



United Nations
Educational, Scientific and
Cultural Organization



THE
STRATREAL
FOUNDATION

Partnership for
Entrepreneurship
Education

Entrepreneurship Education in the Arab States

A Joint Project between UNESCO and StratREAL Foundation, U.K.

**Case Studies on the Arab States
(Jordan, Tunisia, Oman, and Egypt)**

and

Regional Synthesis Report

Prepared by:

Dr. Munther Masri, Jordan (Team Leader)

Dr. Mohamed Jemni, Tunisia

Dr. Ahmed M. Al-Ghassani, Oman

Dr. Aboubakr A. Badawi, Egypt

(Draft, April 2010)

The project Entrepreneurship Education in the Arab States is implemented jointly by the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training-Bonn and the UNESCO Regional Bureau for Education in the Arab States – Beirut. It is funded by the StratREAL Foundation, UK.

For more information:

**UNESCO-UNEVOC International Centre for
Technical and Vocational Education and Training – Bonn**

UN Campus

Hermann-Ehlers-Str. 10

53113 Bonn

Germany

Tel.: +49- 228 8150-100

Fax: +49- 228 8150-199

E-mail: bonn@unesco.org

<http://www.unevoc.unesco.org>

UNESCO Regional Bureau for Education in the Arab States – Beirut

Cite Sportive – Bir Hassan

P. O. Box: 11-5244

Beirut – Lebanon

Tel: +961 1 850 013/4/5

Fax: +961 1 824 854

E-mail: beirut@unesco.org

[http:// www.unesco.org/beirut](http://www.unesco.org/beirut)

© UNESCO

LB/2010/ED/PI/34

The opinions, ideas and terminology presented and used in the study are those of the authors and do not necessarily represent UNESCO's opinion towards Member States.

Table of Contents

Foreword.....	4
Executive Summary.....	5
1. Case Study on Jordan, Dr. Munther Masri	10
2. Case Study on Tunisia, Dr. Mohamed Jemni	33
3. Case Study on Oman, Dr. Ahmed M. Al-Ghassani	52
4. Case Study on Egypt, Dr. Aboubakr A. Badawi.....	83
5. Regional Synthesis Report, Dr. Munther Masri	117
References.....	146
Annexes.....	152
(1) Research Team and UNESCO Coordination Team	152
(2) Acronyms	153

Foreword

Entrepreneurship Education (EPE) in the Arab States is a joint project between UNESCO and StratREAL Foundation, United Kingdom, which includes two main components:

Component 1: Collection, systematization and dissemination of innovative and successful experiences of EPE from different countries of the region (2009-2010)

Component 2: Providing technical support to the development of strategic plans to facilitate the incorporation of the concept of EPE in the educational systems (2010-2012).

UNESCO-UNEVOC International Center for TVET- Bonn is taking the lead in the implementation of the project, in cooperation with UNESCO Regional Bureau for Education in the Arab States – Beirut. Other UNESCO Field Offices in the Arab region are also involved in the project.

The National Centre for Human Resources Development (a UNEVOC Centre in Jordan) had been commissioned for the implementation of component one (2009-2010). Education experts from four countries (Egypt, Jordan, Oman, and Tunisia) prepared case studies on the current situation of entrepreneurship education (Sections 1- 4). Based on the four country case studies, a regional synthesis report (Section 5) was prepared, which highlights the national and regional contexts and expectations of EPE in the Arab region. The document will be disseminated in Arabic and English to promote EPE in the education systems of Member States in the region.

UNESCO would like to thank all policy makers who contributed to the case studies and the regional synthesis report, especially H.E. Dr. Munther Masri, President of the National Centre for Human Resources Development-Jordan. The effort of the research team and UNESCO coordination team have been effective in the implementation of component one of the project. We expect that the case studies and the regional synthesis report will enhance more cooperation between education institutions and other partners/stakeholders on promotion of EPE in the Arab region.

L.Efison Munjanganja
Officer in Charge
UNESCO- UNEVOC, Bonn

Abdel Moneim Osman
Director
UNESCO Regional Bureau - Beirut

Executive Summary

Four case studies on Jordan, Tunisia, Oman, and Egypt were conducted by a research team in the Arab region, as part of component one of the entrepreneurship education (EPE) project in the Arab States (2009-2012). The methodology used in conducting the case studies included desk review of relevant documents and reports at the country level, analysis of data and information on the education system, discussions with key officials/specialists, and two workshops held by the NCHRD-Jordan for the research team (August and December 2009) on outcomes and results of the four case studies. The analysis were linked to socio-economic development, with emphasis on how to use EPE in enhancing youth and graduates employment in the private sector and providing young generation with knowledge and skills on how to manage and open small and medium enterprises (SMEs).

The *first case study on Jordan* focuses on the extent to which several aspects of EPE are conducted in the different areas of the Jordanian educational system. A 1994 law outlines the overall philosophy of the Jordanian educational system and emphasizes a wide variety of entrepreneurial characteristics of students, in order to acquire during their schooling. Such EPE characteristics can start in basic education, and then continue in secondary education programmes (academic or vocational education). Moreover, higher education and technical education in community colleges were surveyed for teaching and learning experiences related to EPE. The reform plan for the educational sector (2003) emphasized that entrepreneurial life skills and mindsets such as innovation, initiative, problem solving, and critical thinking are major goals of education in Jordan. While the policy framework for EPE is well developed, there is a need for improvement at the implementation level, regarding skills-oriented teaching and learning. In the vocational education and training programmes, students can be exposed to practical entrepreneurial environments, mainly during training periods at the workplace. Students can acquire necessary information and skills related to self employment and the establishment of small enterprises. Other possibilities to enhance EPE in Jordan are the projects financed by the Educational Innovation Fund to improve efficiency, innovation, sustainability and competition in education (i.e. the knowledge-economy project). Many of these projects have a practical approach to labour market oriented teaching and learning. In addition to the government initiatives,

there are several NGOs or non-profit organizations programmes and initiatives with international and donor organizations that focus on EPE. Awards and incentives such as the Queen Rania Al-Abdullah Award for Excellence aim to enhance the culture of innovation and entrepreneurship through spreading awareness about distinguished performance concepts.

The *second case study on Tunisia* addresses the challenges that the country education system faces due to recent demographic and economic developments, as well as the ways in which entrepreneurship education can be an important factor in overcoming these challenges. Currently, 62% of the Tunisian population is of working age, and this number is increasing. The number of enrolled students is also rising in all levels of education (basic, secondary, and higher education). There is a significant effort needs to be made to boost the pace of job creation and to increase the employability of school graduates. Statistics indicate that 80,000 new jobs need to be created each year to meet this rising demand for jobs. Managing this additional demand requires a reorientation of the Tunisian education system towards competency-based teaching and learning, as well as the promotion of an entrepreneurial spirit and key skills in all aspects of education. Such educational reform was started in 2002. It focuses on teaching students and adolescents behaviors and attitudes that help them to cope with the fast pace of an open-market capitalist society. The reform redefined the roles of schools to include concepts of competency, cost, quality, employability and entrepreneurship. The case study also presents several other entrepreneurial education projects that aim to promote self employment and training, such as the Tunisian Bank of Solidarity's loan scheme for SMEs or entrepreneurship education and business administration programmes such as INJAZ Al-Arab or ILO's Know About Business (KAB) programme.

The *third case study on Oman* analyses how entrepreneurship education (EPE) is integrated within the Omani educational system. Between 2003 and 2006, a major review of the education system in Oman was undertaken carried out. Upon the review, a "vision for education" was developed that put a special emphasis on teaching skills that increase students' employability. Various approaches were outlined to prepare students for the labour market, including through teaching entrepreneurial skills such as decision making, problem-oriented thinking and discipline. The current post-basic

school curriculum in Oman reflects this vision, for example through innovative teaching and learning approaches in subjects such as Business English, Information Technology (IT) for Business, Life Skills, and Applied Mathematics. Especially the later two subjects focus on skills for future entrepreneurs and provide skills in areas such as time management and business calculation. Other topics covered in the new curriculum include transactions in financial markets, securities and stocks, and economic theories and practices. Several pilot projects and private-sector programmes have been implemented to promote entrepreneurship and to provide entrepreneurship education. They include business simulation classes at Nizwa College of Technology and the SANAD programme, which promotes the launch of youth business ventures through the provision of loans and expertise to recent graduates.

The *fourth case study explores Egyptian* measures to anchoring entrepreneurship education (EPE) in its national education system, including past and present difficulties. After decades of policies that favored a centrally-planned economy, which impacted negatively on the entrepreneurial spirit of the population, Egypt has been liberalizing its economy and has been adapting it to the constantly changing developments in society, technology and the labour market over the past 30 years. From the beginning, establishing and developing small and medium enterprises (SMEs) played a major role in this reform process. Entrepreneurship was promoted to mitigate high youth unemployment rates. This campaign attracted a high number of young people, but most of them lacked basic entrepreneurial training, and their business efforts mostly failed. In 2004, the Egyptian government passed a new law on small enterprise promotion, which contains a strong EPE component. Since then, many diverse EPE training centres and programmes have been established. As a next step, these programmes, being national or donor-supported, they should be better coordinated to increase effectiveness.

The regional synthesis report adopted a broad concept of EPE that includes economic, social and cultural dimensions, with special emphasis on both the higher mental skills of the individual and the preparation for the world of work. The scope of EPE comprises all aspects and dimensions of the education system, including the relevant inputs, processes and practices, and the possible educational disciplines (courses) in formal and non-formal education.

EPE (in general), can be influenced by two groups of factors within the education system: personal and external factors. Personal factors include professional competences, communication skills, and higher mental skills. External factors include social, cultural, economic and political conditions that prevail in society, with direct effects on EPE or the education system.

Policy, legislation and governance systems can be important venues to support EPE in the education systems though clear references to EPE competences and skills that need to permeate innovations in teaching and learning. Governance at the central, regional and school levels can play a vital role in anchoring EPE in the education system. Nevertheless, developing specific strategies for this purpose is of great help.

Basic education can be considered the best vehicle to incorporate EPE, especially because it is common, compulsory, non-specialized and covers a wide spectrum of disciplines. Secondary education, on the other hand, lends itself to cater more for individual differences and to incorporate basic theories of EPE with higher standards of out-of-school activities. Apprenticeship systems in secondary education have the added advantage of incorporating employability and self-employment skills. Needless to say, at all levels of education, assessment tools that target the learner and that accompany curricula and textbooks can play an important role in assimilating EPE concepts and competences in the education systems. In addition, the teaching and learning methodologies utilized by the teacher are important for the incorporation of EPE skills in education systems.

The development of practical skills and implementation of applied activities related to EPE require the availability of adequate funding sources, especially at the school level. Reward systems and special funds are good examples of such sources if they are sustainable and subject to proper evaluation.

An important dimension of successful EPE experiences is the community involvement in such programmes through twinning between schools and enterprises, sponsorship of activities, the provision of services for schools by external stakeholders, and exchange of enterprise projects between teachers and students. Another important dimension includes determining the feasibility of a regional approach to EPE, as well as collaboration between national and international efforts

and experiences. Several experiences were shared in the regional synthesis report on the Arab countries (Bahrain, Lebanon, Morocco, Palestinian Authority, Sudan, and Syria) as part of cooperation between UNESCO Field Offices and UNEVOC Centres. The areas of cooperation on EPE at the regional and international levels included teaching and learning materials developed by UNESCO, ILO, and ALO/ACHRD during the past five years. Most of such materials are available on CD-ROMs and the websites of these organizations. Other initiatives related to youth employment and skills are implemented by the British Council and Injaz Al-Arab (NGO).

Several gender issues were identified as part of promoting EPE in the education systems in the region, which include involving women policy makers in EPE programmes and cooperating with business women association in the implementation EPE teaching and learning experiences. This can have positive impact on the role of women in socio-economic development and the labour market in general.

The conclusions, suggestions, and recommendation on adopting EPE in the educational systems of the Arab countries included the importance of developing national and regional strategies and plans of action on EPE. The strategies/plans of action will focus on the following priority areas:

- Policy and coordination;
- Curriculum development;
- Teacher education and training;
- Equipment, laboratories, and infrastructure; and
- Networking and connectivity.

1. Case Study on Jordan, Dr. Munther Masri

1.1 Introduction.....	11
1.2 The Education System: A Brief Overview	12
1.3 Policy, Legislation and Governance	14
1.4 Basic Education: Structure and Content	17
1.5 Secondary Education: Structure and Content	19
1.6 Curriculum and Assessment Tools	20
1.7 Teacher Training.....	22
1.8 Financing.....	23
1.9 Private Sector and NGO's Initiatives.....	26
1.10 Regional Initiative.....	30
1.11 Conclusions and Recommendations	31

1.1 Introduction

In a joint UNESCO/ILO 2006 publication "Towards an Entrepreneurial Culture for the Twenty-first Century", entrepreneurship education is defined as follows: "Entrepreneurship education (EPE) is conceived in a broad sense as a pedagogic approach to fostering self-esteem and self-confidence by stimulating and nurturing the talents and creativity of the individual, while building the relevant skills and values that will assist learners in expanding their perspectives on schooling and opportunities beyond. Methodologies are based on the use of personal, behavioral, motivational, attitudinal and career planning activities".

Consequently the scope of EPE and the venues that permeate and are permeated by EPE are varied and can comprise all the relevant inputs, processes and implementation practices in education, including - with varying degrees and approaches - all educational disciplines and cycles in formal and non-formal systems. At the system level, it includes inputs such as governance, legislation, financing, curricula, teacher education, and roles of different stakeholders in the public and private sectors. At the school level, on the other hand it includes such inputs as teaching-learning methodologies, testing and certification, out-of-class and out-of-school activities, school administration, and staff development.

This paper is a case study about entrepreneurship education in Jordan. It deals with a number of relevant dimensions and inputs, including:

- Policy, legislation and governance at the national level;
- Basic education: structure and content;
- Secondary education: structure and content;
 - Secondary academic education;
 - Secondary vocational education;
- Curriculum and assessment tools;
- Teacher education and training;
- Financing: Funding entrepreneurial projects;
- Private Sector and NGO's Initiatives;
- Regional initiatives.

Each one of these dimensions will be explored for the extent to which EPE is explicitly or implicitly catered for.

The methodology adopted for the collection and analysis of the relevant information in this study included the following:

- Desk review of relevant, official reference documents and data, including laws, by-laws, regulations, funds, etc.
- Information on special programmes that relate or can be seen to support EPE in Jordan, including awards and initiatives. Such programmes are usually implemented by NGOs or the private sector.
- Review of assessment studies that were implemented by researchers to evaluate the different aspects of the education system and that included references to the status of some aspects of EPE.
- Discussions with senior officials of the relevant agencies and stakeholders.
- Discussions through two workshops (August and December 2009) with the research and coordination teams for the project as shown in the Annex.

