effectiveness of the potential entrepreneur.

We have decided to use the measure of self-efficacy as for the purpose of testing the efficacy of our curriculum based on the existing research as well as giving due consideration to the ease of implementation. The questionnaire used to measure self-efficacy (Bandura, 1977) is provided in Appendix 1.

Pedagogy

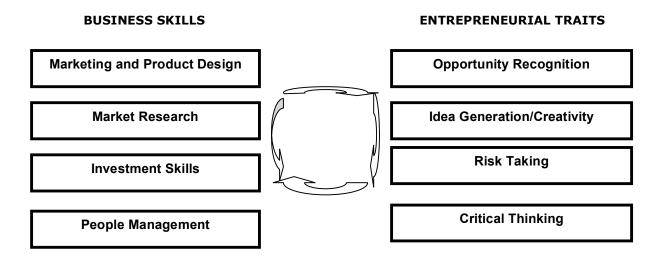
Our earlier discussion in the paper indicates a strong positive correlation between education and entrepreneurship. However, it has been argued that formal education in general does not encourage entrepreneurship. It has been variously suggested that formal education prepares students only for the corporate domain (Timmons 1994), promotes a 'take-a-job' mentality (Kourilsky 1995) and suppresses creativity and entrepreneurship (Chamard 1989; Plaschka & Welsch 1990, Singh 1990). It has been suggested that school systems need to reoriented their content and pedagogy to foster entrepreneurship.

To promote entrepreneurship, specialized courses are becoming increasing popular common in tertiary institutions (Solomon & Fernald, 1991) and enterprise education is being used to foster entrepreneurial behavior (Donckels 1991; Gasse 1985). It has been suggested that not only does the content need to be changed but the entire school culture needs to be developed which encourages teamwork, lateral thinking, and reflective learning as well building enterprising teachers (Itao, 97). Entrepreneurial education therefore needs to focus on knowledge of small business ownership and self-employment, as well as entrepreneurial skills and attributes which cannot be fostered through traditional teaching methods.

Researchers indicate that using learning style preferences that include active experimentation, balanced with concrete experience and abstract conceptualization can enhance entrepreneurial propensity (Gorman, 1997). The use of behavioral simulations has also been in teaching entrepreneurship (Stumpf, Dunbar, and Mullen (991). McMullan and Long (1987) proposed that entrepreneurship education should include skill-building components such as negotiation, leadership and creative thinking, exposure to technological innovation and new product development. Vesper and McMullan (1988) argued that entrepreneurship program should also teach skills in detecting and exploiting business opportunities, as well as incorporate

detailed and long-term business planning. Plaschka and Welsch (1990) introduced the concept of transition stages of entrepreneurship education suggesting programs geared toward creativity, multi-disciplinary and process-oriented approaches, and theory-based practical applications. Gibb (1993) proposed a model of enterprise education appropriate to primary and secondary school curricula. Critical elements of the model were the incorporation of enterprise into the classroom environment, a project management task structure, and an enterprising teaching mode. The combination of these elements was expected to stimulate enterprising behavior, skills, and attributes in students.

Consistent with these pedagogical criteria and our own identification of entrepreneurial traits based on existing literature survey, we devised a curriculum that would involve teaching business skills as well as fostering entrepreneurial behavior.



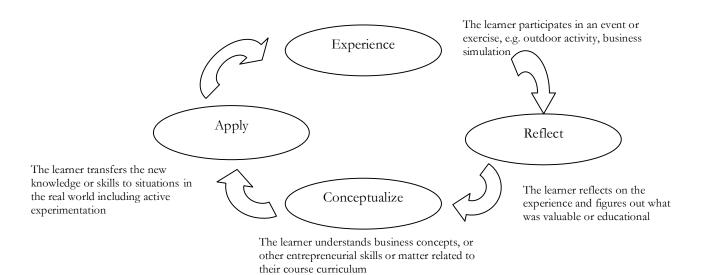
To understand cognitive cycles and learning behavior on which to base these approaches we looked into Experiential Learning Cycles (ELCs). ELCs draw on experiential education principles, which are largely based on the educational philosophy of John Dewey (Dewey, 1937). They are distinct from other models of learning, such as behavioral models or social

learning models, in two notable ways:

1. Experiential Learning Cycles (ELCs) treat the learner's subjective experience as of critical importance in the learning process.

2. Experiential Learning Cycles propose an iterative series of processes, which underlies learning. Depending on the model, there is anywhere between one stage through to six stages of learning to be considered.

Experiential Learning Cycles are commonly used to help structure experience-based training and education programs, which is one of the reasons why we found them particularly useful. Each Lesson Plan in our curriculum has been constructed using an experiential learning model and involves mini lessons of short durations interspersed with activities and games to reinforce learning objectives. For our purpose we have used the Kolbian model of experiential learning (Kolbe 1984).



In our lesson plan semi-structured experiential techniques involved completing a group task or project that simulated business situations.

FINAL OUTPUT

The final output of this work is the design of an entrepreneurship curriculum to be used in a high school setting. The course has been designed like a workshop whose ultimate aim would be for students to design, build their own products or services and then market and sell them. The advantage of this approach is that the curriculum and pedagogy so designed can be used even in non-formal education centres, which will widen the population that the project can impact. However, the curriculum and lesson plans have been designed keeping in mind that it can be easily tailored so that it can be mainstreamed into most schools. Our final output has two components:

Teacher Guide: This guide contains detailed lesson plans and is for using as a tool by teachers to impart entrepreneurship education in school.