1.2 The Education System: A Brief Overview

Education is one of the major service sectors in Jordan and accounts for more than 5% of the GDP. It is characterized by a prominent role and involvement of the private sector. The literacy rate exceeds 93% with relatively high participation rates of males and females in the various cycles. The following are the major characteristics:

- Preschool education in kindergartens lasts for two years and serves children of the age group 4-6 years. It is mostly run by the private sector and NGOs, with only 7.4% of children in government kindergartens. Although preschool education is not compulsory, it is considered one of the formal educational cycles under the general supervision and regulation of the Ministry of Education. About 40% of children of the age group 4-6 years join kindergartens, with nearly equal distribution between males and females. The student-class unit ratio in kindergartens is about 22:1, while the student-teacher ratio is 21:1.
- Basic education lasts for ten years and serves the age group 6-16 years. It is compulsory and free in government schools. It is mainly run by the Ministry of Education, with 72% of children in government schools, 18% in private schools, and 10% in UNRWA (United Nations Relief and Welfare Agency for Palestinian

Refugees) schools. Of the age group 6-16 years, more than 93% of both, males and females, join basic education for. The student-class unit ratio in basic education is about 28:1, while the student-teacher ratio is 19:1.

- Secondary education consists of two years, and serves students of the age group 16-18 years. It is not compulsory, but is nevertheless free in government schools. Students who successfully complete basic education can either join the applied secondary education path, which is run by a government agency, the Vocational Training Corporation (VTC), and which consists of vocational options where the applied (practical) component is implemented on the job in enterprises according to the apprenticeship system in cooperation with employers, or they can join the comprehensive secondary education path which comprises two streams: the general education stream which consists mainly of literary and scientific options, and the vocational education stream which consists of industrial, agricultural, home-economics and hospitality options. Of the age group 16-18 years, 82% join secondary education (78% for males and 86% for females). Less than 20% of all secondary education students join the various offerings of vocational education including applied secondary education. Almost 90% of general education options and all vocational education options are offered by government schools and training centres. The student-class unit ratio in secondary education is about 24:1, while the student-teacher ratio is 12:1.
- **Higher education** consists of two major paths: university education and intermediate university education that lasts for 2-3 years and is implemented by community colleges. To join any of the two paths, students have to pass a national examination, the General Secondary Education Certificate Examination. About one third of students in higher education can be found in private universities and community colleges.
- **Governance Structure**
 - Basic and Secondary EducationFor educational purposes, Jordan is divided into 36 regions, each served by a local Directorate of Education. Nevertheless, the Jordanian education system is to a great extent considered a centralized system. Basic functions such as curricula, textbooks, recruitment of teachers, legislative tools and regulations, financing, etc. is in the hands of the central authority, the MOE. A Board of Education, whose membership is drawn from the various stakeholders in the

public and private sectors, has the authority of approving curricula and textbooks. It also offers advice to the Ministry on policies, strategies and developmental needs.

- Higher Education

The Ministry of Higher Education and Scientific Research (MOHESR) is the agency responsible for higher education that comprises 27 universities and 50 community colleges, many of which are private institutions. A Higher Education Council and an Accreditation and Quality Control Organization with public and private representation provide the umbrella for policies, quality and regulatory needs of the sector.

- Technical and Vocational Education and Training (TVET)

Although technical and vocational education is organized and implemented by three major government agencies (MOE, MOHESR and Vocational Training Corporation), the Ministry of Labour is responsible for the coordination, policy making and overall supervision of TVET, aided by a council, the Employment-Technical and Vocational Education and Training Council, with strong representation from employers.

- **Teachers**

According to the Educational Law No. 3, 1994, a first university degree in addition to one year of pedagogical education is the minimum requirement to join the teaching profession. Although about 80% of teachers fulfill the first requirement of holding a first university degree according to their specialization, the majority have so far not acquired the pedagogical requirement.

1.3 Policy, Legislation and Governance

The Jordanian Education Act No. 3 (1994) has special features that are not usually incorporated in similar legislative tools, as it is not restricted to structures, mandates, roles, procedures, etc. but also deals with such themes that are related to the philosophy and general objectives of education. As such, it has numerous references to skills, competences and attitudes that need to permeate the education system, and that enhance the entrepreneurial spirit, mindsets, and abilities of the learner. The following are brief analytical outlines of the articles that are judged to be related to EPE in the said law.

- Chapter Two of the Education Act deals with the philosophy and objectives of education. The following is a summary of references to skills and attitudes that are of relevance to EPE in this chapter.
 - Article 3 summarizes the sources where the philosophy of education stems out of, highlights such themes as the need for interaction with human and global developments, and refers to the social and political participation within the framework of a democratic system as a right and duty of the individual.
 - Article 4 defines the objectives of education that are exemplified, among other things, in shaping a citizen who is endowed with human virtues and ideals, and developing in the various aspects of his personality: physically, mentally, spiritually, emotionally and socially, so that the learner shall be able to acquire a wide spectrum of factual knowledge, applied skills and positive attitudes, many of which enhance directly or indirectly his entrepreneurial abilities and characteristics. As shown in the details of this article, such spectrum includes comprehension of facts, concepts and relations; openness to the values and positive attitudes of human cultures; scientific thinking, interaction with technological developments and sources of information; critical thinking; acquiring vocational skills etc.
 - Article 5 deals with the principles of educational policy. Such principles, as stated include, among other things, the provision of adequate opportunities for life-long education, the enhancement of the scientific approach in the education system, and emphasizing the concept of the comprehensive experience that includes vocational and technological experiences.
 - Article 6 specifies the functions of the Ministry of Education. Such functions include imparting many of the components that are relevant to entrepreneurship education. These incorporate encouraging all aspects of students' activities in the educational institutions in all fields: sports, scouting, cultural, social and productive. Such relevant functions also include establishment of adult, continuing and non-formal education, as well as strengthening relations between the educational institutions and the local communities.

- Chapter Three of the education act deals with the different educational cycles and their objectives. Many aspects of EPE can be found to have been incorporated in the different cycles including kindergartens as shown below:
 - Article 7b gives authority to the Minister of Education to allow excellent and talented students to shorten the number of years spent at school by two years in basic education and by half a year in secondary education. It is apparent that this is recognition of some aspects of the entrepreneurial qualities of talented students who are thus rewarded accordingly.
 - Article 8 deals with the kindergarten cycle. It states that preschool education aims at providing a suitable climate that provides the child with a balanced education related to all aspects of his personality: physical, mental, spiritual and social, that will help him develop good health practices, improve social relations, and enhance positive attitudes and love for school life.
 - Articles 9 and 11, on the other hand, deal with the basic and secondary education cycles, where it is stated that these cycles aim at preparing the citizen in all aspects of his personality: physical, mental, spiritual, emotional and social, to enable him to acquire different competences related to applied skills, positive attitudes, and useful knowledge. Many of the competences spelled out in these articles are directly or indirectly related to EPE. These include scientific thinking, the absorption and employment of facts and technology in life, care for the environment, developing a taste for arts and aesthetics, performing handicraft skills, diligence, perseverance, self independence, self appreciation, self development, openness and contribution to world civilization, problem solving, and experimentation. www.lob.gov.jo

In addition to legislation, EPE can further be supported by the management and administrative structures, practices and approaches at the different levels including the central (i.e. the Ministry level), the regional (i.e. the field directorates) and school levels. The school administration in particular can play a major role in this respect. This requires that special importance be given to the empowerment of the school and to take initiatives and undertake innovations that help facilitate the integration of EPE in the teaching-learning process. Such a target and approach has for many years been supported by the MOE and considered as a major component of all educational reform plans. Nevertheless, the progress in this respect has so far been modest. One of

the serious attempts undertaken by the MOE in this respect is a pilot project that was given the title of "Discovery School Experiment".

This pilot project, which covered one hundred schools as a first stage, was initiated five years ago in the government school system with the objective of integrating ICT in the teaching-learning process through a mixture of e-learning and face-to-face traditional learning with full support of new administrative school styles. Such type of learning came to be called "blended" or "hybrid" learning. Its major objective from the learner's perspective includes the development of self learning as well as the utilization of different sources of knowledge available worldwide.

From the teacher's perspective, on the other hand, the objective is to transform the role of the teacher to be shifted towards being more as a facilitator and evaluator, and less as a source of information and instruction. Such an objective helps help to enhance learners' imitative, innovation and entrepreneurship skills and hence to support EPE.

An evaluation study that was implemented three years after the initiation of the pilot programme showed that the experiment, while realizing some of its objectives in the field of integrating ICT in education practices was not as successful as expected. The instructional model utilized in computerized lessons was not significantly different from that used in non-computerized lessons. Such instructional model, in both types of lessons, was more of the Transmissive type with a focus on presenting and illustrating information, posing questions and evaluating students' responses. In addition, the learning environment in both cases was teacher dominated, with little opportunity for students to initiate and innovate.

It was felt that more time is needed for the full integration of e-learning in the discovery schools to fulfill all the relevant objectives, not the least EPE.

1.4 Basic Education: Structure and Content

One of the important aspects of the education system that has the potential to incorporate a strong component of EPE is the inclusion of a wide spectrum of useful knowledge, life skills and attitudes in support of the concept of wide-based and comprehensive experiences. Basic compulsory education is usually the best vehicle for such an approach because it is general, non-specialized, universal and common.

From the quantitative and structural point of view, the study plan for basic compulsory education in Jordan that spans grades 1-10 and age groups 6-16, incorporates most, if not all the needed groups of disciplines that pave the way to avail the necessary life skills to the learners. Such groups of disciplines include the following:

- Humanities, including Arabic language, English language and French in some schools.
- Social sciences, including history, geography, and national education;
- Pure and natural Sciences, including mathematics, physics, chemistry, biology and geology;
- Information and communication technology (ICT);
- Pre-vocational education, including mainly applied basic skills in home-economics, agriculture, industry, etc;
- Arts education;
- Music education; and
- Physical education.

As expected, the traditional academic disciplines that include humanities, social sciences, pure and natural science are well taken care of in the study plan, testing and evaluation system. Some other disciplines that have a strong component of applied skills, including ICT, arts education and physical education, are also being catered for fairly well in the study plan and evaluation system. The rest of the study plan disciplines, i.e. pre-vocational education and music education, do not seem to have been fully assimilated in all schools, as most schools do not have the full facilities and necessary inputs for such assimilation.

From the qualitative point of view, much still needs to be done, even in the case of the traditional academic disciplines. The relevant qualitative aspects include such life skills and mindsets as innovation, entrepreneurship, initiative, problem solving, critical thinking, etc. The weaknesses of the qualitative aspects will be clear later in this study. Needless to say, the various skills, attitudes and competences that are taken care of by EPE can, with varying degrees and emphasis, permeate the different disciplines according to their nature. The humanities and social sciences can emphasize the skills of analysis and open-mindedness. ICT, on the other hand, can

highlight the skills of self learning and innovation, while prevocational education can incorporate the skills of preparing for the world of work.

1.5 Secondary Education: Structure and Content

Unlike basic education, secondary education in Jordan, which spans grades 11-12 and caters for the age groups 16-18, is streamed and non-compulsory, although the participation rate exceeds 80% of the relevant age groups.

Being streamed, with several academic and vocational paths, secondary vocational education potentially lends itself to cater for individual differences which are one of the basic foundations of EPE. Nevertheless, the implementation aspects do not seem to take full advantage of such diversification, especially because a good proportion of students find themselves placed in streams which are not their choice or priority, and without effective guidance and counseling services. The following is a brief description of the two major streams of secondary educations:

1.5.1 Secondary Academic Education

The academic stream of secondary education incorporates several paths or sub-streams, mainly the literary and scientific streams. Being specialized, EPE can best be catered for by permeating the different disciplines and teaching methodologies with the relevant skills, experiences and mindsets as referred to above in the case of basic education. As will be seen later in this study, the relevant assessment showed that, despite some positive signs in this respect, much is needed to assimilate EPE in secondary education in general, and in secondary academic education in particular.

1.5.2 Secondary Vocational Education

The vocational stream of secondary education consists of several specialized paths, including the industrial, agricultural, home economics and hospitality paths. Vocational education here operates according to two systems: the first is the school system, which is run by the MOE and where most if not all the practical components are implemented in school workshops, and the second is the applied secondary education (dual or cooperative) or apprenticeship system which is run by an autonomous agency, the Vocational Training Corporation. Here, most of the practical

component is implemented at the workplace, i.e. industrial firm, hotel, farm, etc. according to the specialization. This second cooperative system lends itself more to incorporate some of the requirements of EPE due to the learners being exposed both to the school and the workplace environment. Another supporting element in this respect is that learners are provided with the necessary information and skills related to self employment and the establishment of micro and small enterprises which need entrepreneurial skills and attitudes. An evaluation study is needed to assess the effectiveness of such aspects of applied secondary education (apprenticeship). The school system of vocational education can thus assimilate more EPE skills by establishing strong links with employers and enterprises and by incorporating self employment and entrepreneurial skills.

1.6 Curriculum and Assessment Tools

In 2003, the Ministry of Education (MOE) in Jordan started a comprehensive educational development plan, the "Educational Reform for the Knowledge Economy (ERfKE)" project. The design and implementation of new, high quality curricula and assessment tools was a major component of the reform plan. After endorsing the new "General Framework for Curriculum and Assessment", the Board of Education approved new curricula for all school subjects in basic and secondary education in 2004.

The officially declared objectives of the new curricula included such characteristics as being outcome-based, student-centered, results-based and multi-media-based. Official documents referred to the need for the new curricula, textbooks and assessment tools to enhance the learners' competences in such fields as critical thinking, problem solving, entrepreneurship, self learning, etc. It is clear those characteristics and competences, if successfully dealt with and implemented, will greatly support entrepreneurship education (EPE) in the education system. During the period 2005-2007, new textbooks and teachers' guides were produced for all grades (1-12), and teachers were trained to effectively utilize them. In addition, the MOE developed and introduced an electronic form of the content of some school subjects, especially mathematics, to motivate self learning and e-learning in schools.

To assess how the curriculum, textbooks, assessment tools and teaching methodologies can support EPE in practice, one has to find answers to the following questions:

- Is the nature and quality of the learning activities and tasks that are included in the textbooks motivating, practice-oriented and helping learners to be engaged in higher order thinking?
- Do assessment tools, including tests and examinations, help learners to develop their analytical, critical-thinking, problem solving and other soft skills? And do they give them the opportunity for self assessment and reflection on their learning?
- Do textbooks and teachers guides provide for individual differences? And how are such differences catered for?
- How are the e-content and the utilization of ICT resources and tools in general, helping to enrich and consolidate the different higher mental skills of the learners, including self learning, self assessment, initiative and entrepreneurship?
- How effective are the teaching methodologies that are utilized by teachers in supporting EPE through such means as project work, use of different sources of knowledge, and teamwork taking care of individual differences?

These and other relevant questions were the subject of a comprehensive evaluation study that was conducted in 2008 to assess the extent to which the new curricula, textbooks, teachers' guides and teaching methodologies fulfilled the relevant declared objectives of the reform, many of which were in line with the objectives and characteristics of EPE.

As expected, the results of the evaluation study showed some strengths and weaknesses in applications. The results that are related in particular to EPE can be summarized as follows:

- The knowledge and information component in the teaching-learning process is still predominant at the expense of the other components related to skills and attitudes which showed little progress with noticeable variations among schools and teachers;
- The diversification of the sources of knowledge was minimal. The textbook and the teacher were still the major input for students despite the availability

of other sources in almost all schools, ranging from school libraries to internet connectivity. Some breakthroughs, in these connections were observed in some schools;

- Although some improvement was observed in the involvement and initiative of students in the teaching-learning process, such improvement was modest and did not seem to affect the whole educational school environment;
- The activities and tasks contained in the textbooks were generally of a good standard, and many were oriented to support the students' initiative, self learning and critical thinking. Nevertheless, the targeted impact is still modest because the employment of such activities and tasks was far from adequate;
- Teachers' guides were in general comprehensive and of good standard and could support teachers in fulfilling the reform objectives, including the elements related to EPE, but it seems that some time is needed to make a real difference and realize the required impact.

1.7 Teacher Training

The teacher, through the appropriate classroom teaching methodologies and evaluation techniques, can be the most influential source of EPE. Almost all the skills that enhance the learner's innovation and entrepreneurship skills and attitudes can be targeted and developed through the utilization of adequate teaching methodologies. Such skills include innovation, self learning, problem solving, self evaluation, critical thinking, utilization of ICT, etc.

Pre-service preparation, as well as in-service training of teachers can be an effective vehicle to equip teachers with the necessary knowledge, skills and attitudes to be able to impart and/or enhance the learners' entrepreneurship skills, and hence be active players in EPE.

In Jordan, an evaluation study that was carried out in 2007 to assess the effectiveness of in-service teacher training programmes showed the following interesting results about teachers:

- 33% encourage students to debate and dialogue;
- 60% link learning to life situations;

- 65% take into account individual differences;
- 53% utilize reasoning questions that develop students' analytical thinking;
- 70% use the discussion method;
- 53% use the working group method; and
- A small percentage utilizes methods such as project-based learning, analysis and criticism of study topics, self learning, and learning through workshops. More effort is generally needed in the in-service training programmes to help teachers enhance the innovative and entrepreneurial skills and attitudes of their students.

It is clear that most of the strengths, weaknesses and needs that were referred to in the section “curriculum and assessment tools” above are expected to be reflected in the performance of teachers, and hence in their training needs. This applies in particular to such issues (that were stated in the questions that need answers above) as assessment tools, teachers guides and teaching methodologies.

1.8 Financing

Financing policies and funding priorities can be a potent factor in supporting EPE in the education system, whether directly or indirectly. The financial implications of educational legislation can be judged in general by the provisions in educational laws. In Jordan, the Education Act of 1994 clearly paves the way for funding plans, activities and systems that support EPE in the education system. Actual applications through tools such as curriculum development, teacher training, governance, etc. showed that the achievements in this respect were modest as judged by the relevant evaluation studies. More direct means were therefore adopted for this purpose through special funds directed to support innovative and entrepreneurial activities. The following are some of these funds:

1.8.1 Educational Innovation Fund

This fund was established by the MOE in 2004 with the following objectives:

- Improving the educational environment through the enhancement of innovative initiatives and linkages between education and life;
- Upgrading the efficiency of the educational system through addressing individual differences among learners;

- Encouraging and universalizing innovations and initiative at the level of the basic education unit, the school;
- Encouraging schools to initiate continuous and sustainable development;
- Providing extra sources of income to schools through some income-generating activities;
- Enhancing teamwork through involving students and teachers in participatory projects and activities; and
- Creating healthy competition among schools to launch innovative and creative initiatives.

Entrepreneurship skills and attitudes are further enhanced through the criteria adopted for assessing the projects submitted by schools. Such criteria included innovation, quality of design, sustainability, usefulness to the community and to the learner, and cost and project economics.

As shown in the relevant documents of the MOE, the Education Innovation Fund provides grants to finance projects submitted by schools on a competitive basis in four major fields, all of which can be utilized to enhance the entrepreneurial spirit, environment and quality of activities at the school level. These are:

- School governance, including planning, administration, decision making, and capacity building;
- Curriculum development, including the relevant out-of-class and out-of-school activities;
- The utilization of e-learning and ICT tools to support the learning process; and
- Sustainable professional and personal development of school staff.

To give an idea about the extent of school involvement in the Innovation Fund, more than a thousand schools competed and submitted projects in 2008, of which 48 schools succeeded in acquiring grants that amounted to a total of about US\$ 150,000 for implementation of their projects. According to the governing rules, single grants of up to 10,000 Jordan Dinars (US \$ 15,000) can be obtained for projects submitted by a single school or a group of schools.

Examples of successful projects submitted by schools included those that had an impact on the environment, teaching methodologies, e-learning, professional

development, community service, guidance and counseling, student clubs, astronomical stations, water conservation, agricultural products, art, drama, services to slow learners, services to the talented, materials' recycling, animal husbandry, etc.

In general, the projects that were assessed dealt with:

- Improving teaching and learning processes within the classroom environment;
- Enhancing R&D skills;
- Improving problem solving skills;
- Linking learning to life activities;
- Developing communication skills;
- Utilizing ICT in learning;
- Encouraging teachers and students to be innovative; and
- Enhancing good administrative practices.

It is clear that almost all of these areas contribute in one way or another to EPE, although on a scale limited to the schools involved.

One evaluation study that was implemented to assess the extent to which the first round of projects that were financed by the Innovation Fund contributed to the various objectives of the Fund showed that, in general, successful projects provided such contribution. Nevertheless it was too early to assess the sustainability and long term impact on the concerned schools, as well as the education system as a whole.

1.8.2 E-TVET Fund

This fund was established according to the provision of the "E-TVET Fund By-Law, No. 95 for the year 2002". The main financial source for this fund is a 1% tax on the net profit of private sector enterprises. This tax was abolished recently and replaced by a fee that has to be paid by employers who recruit non-Jordanian employees.

Article three of this by-law defines the objectives of the fund as supporting TVET activities, developing the various training operations in private and public establishments, and enhancing the participation of these two sectors in the educational and training activities and provisions.

Article nine of the by-law, on the other hand, defines the main fields of expenditure for the fund. Item (b) and (d) of these fields can in practice be utilized to support EPE in the TVET sector. These are:

- Development of training programmes as well as support of retraining or supplementary training in private and public establishments; and
- Contribution to expenditures directed towards campaigns for occupational guidance with the aim of raising awareness among citizens.

So far, the fund has been extensively utilized to support the implementation of TVET programmes in the various sectors with the objective of preparing skilled workers that are equipped with the necessary skills, knowledge and attitudes for their work. No specific inclusion or reference to EPE skills can be found.

Nevertheless, and apart from the potential to incorporate EPE skills, the fact that almost all training programme that are supported by the fund are implemented on the basis of public private partnership opens the door for the trainees to be exposed to the world of work and associated skills.

1.9 Private Sector and NGO's Initiatives

Efforts and initiatives to enhance EPE in education systems are usually expected to be supported by Ministries of education. The private sectors as well as NGOs' are nevertheless expected to play an important and effective role in this respect. Such a role can either be fulfilled by undertaking educational activities, as major players in the education field, both in formal and non-formal education, or by providing services and facilities to schools and extending a helping hand to cater for some of the special needs of schools. As expected, some of the efforts and initiatives undertaken by the private sector and NGOs' help to support innovations and entrepreneurship, especially at the school level, whether through the school administration, the teaching profession, the student body, or any combination of these.

The "Award" system is a well known tool in this respect. Awards provide incentives to fulfill the aims that are set for them. In the field of education in Jordan, half a dozen awards exist that, with varying approaches and means, help to enhance innovation and

entrepreneurship in the education system. The following are some of the most relevant awards.

1.9.1 Queen Rania Al-Abdullah Award for Distinguished Teachers

This annual award, which is managed and operated by an NGO (Association of Queen Rania Al-Abdullah Award for Excellence in Education), was initiated in 2006 with the objective of enhancing the culture of innovation and entrepreneurship through spreading awareness about distinguished performance concepts and providing incentives for distinguished teachers. The award model is based on the pillars of transparency, fairness, targeting students, operations and outcomes. Innovation and entrepreneurship are distinct elements of the criteria for the award, in addition to other elements that include teaching effectiveness, sustainable self development, management of resources, participation of parents and the local community, performance, etc. The size of participation in the award is quite high. In 2009, for example, 1298 teachers or 2.5% of the teacher population participated. It is clear that this award supports EPE through the enhancement of teachers' abilities and distinction and is expected to reflect on his or her performance and teaching methodologies.

www.queenraniaaward.org

1.9.2 Queen Rania Al-Abdullah Award for Distinguished School Principals

This annual award, which is almost a replica in its objectives, pillars and criteria of the award for distinguished teachers, was initiated in 2009, when 269 school principals (about 10% of the target population) participated.

As in the case of the teachers award, this award for distinguished school principals supports EPE in the education system through the enhancement of school principals' abilities and distinction, and thus is expected to reflect on their administrative performance, which feeds into the overall school environment.

www.queenraniaaward.org

1.9.3 El-Hassan Youth Award

The El-Hassan Youth Award Scheme started in Jordan in 1984 to provide opportunities for Jordanian youth between the ages of 14-25 years to enroll in out-of-school, self-challenging educational and non-educational programmes in services,

skills, expeditions, and physical recreation to help achieve balanced personality development.

The scheme incorporates values related to personal and social development. The aims and objectives include participation, team spirit, active citizenship, self reliance, perseverance, creativity, social responsibility, adventure spirit, life skills, etc. It is clear that many of these aims and objectives are closely related to innovation and entrepreneurship.

(www.hyaward.org.jo)

1.9.4 Madrasati (My School) Initiative

This initiative was launched in 2006 by Queen Rania Al-Abdullah, and is managed and operated by an NGO, the Jordan River Foundation. The major objective of the initiative is to establish close links and channels between the individual school on the one hand and a partner in the community at large on the other. Such a partner can be an NGO, an industrial firm, a bank, etc. The partner provides two kinds of services to the chosen school. The first concerns the upgrading of the school's material environment through the implementation of major maintenance works, new facilities, face-lifting, etc. The second is concerned with a group of continuous activities and contacts between the school and the community. Such activities help to expose the teachers and learners to the world of work and to out-of-school life in general, thus helping to widen their visions and expand their life experiences.

The initiative targeted five hundred most needy schools. Already, two hundred schools have either fully benefited from the initiative or are in the implementation process. An evaluation study is planned to assess the impact of the initiative on the schools, including the administration, the teaching-learning process and the learners. Needless to say, some aspects of EPE will be subject to exploration and evaluation.

(www.madrasati.jo)

1.9.5 Injaz

"Injaz" is an NGO project which was launched in Jordan in 1999 with a mission to inspire and prepare young Jordanians to become productive members of their society and succeed in a global economy.

Injaz brings various capacity-building courses from the community to classrooms around the country. Such courses are directed to enhance learners' leadership, business, financial, entrepreneurial, communication and soft skills.

Injaz places special emphasis on volunteer services and on creating and sustaining partners that include donors, the private sector, non-profit organisations, educational institutions, line Ministries and other stakeholders at the national, regional and international levels.

The aim of such partnerships is to extend the programme's reach, ensure strong impact, develop new initiatives, and encourage collaboration and efforts among all stakeholders, particularly the private sector so that it can play a greater role in creating employment opportunities. This is especially important when considering that 70% of youth who have been out of school for one year are still unemployed. Apart from slow economic growth, one of the important reasons for the high unemployment rate among youth is the weak relevance between the outputs of the education system and labour market needs and requirements. In addition, young graduates would not have been introduced to general entrepreneurial life skills including workplace and entrepreneurial skills that would facilitate their integration in the labour market.

The courses provided by Injaz to any group of students consist of 8-10 meetings/workshops over a couple of months. The following are the titles of such courses, which reveal many of the elements of entrepreneurship education:

- My place and role in the community;
- The principles of economics;
- Management of my business;
- Tourism skills;
- Economics for success;
- How to be a leader;
- Skills for success; and
- The establishment of an enterprise.

(www.injaz.org.jo)

1.10 Regional Initiative

This initiative has been undertaken by one of the technical arms of the Arab Labour Organization (ALO), namely the Arab Centre for Human Resources Development (ACHRD), which is located in Tripoli, Libya (www.achrd.com). The initiative targeted the Arab countries with the overall objective of supporting the national economy and enhancing social security through the reduction of unemployment and poverty by enhancing and encouraging the culture of entrepreneurship, and by improving the performance of small and medium enterprises. The programme of the initiative had two components which can be seen to be closely related to EPE. These are:

- The training of entrepreneurs; and
- Capacity building for those responsible for planning and operation in the field of small and medium enterprises (SME's).

The training of entrepreneurs' component involved the preparation of training programmes and manuals, as well as building a proactive website to enhance e-learning. The training programmes consisted of four parts:

- Knowing the world of work and small enterprises;
- Establishing a small enterprise;
- Managing a small enterprise; and
- Developing a small enterprise.

As for the capacity-building component, the ACHRD developed twenty training modules to enhance the abilities of those responsible for planning and operation of small and medium enterprises (SMEs).

1.11 Conclusions and Recommendations

The following are the main conclusions and recommendations that can be derived from the case study on entrepreneurship education in Jordan:

- **Education and Training System**

Although many elements, aspects and dimensions of EPE are catered for as part of the education system, or as efforts and inputs from outside the system, EPE as a comprehensive and multi-dimensional system that can potentially permeate all components, inputs and processes of the education system is not adequately catered for in the Jordanian education system. It is therefore recommended that the Ministries of Education, Higher Education and Scientific Research, and Labour adopt EPE as a comprehensive and all-embracing concept and reflect it in the various inputs and processes of the education and training system.

- **Curriculum, Textbooks and Assessment Tools**

This case study and the relevant evaluation studies highlighted some details of the strengths, weaknesses and needs of the education system concerning curriculum, textbooks and assessment tools. It is recommended that the results of the evaluation studies be taken into consideration and reflected, where appropriate, as part of the need to adopt EPE as a comprehensive and all-embracing concept in the education system as referred to above.

- **Teachers**

In order to fulfill its objectives through the teaching profession, EPE has to be incorporated both in the pre-service education of teachers, as well as in their in-service training programmes. Both these aspects of teachers' qualifications seem, at present, not to be adequately catered for in a comprehensive and systematic manner. The one year pedagogical requirement for the teaching profession can be utilized for his purpose.

- **National Stakeholders Role**

National stakeholders from outside the education system, especially NGOs, seem to be playing a positive role in supporting some elements and dimensions of EPE

in the Jordanian education system. It is recommended to expand and further encourage such a role, and to make it focus more on the objectives of EPE as a comprehensive concept.

- **Regional Approach**

Regional organizations can undertake a useful role in supporting EPE in the Arab States through such activities as the development of educational material, capacity building, and learning activities (conferences, workshops, etc). Such organizations include the Arab Labour Organization, the Arab Centre for Human Resources Development, the Arab League Educational, Cultural and Scientific Organization, the Union of Arab Universities, etc.

- **International Approach**

Several EPE initiatives exist on the international level as those undertaken by UNESCO and ILO. It is recommended to make full use of such initiatives on the national and regional levels, and to make use of any relevant experiences.