Student work-book: The teacher guide is complemented by a student work –book which we believe will facilitate learning for the students and re-emphasize concepts imparted during class room session. The student work book also details out activities that students are expected to take part during course work.

Both these outputs are being presented as separate attachments. The project team has also identified an implementing partner (Institute of Psychological and Educational Research (IPER)) and these toolkits (teacher guide and student work book) have been handed over to them for a pilot test before a wider dissemination is conducted.

The curriculum is available online at: http://entrepreneurshipforkids.com/default.aspx .

We created this website to enable teachers and educators to download the curriculum directly from the web. The website also includes animations based on the lives of Mona and Jay, two teenage characters that we created for the students to identify with. Providing a visual representation of these two characters and their problems makes students more easily grasp related educational materials. As learners, students learn and absorb material more quickly if it is supported with illustrations, photos, and other graphics. Images grab our attention; they add a reinforcing dimension to any communication.

IMPLEMENTING PARTNER

IPER was founded in 1991 under the stewardship of Arun Ghosh, a noted educationist and an awardee for Child welfare by the Indian government. IPER is based out of Kolkata, India. Over the last three decades IPER has grown from strength to strength through commitment o its team of staff members, patrons and friends. During this period IPER launched and successfully completed a number of projects on different social issues. The findings of many projects have contributed towards policies and decisions which in turn have helped implement programmes for the deprived and disadvantaged children. The focus of these programs is on education, health, nutrition, vocational training and recreation. IPER's area of concern include the disadvantaged population of the city with a special focus on children and women who can be described to be doubly disadvantaged. The children IPER work with are child labor, street children, trafficked child, abused child, children in conflict with law, mentally challenged and the out of school children. IPER has worked with several international organizations like the United Nations Children's Fund (UNICEF), International Labor Organization (ILO) as well with state level and country level organizations in India. Apart from student-focused courses, they also have a full-fledged teacher-training institute which has been accredited by the state government. Although it has previously run child-empowerment programs, especially in context of children prone to drug-abuse it has never conducted an entrepreneurship course.

The project team chose IPER because of a number of reasons. It felt that IPER had the necessary expertise and wherewithal to disseminate entrepreneurship education to a varied audience within our target group. Moreover, their past experience with working with the government could perhaps provide us with a conduit for advocating mainstreaming entrepreneurship education in state run schools. We are also extremely impressed with their

receptivity towards new approaches to education and impressed with their own attempts to break away from traditional methods of teaching.

The project group had originally planned to run a pilot-test with the implementing partner which has not so far taken place and which is an objective that they would continue to pursue.

LIMITATIONS AND RECOMMENDATIONS

The project group has not been able to test the efficacy of the curriculum and see if delivery of this course does indeed lead to an increase in propensity towards entrepreneurship or enhancement of the entrepreneurial abilities of the students. This is definitely an area that the project team would like to work on in future.

ANNEXURE I

Self –efficacy questionnaire: Of all the thoughts that affect human functioning, and standing at the very core of social cognitive theory, are self-efficacy beliefs, "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura , 1977, p. 391).

	Strongly Disagree	Somewhat disagree	Somewhat Agree	Strongly Agree
1) I can always manage to solve difficult problems if I try hard enough.				
2) If someone opposes me, I can find means and ways to get what I want.				
3) It is easy for me to stick to my aims and accomplish my goals.				
4) I am confident that I could deal efficiently with unexpected events.				
5) Thanks to my resourcefulness, I know how to handle unforeseen situations.				
6) I can solve most problems if I invest the necessary effort.				
7) I can remain calm when facing difficulties because I can rely on my coping abilities.				
8) When I am confronted with a problem, I can usually find several solutions.				
9) If I am in trouble, I can usually think of something to do.				
10) No matter what comes my way, I'm usually able to handle it				

ANNEXURE II

The Empowerment Group 2111 North Front Street, Philadelphia PA 19122 Ms. Laura Gumpert http://www.empowerment-group.org/

 Making Cents International 2900 M Street NW, Suite 200, Washington, DC 20007 USA Ms. Fiona Macaulay

3. Corporation for Enterprise Development (CFED) 777 N Capitol St NE Suite 800, Washington DC 20002 Ms. Emily Appel. http://www.cfed.org/home.m

4. Junior Achievement

1725 I St., NW, Suite 200, Washington, DC 20006 (202) 777-4470 Ms. Unique Morris http://www.ja.org/default.asp

5. NFTE

John Walston, Program Manager, Office of Program Partnerships National Foundation for Teaching Entrepreneurship 120 Wall Street, 29th Floor New York, NY 10005

6. Wipro Applying Thought In Schools Team

Wipro Ltd. Doddakannelli, Sarjapur Road, Bangalore-560035 Phone: 080- 8440076 e mail: <u>applying.thought@wipro.com</u> Mr. Anand Swaminathan

7. Eklavya Foundation

E-7/H.I.G. 453, Arera colony, Bhopal, Madhya Pradesh, India 462 016

8. I Create Inc

6 Crest Lane, Fanwood, New Jersey 07023 USA Phone: (703) 893-4751 ,Email: <u>icreateinc@gmail.com</u>

9. PRAVAH

2nd Floor, C-24B, Kalkaji, New Delhi 110019 Tel: (+91-11) 2629-1354, 2621-3918, 2644-0619 Email: info@pravah.org, younginf@younginfluencers.com Web presence: <u>www.younginfluencers.com</u>

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