2. Case Study on Tunisia, Dr. Mohamed Jemni

2.1 Introduction.....	34
2.2 Context.....	37
2.3 Overview of the Education and Training System in Tunisia.....	38
2.4 Promotion EPE in the Education and Training System.....	42
2.5 Conclusions and Recommendations	51

2.1 Introduction

The profound changes in the fields of knowledge, information and communication technology (ICT) and employment have strongly challenged the missions, functions, methods and organization of schools.

This raised a crucial question: What kind of school do we need for the knowledge society?

The answers to this question lead to the emergence of a new educational paradigm. To respond adequately to the new needs of societies and individuals, the mission of schools can no longer be limited to the transmission of knowledge.

In this context, A. Cadiz [3] defined the new objectives of the school as follows:

"Given the speed of renewal of knowledge and complexity of problems, the first objective is to learn to learn, and learn to adapt ... It is not so much to give to the child, the adolescent or the young some knowledge that will be obsolete a few years after his entry into professional life, than to teach him behaviors, attitudes (spirit of curiosity and entrepreneurship, enthusiasm for risk and responsibility) ... as it is to provide the society not followers but entrepreneurs."

New concepts are appearing in the area of education and are beginning to be debated. The most controversial are the concepts of competency, cost, quality, employability and entrepreneurship.

The debate brings face to face those who believe that schools cannot turn away from the problem of the "professional" future of the youth that they are responsible for and those who hold the traditional view that the primary mission of schools is to educate and communicate knowledge.

The new ideas continue, however, to win ground and many countries are orienting their educational systems toward building skills at school level.

Among the new skills to be built are those called "life skills" which include initiative, decision making and entrepreneurship.

In Tunisia these issues have been raised since the mid-1990s. Three important events have taken place since then:

- Testing of the competence approach in Tunisian schools from 1995 to 1999 and the subsequent system-wide implementation of this teaching approach (2000);
- Establishment of a National Commission of Reflection on the "school of tomorrow" in 1998, whose work has been subject to wide consultation. The adoption of the competency-based approach was one of the recommendations of the general report of the board of consultants; and
- In 2002, the adoption of a new dedicated educational reform: Act No. 2002-80 of July 23, 2002. [12]

Several innovations were introduced by the reform of 2002. Those which concern the promotion of entrepreneurship education in Tunisia are:

- Redefining the functions of schools in Article 7 of the Act namely that the school provides functions of education, instruction and qualification.
- Article 10 describes the qualification function in terms of cross-curricular competencies for learners to acquire the ability to:
 - utilize their acquired knowledge and skills to find unusual solutions and alternative approaches for the issues they confront;
 - adapt to changes;
 - develop a spirit of initiative and creativity;
 - cultivate group work; and
 - adhere to life-long learning

However, the most explicit article is 57 and in particular its paragraph 3, which states that schools must provide students with “entrepreneurial skills”, that develop a spirit of creativity in students and enable them to conceive projects and plan how to implement and assess them using goal oriented criteria. These skills are to be acquired through individual and group activities in all areas of learning, as well as in parallel to school activities.

As shown above, the acquisition of entrepreneurial skills is, by law, an educational objective that the school must achieve. The main question now is how EPE is implemented in educational programmes and activities.

The objective of this study is to assess the status of EPE in Tunisia by targeting especially basic and secondary education, as well as technical and vocational education and training (TVET) within the formal education system.

Definitions of Entrepreneurship Education

Entrepreneurship education has many definitions. In this paper, we will adopt the following one:

Entrepreneurship education is about creating an entrepreneurial mindset/culture that fosters innovation, problem-solving and active citizenship and where individuals have the self-confidence and belief in their ability to succeed in whatever they choose. The objective of entrepreneurship education is to assist young people become innovators and active participants in the labor market. Entrepreneurship education is made up of all kinds of experiences that give students the ability and vision to access and transform opportunities of different kinds. It is about increasing individuals' ability to anticipate and respond to societal changes and encourages individuals to develop and take initiative, responsibility and risks. Not every person who undertakes entrepreneurship training will become an entrepreneur and be self employed, but the skills acquired, especially when linked with practical skills in demand, will surely make a contribution to personal empowerment and increase individual capacities for employability and citizenship. Indeed, the European Commission calls entrepreneurship a “new basic skill”¹.

The methodology adopted in this case study is based on the collection and analysis of relevant official documents, including laws, official reports of the Ministry of Education and Training (MOET), official web sites of relevant Ministries and agencies as well as interviews and discussions with a number of current and retired senior officials of the MOET who contributed to the last reform of education in Tunisia.

The case study is organized as follows: in the next section, we present the Tunisian context followed by an overview of the education and training system. Then we will

¹ Presidency Conclusions of the Lisbon European Council (March 2000).

present in detail, with arguments, statistical and legal references, all aspects, elements and indicators related to EPE either directly or indirectly.

2.2 Context

2.2.1 The demography

With a population of 10 million in 2004 and a growth rate average of 1.21% over the decade 1994-2004, Tunisia is considered one of the few southern Mediterranean countries to have achieved its demographic transition.

Nevertheless, profound changes in the demographic structure in the recent past were accompanied by the emergence of new constraints including the labor market because of pressure from the population in the working age (15-59 years) with a proportion from 48% in 1966 to 53.6% in 1984 to 62.0% in 2001.

2.2.2 The employment challenges

The strong growth of the population age (60-70-80 years old) had an impact on the reformulation of population structure which is characterized by a high rate of the active population growth. This growth of population in the active age will increase in the next decade, till 2015, without a significant decrease that will be around 65% (63.4% - 66.6%) of the general population. According to this, the active population is estimated 6,342,500 and expected to reach 7,000,000 in 2009. Also it is expected to reach 7,637,000 in 2029.

To meet the requirements after opening its economy in 1992, Tunisia wants to increase investment in human resources by strengthening vocational training programmes as well as higher education. The transition to an open economy was indeed a social cost, that of inadequate manpower requirements of companies (50% of the unemployed have not exceeded the level of primary education). It is envisaged to ease the transition through support programmes that foster "employability", particularly through vocational training and rehabilitation measures.

Shortly Tunisia will also have to manage another social challenge: large numbers of graduates of higher education who will seek jobs on the labor market (80,000 each year, with 55% University graduates) [4].

2.3 Overview of the Educational and Training System in Tunisia

2.3.1 Education and Training Strategy

Since independence in 1956, education and training in Tunisia has continuously developed as a result of suitable policy and a strong social demand.

Tunisia has always remained sensitive to changes in society. For example, in 1995, the President of the Republic called for:

"Beginning to think of a methodical and thorough renewal of the mission of the school ... in a world known to undergo profound changes affecting the organization of societies, the structure of knowledge, the methods of work and the means of production, in order to prepare us properly to the future ".

Following this, primary, secondary and vocational education underwent radical changes in its mission, structure, methods and strategies. This change is governed by the Reform Law of 2002.

The guidance law of 2002 is the legal framework for the renovation and revitalization of Tunisian schools. The education of young people at primary school in Tunisia reaches nearly 100%. In 2004, over 85% of the employed population could be considered literate. This development has been accompanied by successive reforms, the most recent one introducing the "Basic School" (nine years), the reform of secondary education through the consolidation of basic education, and finally the promulgation of the Law of Guidance Vocational Training to transform the old plot device of vocational training into a national vocational qualification recognized and valued.

Having solved the problems of universal education, the Tunisian education system now faces the challenges of quality, equity and efficiency. The ambition of the new reform is to prepare schools to meet these challenges. Thus, the 2002 law sought to review all aspects of the education system.

The reform of secondary education started in autumn 2004 and responds to the

increasing flow of students at this level. It resulted in improved access but also in retention within primary education. It relies on several principles, including the upgrading of vocational education and improving communication between the various TVET institutions etc.

2.3.2 Basic Education

The number of pupils enrolled in primary education has been on a slight decrease. This is not due to limited access but results from the demographic transition and falling birth rates. The situation in Tunisia is indeed unique in the Maghreb-North Africa region. The number of students enrolled in primary education has decreased by 400,000 in 10 years (between 1999 and 2009) as presented in Table 1.

Table 1: Evolution of Number of Pupils Enrolled in Primary Education (Grades 1-6)

School Year	Schools	Classrooms	Pupils	Teachers
1983 - 1984	3 066	36 160	1 191 408	33 026
1988 - 1989	3 676	43 466	1 326 150	43 921
1993 - 1994	4 164	46 995	1 467 411	55 720
1998 - 1999	4 441	47 299	1 432 896	59 877
2003 - 2004	4 487	47 532	1 215 888	58 761
2008 – 2009	4 513	45 374	1 006 488	59 011

Source: MOET, *Statistics of Education and Training, Report, 2009*.

Ensure universal primary education for all

Efforts to increase access to basic education in Tunisia were strong in 1990-2000 but have ebbed in the recent decade, since primary education has been almost universal since the mid-90s, with crude rates exceeding 100% for girls and boys (Table 2).

Table 2: Rate of Schooling in Primary Education

Enrollment rate (%)	1998-1999			2003-2004			2008-2009		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
6 years net enrollment	99.1	99.1	99.1	99.0	99.0	99.0	99.2	99.2	99.2
6-11 years net enrollment	97.2	96.8	97.0	96.8	97.0	96.9	97.4	98.0	97.7

Source: MOET, *Statistics of Education and Training, Report, 2009*.

2.3.3 Secondary Education

With the achievement of universal primary education (Table 3), the question of further studies at higher education levels becomes exigent, as the future of these students needs to be addressed. There is increased pressure on secondary education as the enrollment increases (see Table 4).

In Tunisia, secondary education is divided into a first cycle of 3 years (referenced commonly as the second cycle of general basic education) and another 4 year cycle.

Table 3: Rate of Schooling in Secondary Education (1998/1999 – 2008/2009)

Enrollment rate	1998/1999			2003/2004			2008/2009		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
6-16 years net enrollment	88.2	87.2	87.7	90.0	91.0	90.5	90.4	92.4	91.4
12-18 years net enrollment	68.8	68.0	68.4	73.5	77.5	75.4	72.1	78.9	75.4

Source: MOET, *Statistics of Education and Training, Report, 2009.*

Table 4: Evolution of Number of Pupils Enrolled in 2nd Cycle of General Basic Education (Grades 7-9) and in Secondary Education (Grades 10-13)

School Year	Schools	Classrooms	Pupils	Teachers
1983 - 1984	335	10 801	364 492	17 943
1988 - 1989	485	14 411	477 795	23 300
1993 - 1994	665	17 618	605 935	26 817
1998 - 1999	938	25 381	874 814	39 148
2003 - 2004	1 161	33 103	1 076 238	55 717
2008 - 2009	1 325	36 245	1 006 143	71 880

Source: MOET, *Statistics of Education and Training, Report, 2009.*

2.3.4 TVET

In Tunisia around 10% of pupils are enrolled in technical and vocational training represents. Unlike other countries, the numbers are higher at the first level of secondary education than at the second level.

In Tunisia, "training" covers several different areas, namely:

- Technical and vocational secondary education;
- Learning;
- Dual education; and
- Training of employees at work.

It includes, therefore, all roads to the acquisition of a first qualification leading to employment as well as those that maintain or improve skills.

Statistics indicate that 80,000 new jobs will be needed in Tunisia each year. It will be difficult to ensure an appropriate level of training and qualification of both the current workforce new labor market entrance.

The reform of vocational training, which began ten years ago, aims to meet this challenge. The capacity of this type of education has been improved through the creation or restructuring of facilities and improved operation of existing capacity, particularly through the extension of training in companies. This has doubled the flow of new entrants as well as the number of graduates between 1999 and 2004 in just 5 years.

2.3.5 Sector Management

In terms of sector management, Tunisia has developed an education sector plan. A sector plan is the culmination of a process based on national policy choices and defines a coherent set of policies, strategies, activities and investments to achieve interrelated sets of national goals following a specific timetable. It can record all actions in favor of the education system in a common framework and this irrespective of the nature of expenditure (capital or operating), the source of funding (national or foreign) or the channel of financing (aid project, programme aid, targeted or comprehensive budget support). It then defines the strategies in the long-term, ensuring continuity in the development sector. This continuity is accompanied by a dynamic that allows the introduction of changes and the gradual adaptation of plans and annual budgets while the sector plan is focused on results rather than on means.

2.3.6 Public Expenditures

The budgetary expenditures (operating and capital) devoted to basic education and secondary education were nearly 20% in 2005 and nearly 16.25% in 2009 of the state budget, and nearly 6% of GDP (Gross Domestic Product) in 2005 and 5% in 2009. In the early 1980s, these rates were around 10% and less than 4% respectively.

As the objective of universal access to primary education has been reached, the country now spends most of its education budget on secondary education. The cost per student (% of GDP per citizen) in 2005 amounted to 16% in primary, 26% in secondary and 68% in higher education.

2.4 Promotion of Entrepreneurship Education (EPE) in the Education and Training System

2.4.1 The Institution/ School Level

Tunisia is characterized by a good retention rate in primary education. Almost all children enrolled in first grade will enter the last level of primary education. The transition rate to secondary education experienced a significant improvement (over 20 percentage points between 1999 and 2005), allowing 90% of primary school graduates to enroll in the first level of secondary education.

Table 5: Evolution of average of student/classroom

School Year	Basic Education		Secondary
	1st cycle (6 years)	2nd level (3 years)	
1983 - 1984	32.9	34.6	32.3
1988 - 1989	30.5	34.4	31.4
1993 - 1994	31.2	35.4	33.0
1998 - 1999	30.3	34.6	34.3
2003 - 2004	25.6	32.8	32.1
2008 - 2009	22.2	28.6	26.9

Source: MOET, *Statistics of Education and Training, Report, 2009*. [5]

Quality and Relevance of Learning

The question of the quality of learning is a major theme in the debate on education in Tunisia. We may hear all kinds of comments on low level of students and weakness of teacher training in basic skills. The available data is unfortunately scarce and often insufficient to allow a detailed analysis of the skills acquired. However, such information doesn't allow comparisons, and it is a source of critical information to decision makers.

The Tunisian education system has now exceeded its worry related to the quantitative aspect particularly at the basic education level that has seen a net enrollment rate of children aged six to reach the 99% mark and the category of 6 -16 year olds reaches 90.93%, clearly showing that the generalization of education is no longer a challenge. Attention is now turned to a quality approach in education from the aims and objectives to programmes, methods and teaching approaches and evaluation. This qualitative change is clearly laid out in the framework law of 2002.

In 2003 and 2006, Tunisia has also participated in PISA (Programme for International Student Assessment). This initiative, unlike other international programmes does not target different levels of education but the students' age groups. Thus, PISA seeks to assess the acquisition of reading skills, mathematic and scientific literacy of pupils age 15 in the 30 member countries of the OECD and many partner countries. The aim of PISA is to assess the acquisition of knowledge and skills essential to daily life as students approach the end of compulsory schooling. In 2003, in the three areas studied, Tunisia ranked consistently in the last two or three out of 40 countries and is far behind compared to the performance of OECD countries. For example, in mathematics, Tunisian students get an average score of 359, while the 20 best performing countries had average scores above 500. The difference is quite considerable.

Assessment and Evaluation

The school period in basic education has been explored via extended national consultations. This resulted in reducing the weekly school period, particularly in the fourth grade of primary education.

The concept of learning-assessment-remediation has significantly gained importance through the adoption of the competency-based approach as a process of learning as well as a teaching method. This resulted in a revision of curricula and teaching methods, renewal of textbooks and educational materials and renovation of the evaluation system. In recent years, the role of science has been reinforced particularly in the first level of secondary education, to be in tune with the international criteria for evaluation following the gaps in student performance at the international assessments TIMSS and PISA. Note however that Tunisia has suspended extending competency-based approaches at the first level of secondary education despite excellent experiences. The reasons for this include the increased workload of teachers and the reluctance of parents who did not understand the process.

Among the decisions taken in the context of the implementation of the action plan of the “School of Tomorrow”, we can mention those relating to the need to provide learners with a digital culture from the beginning of their time in school to enable them to become familiar with new information and communication technologies.

2.4.2 The Teacher

The beginning of this millennium is characterized by a reduction in the number of primary school teachers in Tunisia (Table 6).

Table 6: Evolution of the number of teachers (1983/1984 – 2008/2009)

	1983/1984	1988/1989	1993/1994	1998/1999	2003/2004	2008/2009
Primary education	33 026	43 921	55 720	59 877	58 761	59 011
2nd cycle of basic education & secondary education	17 943	23 300	26 817	39 148	55 717	71 880

Source: MOET, Statistics of Education and Training, Report, 2009.

This should not necessarily be interpreted as a reduction of the commitments of the state or of the quality of education. The decline in the number of teachers is the result of lower demand for education. The latter, due to the strong demographic transition, decreased by 16% over the period 1999-2005, and the decline of only 2% of teachers can be interpreted more positively. Declining student enrollment was faster than that

of teachers and for this reason, the pupil/ teacher ratio has improved over the period (i.e. from 25 to 21 students between 1999 and 2005). [5]

Teacher Training

The profound changes experienced by the education sector and the arising new requirements are directly reflected in the role of the teacher and the characteristics of the teaching profession. In response, teachers can also use the training organized by particular structures of the Ministry of Education and Training in addition to traditional training. Teachers are also being trained to practice the competency-based approach.

The Tunisian teacher education/training system is oriented toward raising academic standards of teachers in basic education through a decision to recruit, in the future, holders of Master's degree or an equivalent degree (BAC +4), See Table 7.

Table 7: Teacher Qualification/Certification

Year	1st cycle of basic education			2nd cycle basic education and general secondary education		
	Total number of Teachers	Certified teachers (1)		Total number of Teachers	Certified teachers (2)	
		Number	(%)		Number	(%)
1983 - 1984	33 026	7 413	22.4	17 943	9 244	51.5
1988 - 1989	43 921	15 212	34.6	23 300	13 805	59.2
1993 - 1994	55 720	22 051	39.6	26 817	18 005	67.1
1998 - 1999	59 877	30 260	50.5	39 148	31 158	79.6
2003 - 2004	58 761	39 477	67.2	55 717	44 553	80.0
2008 - 2009	59 011	44 630	75.6	71 880	63 504	88.3

(1) Basic Education (Professor/Teacher, Senior Application Teacher, Teacher).

(2) Basic Ed.-Cycle2 & Sec. Ed. (Associate Professor/Teacher, Out-off-class Senior Professor/Teacher, Senior Professor/teacher, Out-off-class Professor/Teacher, Professor/Teacher).

Source: MOET, Statistics of Education and Training, Report, 2009.

2.4.3 The External Dimension

- **National and Regional Level**

Complementing the good efforts being made within the formal education system, the Tunisian system also hosts non-formal entrepreneurial learning (i.e. activities not subject to formal assessment by the state) such as the CEFÉ-ANETI coaching framework for micro enterprise development. One initiative stands out in providing training built on know-how transfer: self-employment promotion through a German–Tunisian cooperation project (the FORTI initiative). Another good practice initiative, Particularly with regard to women’ start-ups, is a training and wider support package for rural women on micro enterprise development? A high profile national award (Prix du Président de la République) ensures good press coverage for this initiative.

[http://www.etf.europa.eu/web.nsf/\(RSS\)/2F6C274FB47E94C2C125722E0049E844?OpenDocument&LAN=EN](http://www.etf.europa.eu/web.nsf/(RSS)/2F6C274FB47E94C2C125722E0049E844?OpenDocument&LAN=EN)

Several government institutions and non-governmental organizations developed programmes to promote an entrepreneurial spirit within universities and semi-governmental companies with a large number of employees.

The Tunisian Bank of Solidarity (BTS) [16] was created through a decision by the President of the Republic in 1997 to help the state in its job creation programme, to allow individual entrepreneurs with no collateral to be able to benefit from small loans and to encourage entrepreneurship. BTS is the first Tunisian bank specialized in small loans for small entrepreneurs (maximum USD 60,000). Loans are provided to university graduates or graduates of technical schools, without any guarantees, at an interest rate of 5%, lowest market rate. BTS encourages young graduates with no financial support to launch business ventures.

INJAZ Al-Arab Initiative

Under the partnership agreements signed in 2008 between the Tunisian Agency for Vocational Training, the foundation "INJAZ Al-Arab," and Shell–Tunisia, the programme “Injaz "was launched March 31, 2009 at the Training Center in graphic arts and printing of Ariana. The module "entrepreneurship" was chosen among the 15 programmes Injaz aims to organize with support from Shell-Tunisia. The programme aims to develop the spirit of entrepreneurship among young people It includes training

sessions on leadership and entrepreneurship through a practical approach covering all aspects of the business life, including roles, decision making, production, marketing and commercialization. The training sessions of this pilot phase are led by senior volunteers from Shell-Tunisia. The first class consists of forty-five students, which are divided into three groups. [6]

- **International Level**

Collaboration with the International Labor Organization (ILO) - KAB

The International Labor Organization (ILO) has introduced the training programme KAB (Know About Business) to teach entrepreneurship in Tunisia. The main objective of this project is to introduce entrepreneurship training at the vocational, secondary and higher education. This programme was introduced in Tunisia in 2003. Today it has been implemented in 50 countries in Asia, Africa, Latin America and the Arab region (i.e. Egypt, Lebanon, Syria, and Oman).

The implementation of this programme includes two phases. The pilot phase (duration of two years) involves the presentation of the KAB programme to policy makers in education sector, the selection of institutions interested in participating in the pilot phase to test (one year) the training in entrepreneurship with students. Note that teachers will be trained for two weeks prior to their respective countries. An evaluation is carried out at the end of the pilot phase. This assessment allows policy makers in education to take a decision on the widespread introduction of this programme. The second phase involves the training of a number of teachers needed for the extension and adaptation of the programme in the education/training system.

In Tunisia, cooperation was established in January 2008 between the University of Sousse and the ILO. The aim is to make the KAB programme available to students in Tunisia through distance learning courses from January 2009, and to introduce students (engineers, economists, doctors, managers and Literary) the idea of becoming entrepreneurs after graduation.

The KAB Project in North Africa

In North Africa, this project began in January 2008. Expected results include:

- Developing national capacity of trainers and teachers of KAB in four countries (Algeria, Egypt, Morocco, Tunisia);
- Providing KAB training in each country in at least 20 schools or training centers and four universities;
- Training at least 8,000 students and students with overall KAB; and
- Establishing a regional network programme for participants in KAB.

The KAB Project in Tunisia

- KAB in basic, secondary education and TVET
 - 25 Vocational Training Centers;
 - 25 secondary schools;
 - Level: 1st year high and equivalent in training centers.

- KAB for Higher Education
 - Project start: July 2008;
 - Number of universities: 4;
 - Number of students: 1000;
 - Number of tutors: 23.

The project has three phases:

- The first phase is to transform the content of the KAB programme to an online version;
- The second phase is to launch education pilot programmes in selected academic institutions for two semesters; and
- The third phase is to evaluate the pilot project and study the possibilities for rolling out the programme into Tunisian universities.

Curriculum of KAB

- Educational programme on entrepreneurship with specific adaptations for vocational education, secondary education and higher education designed in the form of 80 to 120 course hours.

- The training content of KAB consists of 9 modules. Each module represents an important area of business life and is divided into several themes, each corresponding to a certain number of course hours.

Module 1: What is entrepreneurship?

Module 2: Why entrepreneurship?

Module 3: What is the profile of an entrepreneur?

Module 4: How does one become an entrepreneur?

Module 5: How to find a good business idea?

Module 6: How to start a business?

Module 7: How to run a business?

Module 8: What are the steps to becoming an entrepreneur?

Module 9: How to develop one's own business plan?

- **Relevance to the Labour Market**

The enrollment rate of 19-24 year olds in education has reached 31.7% (it was only 6% in 1987) and will exceed 50% in 2010. The increasing access to university benefits in more girls than boys because they represent 56.5% of the total number of students.

The dramatic rise in enrollment in higher levels of education can lead to deterioration of educational conditions and extend the already significant problem of unemployed graduates. Trends show that if the current pace continues, the number of students enrolled in higher education could nearly quadruple in Tunisia between 2004 and 2015. Such enrollment growth requires a real anticipation of government, that must find answers at both the internal university level (local and qualified teachers available) and external level (real possibilities of integrating these new graduates) into the labor market.

Although population growth is under control, a strong increase in the labor force is expected in the coming years under the triple impact of the arrival of many new job seekers on the labor market and from the increased participation of women in the workforce. Tunisia still faces a major challenge, that of employment.

The Tunisian employment policy was based on a set of axioms focused primarily on accelerating the pace of growth, promoting investment, encouraging private initiative and entrepreneurship, establishment and strengthening of a set of labour market programmes and instruments. In view of improving the employability of job seekers and facilitating their integration into working life, and following the 1998 establishment of the Tunisian Solidarity Bank and the establishment of the micro credit system in 1999, the National Fund for Employment was created in 2000. These mechanisms benefited nearly 911,000 beneficiaries before their inception and until the end of 2006.

Along with these instruments, various measures have been taken to encourage companies to recruit mainly graduates of higher education and encourage job seekers to set up their own projects. Programmes promoting youth employment were consolidated.

All of these indicators show that higher education graduates constitute an increasing pressure on the job market not only due to the increased numbers but also because of the mismatch between certain specialties and real needs of the labor market. Such a situation implies that additional efforts must be undertaken to boost the pace of job creation and increase the employability of graduates of higher education, especially in areas with limited opportunities for integration.

Unemployment is structurally high in Tunisia and a significant decrease in the coming years seems unlikely. In addition to the high rate of unemployment, a significant number of graduates are "underemployed", that is difficult to obtain in the statistics. The "underemployment" is defined by the fact that "the duration or productivity of a person's employment is inadequate to another possible job that this person is willing and able to occupy" by the International Labor Organization (ILO).

2.5 Conclusions and Recommendations

The main conclusions drawn from this study indicate that regarding policies supporting entrepreneurship education and training, Tunisia stands out from other countries in the region for its emphasis on the promotion of entrepreneurial spirit and key competences in all parts of the learning system [2], which are enshrined within the 2002 national education strategy (updated in 2008). The potential of this policy framework can come into play in primary and secondary education where key entrepreneurship competences and skills are being addressed.

In our opinion, Tunisia has made important strides in EPE at the legislative level, and

Therefore, the main recommendation, resulting from this study is to proceed as soon

Moreover, regional and international cooperation can be important to help spread EPE

3. Case Study on Oman, Dr. Ahmed M. Al-Ghassani

3.1 Introduction.....	53
3.2 Overview of the Education System.....	54
3.3 Promotion of Entrepreneurship in the Education System.....	56
3.4 Conclusions and Recommendations	79

3.1 Introduction

Many people in Oman used to consider working in one of the government organizations as the best job opportunity. This was due to the benefits offered by government organizations and fewer working hours. Planners and policy makers in the country quickly identified this as an area of concern and therefore efforts were made to change this culture. This cultural change required a lot of planning and resources. One initiative involved modifications to the rules and regulations governing the private sector, followed by improvements to the Omani labour law. Special attention was given to formal education and life-long learning to enable the existing and future workforce to acquire the necessary knowledge in addition to specific skills, attributes and competencies. This is a change aimed at developing Omani citizens who can successfully be self-employed, or if employed within an organization, will have an entrepreneurial mindset.

This report presents a case-study conducted to investigate how entrepreneurship education (EPE) is integrated within the Omani educational system, identifying good practices and at the same time highlighting the difficulties faced and the weaknesses encountered, and finally concluding with recommendations for even better entrepreneurship education. For the purpose of this study, the joint UNESCO-ILO definition has been considered. This states that:

“Entrepreneurship education is conceived in a broad sense, as a pedagogic approach to fostering self-esteem and self-confidence by stimulating and nurturing the talents and creativity of the individual, while building the relevant skills and values that will assist learners in expanding their perspective on schooling and opportunities beyond. Methodologies are based on the use of personal, behavioral, motivational, attitudinal and career planning activities.”²

Initial information for the study was obtained by sending a table designed for information gathering to authorities concerned. This table was developed by NCHRD-Jordan. At this stage, four organizations were approached and all responded. Findings show the availability of initiatives that support entrepreneurship education. Formal letters were also sent to the Oman national Commission for UNESCO and to other institutes to facilitate accessibility to more information. The information obtained was elaborated on and triangulated through meetings with strategy developers, managers,

² UNESCO-ILO (2006). *Towards an Entrepreneurial Culture for the 21st Century*, Geneva

staff and students in the institutes concerned. In addition, the draft report was sent to authorities concerned to share the findings, get clarifications on certain areas and expand on specific issues. This also helped in creating awareness about the project.

The Case Study Report starts with an overview of the education system describing its structure and reforms. Then it highlights how EPE is promoted in the education system at its different levels, namely basic education, post-basic education and technical and vocational education and training (TVET), with a focus on legislation, governance and management, curriculum and recently introduced innovative initiatives. It also elaborates on how teachers are prepared, during their university studies and at work, to transfer entrepreneurial skills to students. The report also covers additional efforts that support EPE, including involvement of NGOs and the private sector at national, regional and international levels. The report concludes by highlighting the lessons learned and provides recommendations on how entrepreneurship education could be improved in Oman and regionally.

3.2 Overview of the Education System

The education system in Oman, as in many countries, is divided into three main levels; preschool, school and higher education. Preschool is only offered in private schools but supervised by the Ministry of Education. School education consists of twelve years of formal study where the Ministry of Education manages public schools and supervises private schools, and the Ministry of Manpower manages vocational training for grades 10-12. Higher education consists of various public institutes managed by government organizations, and private institutes supervised by the Ministry of Higher Education. There are several public higher education institutes in Oman such as Sultan Qaboos University (SQU), Colleges of Technology, Colleges of Applied Science, Health Sciences Institutes, and Nursing Institutes. All programmes and institutes of higher education are accredited by the Oman Accreditation Council. After completing grade twelve in the school level, a student can join one of the higher education institutes by applying on-line to the Higher Education Admission Center (HEAC), which is responsible for ensuring that all students are fairly treated and are given the best available opportunities, based on their preferences and achievement in high school. And students from low-income families who are not successful in

securing a place in higher education institutes can compete to benefit from some of the programmes funded by the government to enter private training institutes or higher education institutes.

The development of the education system in Oman is very dynamic. It has undergone several waves of modifications and reforms during the past four decades. This includes school education and higher education. The latest changes to the school system were introduced in 1998 through replacing the old general education system by ten years of basic education and two years of post-basic education. The new structure of basic education was first implemented in some schools and gradually implemented in other schools. Also, some changes took place in higher education institutes. For example, some vocational training institutes were converted to colleges. Likewise, technical industrial colleges were converted to Colleges of Technology and colleges of education were converted to Colleges of Applied Sciences.

Although the implemented changes improved the different education units in Oman, it was necessary to review the whole system from preschool to higher education. In 1996, to further the aim of His Majesty the Sultan of Oman for a world class system of education, the Council of Ministers initiated the reform of the general education system. In 2003, the Council of Higher Education proposed to the Council of Ministers a project to prepare the Framework for a Strategy of Higher Education for the period 2006-2020. Approval was given for the Ministry of Higher Education to develop the framework. The mandate was subsequently extended to cover all levels of education. As a result, a major review took place during the period 2003-2006 covering the entire education system from preschool through school to higher education. An international conference was conducted in Muscat in 2006 to highlight and discuss “The Strategy for Education in the Sultanate of Oman 2006-2020”. This review included the complete education cycle and concluded with a detailed proposal for restructuring. The review focused on many important areas such as preschool, supervision of higher education, governance, management and optimization of expenditure in education. A major part of the review focused on improving the quality of graduates and proposed different approaches for preparing them for the job market through providing them with entrepreneurial skills. Many of the recommendations of

the strategy have been implemented or are being implemented. Others that need special resources or new legislation are being considered by the government.

3.3 Promotion of Entrepreneurship in the Education System

Entrepreneurship and entrepreneurship education are receiving increased attention in Oman. This attention takes different forms such as research, expenditure, curriculum development, teacher training and collaboration with NGOs. As far as research is concerned, several research projects were conducted or are still being carried out. Most of these projects are supported by Sultan Qaboos University (SQU) and The Research Council in Oman. One of the projects conducted in SQU aims at investigating the entrepreneurial attitudes and trends in high school students and how the school system supports EPE.³ Another research project entitled “Towards Enhancing Entrepreneurship Development in Oman” highlights the emergence of entrepreneurship education and training and reviews relevant programmes and activities in Oman⁴. Other projects are also supported by the Research Council in Oman. The following sections describe how entrepreneurship is promoted within education system of Oman.

3.3.1 Legislation

Oman designed its education system around supplying higher education and the labour market with students who possess the required knowledge, skills and attributes. This has been considered in the legislations developed and the implementation within schools and higher education institutes. A shared “Vision for Education” was developed by the Ministry of Education and Ministry of Higher Education as⁵:

“Our Vision for Education in the Sultanate stems from the commitment of Omani citizens who strongly believe in the noble tents of Islam and who honour their traditional Arab heritage. They will take Oman forward into the global world as a fully modern nation noted for its contribution to Science and to the advancement of human civilization in the new Era of knowledge. And this will be

³ Al-Harhi, A.S. and Al-Jabri, K.N., Entrepreneurship Attitudes of Secondary School Graduates in the Sultanate of Oman: implications for teacher education. International Council on Education for Teaching (ICET), 54th World Assembly. Muscat, Oman.

⁴ Khan, G.M. and Al-Moharby, D. (2007), Towards Enhancing Entrepreneurship Development in Oman, *Journal of Enterprising Culture (JEC)*, vol. 15, issue 4, pp. 371-392

⁵ Ministry of Higher Education and Ministry of Education (2006). A Summary of: The Strategy of Education in the Sultanate of Oman (2006-2020), Sultanate of Oman.

achieved through a new approach to Education that supports the nation's economic and social development; that is relevant; that meets international standards; and that ensures that all Omanis have the required skills and competencies for life and for the workforce; and that perpetuates Life-long Learning."

The Vision Statement reveals that Oman is adopting a new approach to education which "... ensures that all Omanis have the required skills and competencies for life and for the workforce; and that perpetuates Life-long Learning". Focus, in the Vision Statement, on the skills required for life, workforce and life-long learning stresses the commitment towards incorporating entrepreneurial skills within the education system. The school system in Oman consists of basic and post-basic education where both are designed and developed to ensure that students are prepared to be good citizens who can use the skills they acquired in school whether they become higher education students, employees, or even entrepreneurs. Aims of the basic education include⁶:

"Aim5: Provide a learner-centered education which furnishes the learner with appropriate life skills through the development of self-learning, scientific and critical thinking and the ability to understand and apply contemporary scientific and technological innovations.

Aim6: Ensure that students are adequately prepared for the requirements of further and higher education, the labour market and modern life generally."

Post-basic education provides an opportunity for students to continue the development of entrepreneurship skills required for higher studies, employment and career planning. It is based on the principles of the Omani Philosophy of Education and is designed to address the national and international expectations. The characteristics identified by the Ministry of Education as desirable for internationally recognized system include⁷:

"Characteristic 2: Student-centered, activity based learning activities that allow students to develop understanding and problem-solving abilities which can be applied in a variety of real-life situations.

Characteristic 4: A core programmes that emphasis the development of employability skills and universal competencies.

⁶ Ministry of Education (2009). Basic Education: Aims, Implementation & Evaluation. Sultanate of Oman

⁷ Omani Ministry of Education (2008), Post-Basic Education Programme: Grades 11 and 12. Sultanate of Oman.

Characteristic 5: Flexibility that permits the ministry, educational regions or even schools to adapt to engaging needs of the community in terms of Grade 12 graduate skills.”

To achieve these characteristics, the Ministry of Education developed the “Aims of Post-Basic Education”. Aim 6 is: “*Develop different types of problem-solving thinking and abilities, as well as employ scientific thought in practical real-life situations and arrive at relevant decisions*”. This aim stems from the Vision Statement and is a continuation of the Aims of Basic-Education. It supports continuing the development of problem-solving and decision-making skills which are essential to entrepreneurship.

The above shows that legislations of the Ministry of Education support entrepreneurship education

This case study focuses on the school system and technical and vocational education and training (TVET). The vocational training centres and colleges of technology also have several legislations that support Entrepreneurship Education. The key of these are the “Graduate Attributes” which are directly or indirectly relevant to entrepreneurship education. Some of the Graduates Attributes for the Colleges of Technology are listed below⁸:

“Attribute 1: Are discerning and disciplined individuals acting at all times according to ethical and moral principles.

Attribute 2: Are able to apply the knowledge and skills they have acquired in the work environment.

Attribute 3: Are able to think critically, analyze and solve problems.

Attribute 10: Are able to demonstrate and apply their entrepreneurial skills”.

These attributes focus on three main areas that are crucial at the work place and support entrepreneurial thinking. First, they focus on respecting the values of the institute and following its rules and regulations and at the same time acting according to ethical and moral principles. This supports trust, commitment and stability at work. Secondly, these attributes support critical thinking and problem solving, which are

⁸ Omani Ministry of Manpower (2008). Strategic Plan for Colleges of Technology (2008-1012). Sultanate of Oman.

needed by any entrepreneur to be successful, not only at work, but also in life. This skill enables graduates to look at challenges from different angles and analyze them in a logical and scientific way, hence finding proper solutions. The third area that the Graduate Attributes focus on is the demonstration and application of entrepreneurial skills which is a requirement for graduation. Through these entrepreneurial skills, students are better prepared for higher education and for work.

3.3.2 Expenditure on Education (Schools and TVET)

The Government of Oman has increased its expenditure on education during the past four decades. This was reflected by the number of students, teachers and schools. The following table shows the growth in public schools over the period 1995-2008.

Table 1: Growth in public schools in Oman (1995-2008)⁹ and ¹⁰

Year	1995	2000	2005	2008 ¹⁰
Schools	953	993	1046	1047
Classes	15024	17141	19664	20000
Students	488797	554845	568074	540000
Teachers	22292	26416	37500	43000
Student/Teacher	22	21	15	13
Student/Class	33	32	28	27

Table 1 reveals that there were 953 schools in the Sultanate in 1995, with a total student component of 488,797. The teacher-student ratio was approximately 1:22, and the average number of students per class was 33. In 2008, the number of schools has increased to 1047 with over half million students. The table shows a continuous increase in the number of schools, classes, and teachers although there was a slight decrease in the number of students between 2005 and 2008. Despite the decrease in the number of students, the number of teachers continued to increase, resulting in the teacher-student ratio gradually decreasing from 1:22 in 1995 to 1:13 in 2008. Also,

⁹ Omani Ministry of Education, Website: http://www.moe.gov.om/Portal/sitebuilder/Sites/EPS/Arabic/IPS/Right_Menu/Edu_System/eduinom an1.aspx

¹⁰ Ministry of National Economy (MoNE) (2009). Statistical Year Book. Sultanate of Oman, Website: <http://www.mone.gov.om>, accessed 8th January 2010.

the number of students per class dropped from 33 to 27. The budget allocation for education has always increased in terms of GDP and GNP. This increase in expenditure on education reflects the government's commitment towards improving the quality of education by introducing improved facilities, using new technologies, reducing the teacher-student ratio and supporting entrepreneurship education.

Expenditure on TVET has also seen large increases. This resulted in an increase in the number of annual admissions in colleges of technology from 2000 students per year in 2003 to 6000 students per year in 2006. Also, the number of vocational training centres and colleges of technology have increased to absorb the increase in students. For TVET, a large portion of the expenditure was spent on reviewing and developing the curriculum, improving facilities, and building new centres and colleges.

3.3.3 The Institution/School Level

In 1970, Oman had three schools with 909 male students which increased to 1,045 schools with over half a million students in 2005. The school system in 1970 was divided into elementary, preparatory and secondary.

Schools in the old system were managed centrally by the Ministry of Education. This was a good system and resulted in consistency of implementation. However, the quantum leap in the number of students, teachers and schools resulted in decision making becoming slower and the adoption and implementation of new initiatives becoming difficult. This resulted in school managers not being able to develop creative ways of managing their schools or developing their teachers. The need therefore arose to introduce a system that supports better management with faster and more efficient decision making capabilities to ultimately produce quality graduates who are well prepared for the job market and for higher education.

In 1995, the recommendations in the report on the future vision for the economy of the country were adopted. The report, entitled "The Vision for Oman's Economy – Oman: 2020", became the main pillar in the strategy for the development of

education.¹¹ Beginning in 1998, a new basic education system for classes 1 to 10 was implemented in phases. Basic education was followed by post-basic (secondary) education, comprising grades 11 and 12. This reform supported the initiative of providing students with life skills that prepare them for higher education and for joining the labor market.

Implementing the new system required many resources such as competent human resources and advanced infrastructure technologies. To allow for proper implementation of the new system and to identify its weaknesses and modify them accordingly, it was decided to implement it gradually, starting with grade one in a small number of schools, then moving to the next grade in the following year and gradually increasing the number of schools. Decentralization of responsibilities was also done gradually to facilitate better school management and allow better teacher and staff development programmes. More information on the school education system in Oman can be found on the Ministry of Education website, www.moe.gov.om.

3.3.4 Basic Education

Basic education provides learners with basic and necessary knowledge, skills, attitudes and values. It comprises two cycles, cycle one for grades 1 to 4 and cycle two for grades 5 to 10. The term basic education refers to an alternative non-traditional educational system designed to address the needs of a certain region or country. It supports learners in continuing their education and training based on their interests, aptitudes and dispositions to face the challenges of present circumstances and future developments in the context of comprehensive social development.¹² This confirms that the basic education promotes, at an early stage, an entrepreneurial bent of mind by focusing on linking theory to practice and providing learners with communication, self-learning and critical thinking skills. It also equips them with work values and ethics and promotes flexibility and adaptability to change.

¹¹ Ministry of Education (2007). Midterm Evaluation Report on Education For All (EFA), requested by UNESCO. Muscat, Oman, July 2007.

¹² Ministry of Education (2009). Basic Education: Aims, Implementation & Evaluation, Sultanate of Oman.

3.3.5 Post-Basic (Secondary) Education

Post-basic education comprises grades eleven and twelve. In this segment, students are prepared for their future academic career, which may take them into vocational, technical or university education, or work depending on their aptitudes and career objectives. It aims at continuing the development of key skills, work skills and career planning skills. It also focuses on developing positive attitudes towards work, society and the environment. Post-basic education encourages more independence in learning and provides students with life skills. At this stage, there is no streaming of students into science and arts. However, students are oriented about the different specializations available in higher education and the subjects needed for each specialization. Career advisors in schools provide counseling to students to help them identify their abilities and advise them on relevant career options so that they can decide which courses to take in grades 11 and 12. This provides students with entrepreneurial thinking and encourages career planning at an early stage.

Entrepreneurship Education in the School Curriculum

The Directorate General of Curriculum Development in the Ministry of Education is responsible for the development of the curriculum for public schools in Oman. Also, the Ministry of Education supervises the curriculum of private and international schools to ensure compliance with Ministry requirements and strategies.

The curriculum in basic and post-basic education focuses on preparing the student for a productive life. Subjects taught at the basic level include: Arabic and English, mathematics, science, IT, life skills etc. In post-basic education the subjects taught include: business English, IT for communication and business, research methodology, life skills, applied mathematics etc. These subjects include several environment and social values such as: use of natural resources, aesthetic appreciation, art, music and sport. The curriculum also includes work ethics such as: honesty, self appreciation, mastery of work, teamwork, and positive attitude towards handicrafts and manual labor. Moreover, there is a lot of focus on life skills such as critical and creative thinking, time management and self learning to produce self-sustaining generation of dynamic and progressive young entrepreneurs. Some of the subjects taught are briefly described below.

Applied Mathematics is taught in the 11th grade to be applied in the local economy and commerce. Topics in the first semester include transactions in financial markets, the financial system and its components, securities and stocks, bonds and bond rating, etc. In the second semester, topics taught include: introduction to the principles of economy, supply and demand, factors affecting demand, the law of supply, monopolies and monopoly types, inflation types, causes and effects, etc. Thus, students are groomed in economic theories and practices at an early stage of their studies to help create entrepreneurial thinking within important subjects like applied mathematics.

Life Skills: This subject is taught in grades one to twelve in basic education and post-basic education. It aims at consolidating the belief in honest and productive work, providing students with positive work ethics, encouraging interest in Oman's traditional crafts and appreciation for people who work in it, helping students to acquire and master job skills by learning and practicing in the local environment, and directing the students to work in different areas of production as well as in Oman's industrial, agricultural, commercial and tourist sectors.

Other significant subjects taught include *Information Technology*, which is offered to grades one to ten in basic education with the aim of offering knowledge and skills in information technology. In addition, *Research Methodology* is a course offered to help students acquire research skills using scientific approaches to enable them to use these skills and improve their knowledge even after they graduate. *Computer Applications in Communication and Business* is a course taught to grade 11 students. Students in this course are taught the communication applications that are used in business and how to use them. *English For Business* is another important subject that helps learners to communicate in English in the local as well as international context.

The National Career Guidance Centre (NCGC)

The NCGC was established to provide career guidance to students at their different levels of study in schools and to job seekers. Each school with less than five hundred students has a career guidance specialist. Schools with five hundred students or more have more career guidance specialists. An important role of the centre is to provide training to career guidance specialists in each school to enable them to help students

in the transition from school to higher education or to the job market. The process of career guidance involves students, their parents, and teachers.

The centre supports schools that teach 5th grade up to 12th grade. In each educational region of the country, there is a career guidance head and supervisors. Overall, there are 55 career guidance supervisors covering all parts of Oman. The NCGC implemented several programmes that promote entrepreneurship education. For instance, the NCGC participated in the Muscat Festival by sponsoring a colouring and painting activity in which young children focused on the environment and culture as well as professions and handicrafts. Several career guidance activities are provided to assist the students in identifying their talents and abilities when considering their future career. Some elements include: decision making, steps to success, self confidence, positive view on life, college study, starting up small projects, skills for successful presentations, organizing and completing a student career file etc.

The NCGC and its regional offices also provide training for career guidance supervisors and specialists to help link the preferences and capabilities of the student with the demands of the job market. The NCGC participates in creating awareness by issuing several brochures, booklets and guides to support the students in planning their higher education and career futures and to provide them with entrepreneurial skills. These booklets are used in activity sessions to support student guidance. One of these is “Your Career Path” for grades 10-12, which promotes career guidance discussions. The activities covered include “My Vocational Tendencies and Personal Characteristics” in which students are provided with an overview of entrepreneurial possibilities to help them identify any traits they may have that will help them develop into entrepreneurs. “My Career Future” and “My Vocational Plan” help students map their future life goals, plan these goals through education and learning, and directly promote entrepreneurial spirit and kindle growth of enterprise among students. Guides like “My Education Desires” and “My Study Future” help the students decide their academic future and support them in achieving their goals. “Voluntary Work” stimulates the students to use their skills in helping the community to help the vulnerable. “Problems and Solutions” helps students use problem solving techniques in their lives and careers. “Effective Communication Skills” helps to develop the communication base of students so they can succeed in careers as well as in

enterprises. "Time management" helps students ration out their time, and use it effectively.

3.3.6 Technical and Vocational Education and Training (TVET)

Vocational Training

Vocational training plays an important role in preparing and qualifying school leavers who complete grade ten or above to meet the country's requirements for a qualified national labour force in various vocational areas. To achieve this goal, the Ministry of Manpower represented by the Directorate General of Vocational Training has developed vocational training centers which keep abreast of the requirements of the Omani labour market for a semi skilled and skilled national workforce.

Three levels of vocational qualifications are offered in vocational training centers, making a three-year programme. Students who complete grade nine at school can join the first-year programme in the vocational training centre, whilst those who complete grade eleven or twelve can join the second-year programme. To make the system more flexible and to enhance students' opportunities in finding jobs, students in vocational training centers can leave the centre after completing any level. They can also come back to continue their studies after spending some time working in industry. It is believed that this creates more entrepreneurial thinking within the study programme.

Blending training and work leads to the Omani private sector playing a major role in ensuring that graduates are qualified technically and vocationally, so they can play a considerable role in increasing efficiency and productivity in the various economic sectors and boost national development in the country. The government has paid special attention to vocational training centers, which were expanded and developed to cater to more students and to continue providing the labor market with a qualified and well trained national labor force.¹³ To ensure that adequate curricula are developed and that appropriate entrepreneurial skills are included, both the public and private sector participated in the development of the curricula of the vocational training centers. This was possible through the involvement of the Sectoral

¹³ Ministry of Manpower webpage http://www.manpower.gov.om/en/vocatrainning/v_introduction.asp

Committees of Omanization, which consists of key representatives from the private and public sectors. After the curricula were developed, they were presented in a conference and a series of workshops with participants from different sectors in the country and representatives from local bodies such as Advisory Council (Majlis Al-Shura), State Council (Majlis Al-Dawlah), and regional/international organizations such as ALO, ILO and German Technical Cooperation (GTZ). The feedback received was taken into consideration before finalizing the curricula.

Following recommendations of the ILO to allow vocational training graduates to continue their studies by making the system more open, distinguished graduates from vocational training centers are now allowed to attend a one-year bridging programme equivalent to the foundation year in the colleges of technology, after which they can join the colleges of technology to continue their studies. Bridging vocational training and technical education is a new approach which was first implemented in September 2008. It resulted in several changes to the curricula of vocational training centers with more entrepreneurship skills being added.

Vocational training centers in Oman have also participated in several national and regional activities. One major achievement was the participation in the Gulf Cooperation Countries (GCC) Skills competition which took place in the United Arab Emirates in 2008. The GCC Skills competition is a replica of World skills and is conducted to prepare GCC students to participate in the World skills competition. In the GCC Skills competition, Omani students won most of the gold medals.

Entrepreneurship Education in the Vocational Training Curricula

The Directorate General of Occupational Standards and Curricula Development in the Ministry of Manpower has the task of developing the occupational standards, learning outcomes and curricula in vocational training centres to meet the requirements of the Omani labor market. Such an objective is achieved through direct relations with the Centre for Occupational Standards and Skill Testing and other bodies. The Directorate General also studies general vocational trends in the light of developmental progress and introduces mechanisms to meet their requirements.

Students in the vocational training centres study several subjects which have been carefully designed to provide the students with the technical and life skills. Recently, mathematics and information technology have been reviewed and improved to satisfy the needs of the industry. *Mathematics* courses have been tailored to address the needs of the job market, thereby linking theory to practice in a way that shows students more approaches to use their mathematical and logical thinking skills in their lives. *Information Technology* courses have been redesigned to address the new advances in technology in order to provide graduates with all the skills they need at work. Also, a course on *Work Ethics* has been introduced to help prepare students for the work environment. This course focuses on respecting work values, Islamic values and skills required to succeed at work such as leadership, teamwork, etc.

Technological Education

Apart the vocational training, the Ministry of Manpower is also responsible for providing technical/technological education. There are currently seven colleges of technology distributed in geographically dispersed areas. A major change took place in the colleges of technology in 2003, when the qualifications structure and the programmes offered were changed. Furthermore, intake tripled during the period 2001-2006 from 2,000 to 6,000 students per year. A second surge is anticipated over the next few years.

Technical education comprising competency-based knowledge and skills is imparted to students in various technical subjects. Because teaching in the Colleges of Technology is conducted in English, all students are first groomed in English language skills through the foundation level courses offered under the aegis of the English Language Centers controlled by the English Language Office at the Ministry. During the foundation programme, students are required to work on communication skills in the form of presentations, debates, public speeches, etc. During the foundation programme, students are also offered skills courses in mathematics and information technology. The standards of these courses were developed by the Oman Accreditation Council. In addition, students are required to achieve certain scores in the Institutional Test of English as a Foreign Language (TOEFL) and must pass the International Computer Driving License (ICDL) test.

Colleges offer more than 30 specializations in engineering, information technology, business studies, applied science, fashion design and photography. However, individual colleges do not necessarily offer the same specializations as these depend on the requirements of the industry in the region of a particular college. After successfully completing the foundation programme, students are enrolled in a four-level programme, where they are awarded one of the following qualifications: certificate, diploma, higher diploma or the bachelor of technology. Progression from one level to the higher requires achieving certain grades at the lower level.

During the initial stages of their operation, colleges were managed centrally with most decisions coming from a governing Ministry. As the number of colleges increased with the programme offerings exceeding 30 different areas at different levels and with the number of staff and students doubling several times, it became increasingly necessary to give autonomy to the colleges. The Ministry of Manpower also realized that faster, more efficient and innovative decisions could only be made within each college. Gradually, more responsibilities were transferred to the colleges.

Entrepreneurship Education in the Curricula of the Colleges of Technology

Academic departments in the colleges of technology prepare their students for an entrepreneurial career by providing knowledge, skills and attitudes. Curricula in the colleges of technology include several courses that directly or indirectly support entrepreneurship skills whether in class or through extra-curricular activities in addition to specific training programmes.

On-the-job training (OJT), also called work placement, is compulsory in colleges of education although optional in many institutes. To make training more beneficial to students and to guarantee proper transfer of work and entrepreneurial skills to trainees, another initiative has also been added, namely the Enhancement Practical Training (EPT) which is referred to as compensatory training in some countries. Both OJT and EPT follow programmes that are closely supervised and monitored by assessors from the colleges and industry as described below.

On-the-Job Training: As colleges of technology are supervised by the Ministry of Manpower, there has been a lot of focus on developing an entrepreneurial culture

within the study programmes. This resulted in several new approaches being implemented. OJT in colleges of technology is treated as an academic course with clear objectives and learning outcomes that vary according to the specialization of the student and his or her level of qualification. Each student undertaking OJT has two supervisors, one from the college and a second from the institution where the student is being trained. The student has to complete a training log book, which is signed by both supervisors. After the training, each student makes a presentation about the training programme. In order to support this initiative, each college has an OJT department, which is supervised and guided by the college deanship and the Industrial Link Office in the ministry.

Enhancement Practical Training: As OJT depends largely on the institute to which the student is attached, it was found that in some cases, not all the learning outcomes were covered during the training period. EPT was therefore designed to follow OJT. Enhancement training is completed over a period of six to twelve weeks and is conducted within the college to cover areas that could not be covered during OJT. Students spend some of their EPT training in their department of study and another period in other administrative and technical departments of the college according to a programme designed for this purpose. During the EPT period, there is more focus on entrepreneurial skills, so students get further training in many skills, including communication skills, job-seeking approaches and establishing their own business. At the end of EPT, students are required to make presentations about what they have learned.

In addition to OJT and EPT, many practical job skills have been included in the courses offered to students. Also, several new courses have been added and generally offered to all students regardless of their specialization. Some of these courses are: entrepreneurship, business ethics, job search techniques, formal logic and formal Arabic communication, which is the only course delivered in Arabic. These courses are described below.

Entrepreneurship: This course is offered only to students in the Business Department. The goal of the course is to create awareness and understanding of entrepreneurship amongst students. During the course, students are exposed to theory as well the

experience associated with entrepreneurship. The course covers areas such as financial management and planning, legal regulations, concepts and tools in developing new ventures, and communication tools for small business¹⁴. Thus, aspects of entrepreneurship are imparted to students making them able to understand the vital role of entrepreneurs and small business in the global economy. They are made to understand the difference between entrepreneurs and business people and identify small businesses and the industries established by most small firms. They are able to compare the advantages and disadvantages of small business and analyze opportunities for entrepreneurs. They also assess challenges that can arise in the business environment. Students are taught how to run a small business, as well as concepts of family business, small business risks and government regulations. Business students also study the management process and management of small firms. Finally, students are required to develop a working model of entrepreneurship by creating a small business plan.

The following courses are compulsory for all students in the colleges of technology. They aim at helping them improve their entrepreneurial skills.

Job Search Techniques: This course is designed to assist students in improving their chances of employment. In this course, emphasis is given to the various techniques used in searching for a job and the relevant strategies required in securing it. It also helps those who want to start their own business learn how to recruit staff. So besides helping students to prepare their own resumes, it also helps them to compare resumes and shortlist job applicants. In addition, the course covers interview skills, which students gain via simulated job interviews, role playing both interviewer and interviewee.

Formal Logic: Formal logic focuses on giving students the skills to use logic in their daily lives. It helps them to solve problems and improve performance at the workplace. Through this course, students are also prepared to communicate rationally and logically, whether within an organization or outside. The course emphasizes logical communication, analytical skills and rationality in the thought process. To

¹⁴ Ministry of Manpower (2009). Degree audit for HRM, Colleges of Technology. Sultanate of Oman.

improve their entrepreneurship skills, argumentative skills are developed to make future entrepreneurs more persuasive. Reasoning and presentation skills are developed to give the students confidence and help them work effectively. These skills are taught using simulation games and exercises, during which students are provided with scenarios that require a logical approach and rational thinking to solve simple to complex problems.

Business Ethics: Business ethics helps equip the students with the highest ethical standards to guide them through real life dilemmas. Students are made to comprehend the concept of values, especially Islamic and Omani values that are at the core of the social fabric of the people. This includes realizing the importance of understanding the code of ethics or code of conduct of an institution and profession. The students are made to understand, appreciate and respect ethnic and cultural diversity which prevails in the workplace and learn to be able to work with people from different ethnic and cultural backgrounds in a moral and ethical manner.

Formal Arabic Communication: This is the only course taught in Arabic in colleges of technology. It helps students develop their formal Arabic business communication skills. The course covers basic grammar and syntax and teaches students to develop well structured sentences, which are helpful in improving written and spoken Arabic. Students are taught formal writing in Arabic, as well as skills for speaking in a persuasive manner. They learn how to summarize, paraphrase and be concise in letter and report writing, as well as how to prepare a meeting agenda and meeting minutes. In addition, they are taught how to participate and argue in meetings and discussions and to defend their ideas and proposals when they make presentations.

Omani Labor Law: The Ministry is currently investigating the need to introduce a new course to all students, namely “Omani Labour Law.” This course would help graduates understand their rights and duties as employers or employees.

Business Simulation Centers (BSCs) in the Colleges of Technology

Although OJT has been very successful in the colleges of technology in areas like engineering, it has been more challenging in specific areas such as business studies. This is due to the fact that some organizations perform most of their business

activities in their main offices, e.g. accounting, human resource planning, and recruitment, which means that students undertaking training in the regional offices are less exposed to specific activities. Also, the nature of some commercial businesses does not allow student access to certain data or operations. These limitations inspired the development of business simulation centres (BSCs) in the colleges of technology to support learning and training using modern techniques¹⁵. The Ministry of Manpower decided to pilot this initiative at Nizwa College of Technology then to replicate it in the other colleges of technology in a phased manner.

The BSC is a unique project being developed at Nizwa College of Technology and funded by the private sector in collaboration with the Ministry. The Ministry of Manpower considers entrepreneurship a key element for improving the chances of its students after they graduate. The colleges of technology have taken a quantum leap by offering a real life scenario to students to experiment with and experience true business skills under through the business simulation centres (BSC)¹⁶.

The BSC aims to offer proper training and integrate entrepreneurial culture within the college academic programmes by providing an actual functioning business enterprise, totally managed by students. It offers college students a genuine experience with normal business practices not taught in textbooks or classrooms or even in the guarded environment of the industry during OJT. The BSC consists of a two-storey building with the outlet on the ground floor and the company administration on the first floor. It will be accessible to all college students, but the first stage focuses on business students. The second phase will include information technology (IT) students, who will be responsible for developing and maintaining the software applications required for the enterprise such as the accounting software, the inventory software and the human resource management software. IT students can also create and develop IT solutions and sell them through the BSC. Also, an e-business company is being planned to be one of the center's businesses. The last component will include engineering students who can produce merchandise and sell it through the BSC after

¹⁵ Ministry of Manpower (2007). Minutes of Board of Trustees of Colleges of Technology. Sultanate of Oman.

¹⁶ Nizwa College of Technology (2009). Guide to Business Simulation Centre. Business Studies Departement. Directorate general of Technical Education. Ministry of Manpower, Sultanate of Oman.

agreeing on the marketing approach with students of marketing. All aspects of the centre will be organized, managed, and executed by the students. Minimal supervision will be provided by the college. Construction of the BSC has been completed and it is hoped that the BSC will commence functioning in the first half of 2010.

3.3.7 Teacher Education and Training

Human resource development is a high priority area for the government of Oman. Two types of training exist for teachers: pre-service and in-service. Pre-service teacher training takes place in institutions such as the colleges of education, which are administered by the Ministry of Higher Education, the College of Education at Sultan Qaboos University and in private universities. In-service training is the responsibility of the Ministry of Education.

Pre-service Teacher Education and Training

Pre-service teacher training takes place in higher education institutes that provide education programmes and prepare future teachers. These institutes are a mixture of public and private institutions. Some of them were visited in the preparation of this study to establish if entrepreneurship education is being considered in the programmes offered. It was found that many entrepreneurial skills are generally covered, including: communication skills; making presentations; and IT skills. However, it was observed that entrepreneurship education in teacher training programmes is at an early stage in these institutes.

Teacher Education and Training for School Teachers

The Ministry of Education has several units that contribute to teacher training in entrepreneurial education. Several ambitious initiatives have been undertaken in this regard. The following units are directly or indirectly involved in teacher training programmes: the Directorate General for Human Resources Development, the Directorate General for Curricula Development, the National Career Guidance Center, and Injaz Oman.

Although the Directorate General for Curricula Development is mainly involved in the development of curricula, supervisors from this Directorate visit schools to explain to teachers how to approach each of the entrepreneurial skills covered in the

curricula. Also, the National Career Guidance Center trains the career guidance supervisors and specialists on how to transfer entrepreneurial skills to students, as described above. Injaz Oman conducts a separate and dedicated teacher training programme for teachers who participate in the Injaz programme and the programme consists of fifteen modules, most of which are geared towards equipping students with the skills needed to start a business. More information about Injaz Oman is included later in the report. Although the above mentioned are very useful initiatives, further development is still required for more comprehensive programmes designed to support EPE.

Teacher Education and Training for TVET Instructors and Teachers

Teacher training in entrepreneurship education in the vocational training centers has focused on the implementation of the Know About Business (KAB) programme. Other training covers soft skills such as communication skills, IT skills, and English. This area however, needs further development as well-planned training programmes need to be established.

The colleges of technology have adopted several programmes for teacher training focusing on entrepreneurship education in addition to other areas. The focus of the training programmes is on newly recruited teachers and lecturers. After recruitment, these teachers are sent abroad for a Master's Degree. They then spend a few months working in industry to gain industrial experience and to acquire entrepreneurship skills, followed by a few months of training within the college to learn modern teaching techniques and methods of transferring knowledge and skills to students.

Entrepreneurial education is a relatively new concept, somewhat removed from conventional teaching. Therefore, it is essential that teachers coming from conventional teaching backgrounds can adapt and are properly absorbed into this programme. They require orientation and specific training to be able to promote this concept among their students. ☺☺All new teachers are provided with specific orientation programmes introducing them to the concepts and methods of teaching the different skills, including entrepreneurial skills. They are paired with experienced senior teachers who are involved with specific entrepreneurial skills subjects, and who act as mentor who brief, coach and support new teachers to polish their skills.

There are also programmes to teach teachers involved in the KAB programme. These programmes train teachers in the delivery of KAB and encourage them to use techniques to stimulate student participation and proactive learning, including presentations, group discussions, work in small groups, case studies, individual tasks, projects, brainstorming, role playing, guest lectures, business simulation games and interactive computer simulations.

Other training programmes include teachers who teach or supervise students in the business simulation center. This training includes inviting business leaders from the industry to train the college teachers so that industrial culture is transferred to the college.

3.3.8 The External Dimension (National, Regional and International Initiatives)

At the National Level

1. Career Awareness Programme (CAP) in Collaboration with Shell Development Oman

Many initiatives have been launched by the private sector to encourage young people to take up independent business options. One such initiative is the Career Awareness Programme sponsored by Shell Oil Company and delivered to students at different levels of study in schools, vocational training centers, colleges of technology, etc. This programme provides training in specialized skills to familiarize students and job seekers with those skills and allow them to be more easily absorbed in the business world. The programme also offers students workshops, seminars and tutorials and provides concentrated training packages to enhance their skills, making them realize and appreciate their strengths while overcoming their weaknesses.¹⁷ The programme develops soft skills like personal goal setting, career selection, resume writing, and presentation and communication skills in an effort to provide new job seekers better career opportunities.

¹⁷ Shell Development Oman (2009). Shell Oman Career Awareness Programmeme (CAP). Mina Al-Fahal, Sultanate of Oman.

2. SANAD Incubator Programme at Colleges of Technology

The SANAD programme, which has been a successful programme all over Oman, promotes the launch of youth business ventures through the provision of loans and expertise to recent graduates. Strictly speaking it is not an entrepreneurial education programme. However, it supplements entrepreneurial education by providing recent graduates with ways and means of starting their own businesses. Recently, SANAD has also become involved in promoting entrepreneurship activities in the colleges of technology through their SANAD incubator programme. The SANAD incubators programme helps young entrepreneurs from technical colleges start their own enterprises through monetary and technical support. These young entrepreneurs are expected to build their own businesses with a head start in the business world. This is a new initiative of the SANAD programme and is expected to pay dividends to entrepreneurship education programmes. Also, the colleges of technology are considering more interaction between BSCs and the SANAD incubator programme in the near future. It is expected that this interaction will create a new dimension in entrepreneurship education.

At the Regional Level

1. Injaz Oman in Schools and Colleges of Technology

Injaz Oman is a non-profit organization registered under decision number (2/2006) issued by the Sanad chairman on the 13th of Dec 2006. The mission of Injaz Oman is to inspire and prepare young people to succeed in a global economy. Injaz Oman is linked to Junior Achievement (JA) worldwide. It provides hands-on learning experience to young people in enterprise education from school to university level. Injaz Oman also works very closely with Injaz Al-Arab, which was founded in 2003. The motto of Injaz Oman is “Helping People Improve their Competitive Performance,” which is the number one priority of Arab business leaders as revealed by the Arab Business Intelligence Report published January 2006 by Price Waterhouse Coopers and Moutamarat. Injaz Oman has strong links to and support from the industry as the Injaz Oman Board of Directors includes leading companies in Oman.

Injaz started its programme in Oman in May 2005 with a pilot master class. The programme was launched in February 2006 in collaboration with Injaz Al-Arab and

the SANAD Programme. Initially, three schools were beneficiaries of the programme: two public, and one private. A total of 212 students were enrolled, and two programmes were implemented via “My Economy” and “How to be a Successful Leader”. Later in 2006-2007, the Injaz Oman programme was expanded to 14 schools, in Muscat and other regions, with fifty classrooms and over 2,450 students. In 2007-2008, Sultan Qaboos University and the Higher College of Technology became involved in the Programme. Injaz Oman relies on volunteers and involves them in all stages of the programme. Each volunteer is assigned a class in one of the schools. Every volunteer commits to 1 hour per week for an average of 10 weeks during an academic semester. This is preceded by an orientation training workshop. At the end of the course, the volunteer graduates his/her students.

Omani schools participated in the Injaz “Best Arab Student Company 2007” competition in Jordan. In May 2008, Injaz Al-Arab hosted “Best Student Company” in Muscat when 10 countries were represented by 66 students, and where an Omani student was awarded “Best Student CEO”. In June 2009, an Omani school participated in the Injaz Al-Arab competition in Beirut where Oman once again won the “Best Student CEO” award as well as “Best Company Project”.

Recently, Injaz Oman linked up with the National Career Guidance Center (NCGC), which gave Injaz access to over 240,000 students and over 4,000 classrooms. Currently Injaz Oman is preparing to include students age 13 and under, which will increase the number of students to over 500,000 per semester.

At the International Level

Implementing KAB in the Vocational Training Centers and Colleges of Technology

Know About Business (KAB) is being implemented in vocational training centers and colleges of technology. KAB is a package being offered under the aegis of ILO to empower the young to acquire skills that will help them earn a livelihood. The main focus of KAB is the training of entrepreneurs in management skills for developing an entrepreneurial attitude through entrepreneurship education. It is being implemented in Oman as well as in many other countries. The KAB programme seeks to develop the entrepreneurial skills of young people, and in the process, educate them not only to establish their own businesses at some time in the future, but also to work

productively in small and medium enterprises (SMEs). In so doing, the overall objective of KAB is to contribute towards the creation of an enterprise culture in a country or society.

The KAB programme is successfully being implemented in vocational training centers and the colleges of technology. It is offered to students before they venture out into the job market.¹⁸ The programme includes training the teachers using specialized modules developed by the ILO for this purpose.

The implementation of KAB in Oman required customizing it so that it is delivered in a way that was easy to be integrated within other programmes. KAB is delivered in Arabic in vocational training centers and in English in the colleges of technology. In the colleges of technology, the implementation followed a systematic approach. First, the curriculum was divided into two parts, namely KAB1 and KAB2. After consideration and discussion between the colleges, it was decided to offer the KAB programme during the Enhancement Practical Training (EPT).

Interviews with teachers and students elucidate that KAB does not necessarily encourage young people to begin their careers as entrepreneurs or self employed workers. Rather, it gives them practical experience and an awareness of opportunities, challenges, procedures, characteristics, attitudes and skills needed for entrepreneurship. This makes it an interesting programme for all students, whether they plan to start their own business or seek a job. The programme is learner centered and consists of training and project games. What made it attractive to students is that it uses the latest techniques in teaching, training and learning, where the learner sets the learning objectives, works towards achieving them and also sets and follows the rules for the training. The programme promotes self expression and communication and also focuses on teamwork and taking up responsibility.

¹⁸ Nizwa College of Technology (2009). Know About Business (KAB) Delivery Plan. Business Studies Department. Directorate general of Technological Education. Ministry of Manpower, Sultanate of Oman.

3.4 Conclusions and Recommendations

Conclusions

This report aimed at presenting a case study about entrepreneurship education in the education system in Oman. The report shows that the educational system in Oman is focused around entrepreneurial spirit, and that major efforts have been made to reform the education system, improve curriculum development, and launch new initiatives.

Several lessons and good practices can be learned from the Omani experience. Reform of the school system into basic and post-basic education has resulted in a balanced mix of initiatives that promote entrepreneurship in education. This included the gradual decentralization of school management, which led to a change in the mindset of school administrators who became more open to supporting a stronger entrepreneurial focus in education. In addition, new school curricula consist of a balanced mix of subjects and topics that enhance entrepreneurial skills in an integrated way. For example, linking mathematical applications to the local economy in the applied mathematics course for the 11th grade is a very effective way of incorporating entrepreneurship within the subject. Also, subjects and topics like “Life Skills” and “Your Career Path” cover many areas that support entrepreneurial thinking. The National Career Guidance Centre (NCGC) is another success story which has helped to create more entrepreneurial thinking within schools, providing students with many planning strategies as well as problem-solving and decision-making skills.

Vocational training and technical education have also seen several developments that support EPE. Introducing a third year/level in vocational training centres in addition to making the system more open by allowing students to graduate after completing any level and coming back to continue later on have changed the way students plan their future and reduced the risks they take by deciding to start their own business as they can rejoin the study programme. Also, incorporating entrepreneurial skills within subjects like mathematics and information technology creates yet another dimension of EPE. Colleges of technology have also adopted many successful initiatives. Changing the way on-the-job training is delivered and introducing the enhancement practical training changed how students looked at work. Compulsory OJT and EPT

with planned outcomes and deliverables make it more business oriented. Also, adding subjects like entrepreneurship, job search techniques, formal logic, business ethics and formal Arabic communication has shown to be another effective way of integrating entrepreneurship issues within education. The business simulation center is a unique initiative that supports entrepreneurship. Also, participation in GCC Skills and World Skills competitions creates more incentive for future entrepreneurs.

Several other initiatives that show additional efforts towards EPE have also been implemented. These include the Career Awareness Programme in Collaboration with Shell Oil Company, the SANAD Incubator Programme, Injaz Oman, and KAB. All these are programmes that have been implemented in schools, vocational training centers and colleges of technology.

Although this report reveals several good practices which have been summarised above, it is evident that there is still scope for further improvement in several areas. Recommendations are offered at national and regional level as follows.

Recommendations

▪ At the National Level

The developments required at the national level to better integrate entrepreneurship education into the education system include but are not limited to the following:

Legislation to support EPE

Although several entrepreneurship skills have been seriously considered in the legislation and development of the curricula of schools and TVET, it is important to emphasize that just mentioning some of these skills in the legislation are not enough. The establishment of clearly defined legislation in this regard would further promote entrepreneurship education and will ensure its continuity.

Assessment of Impact of the Integrating Entrepreneurship in Education

Although several improvements are evident in promoting entrepreneurship skills within the education system, especially curriculum development, the impact of such

changes has not been assessed to identify how they have helped in molding a generation that is well rounded for the job market and future life. This may be due to the infancy of the new initiatives and hence the difficulty in assessing their impact. Also, the impact of implementing some external programmes such as Injaz and KAB need to be assessed. This is an area that needs to be addressed in the near future.

Teacher Education and Training

One of the most immediate actions required is the development of comprehensive teacher education and training programmes that help improve the entrepreneurial skills of teachers and enable them to transfer them to students. The importance of teachers should not be underestimated, and teacher education and training should be a central area around which all other developments are designed. This needs to be addressed at both the pre-service and the in-service levels.

Research on Entrepreneurship Education

Entrepreneurship education is a relatively new initiative and literature shows very few researches in Oman and the Arab countries in general addressing entrepreneurship and entrepreneurship education. It is recommended that more research is conducted in this area. This will not only help to stimulate new ideas but will also help in creating more awareness about the importance of EPE countrywide.

Collaboration and Information Sharing

Collaboration and information sharing among all authorities concerned will help in better practices and further integration of the different education levels. It may be beneficial at this stage to form an “*Entrepreneurship Education Network*” that participates in the promotion of EPE by sharing good practices, success stories and conducting awareness activities among other things.

- **At the Regional Level**

Development of an EPE-Arab Portal

Information and knowledge sharing is crucial. Therefore, developing an EPE-Arab portal would support more collaboration among the different countries in the region. This would also encourage the sharing of success stories and help attract the attention of the community. The portal could also stimulate more collaborative projects between interested individuals, institutes and countries.

Conference and Accompanying Workshops

Conferences and workshops are some of the most effective ways of sharing ideas about research outcomes and innovations. They also help in creating links between researchers and others. Therefore, a regional conference about entrepreneurship education could stimulate more information sharing and lead to collaborative projects.

4. Case Study on Egypt, Dr. Aboubakr A. Badawi

4.1 Introduction.....	84
4.2 Entrepreneurial Education and Training at the Policy-level.....	92
4.3 Promotion of Entrepreneurship in the Education and Training System	100
4.4 Implementation and Technical Support.....	109
4.5 Examples of EPE in Egypt.....	112
4.6 Conclusions and Recommendations	114

4.1 Introduction

In 1974, Egypt embarked on a wide economic restructuring reform ending decades of public sector domination. Introducing necessary changes was not easy and took much longer than anticipated. In fact it is still ongoing. One major area of the reform focused on reviving the entrepreneurial spirit and promoting the establishment and development of small and medium enterprises (SMEs). Through the years, the concept of entrepreneurship developed, and so did related activities. In line with the prevailing concept of entrepreneurial education during the past decades, the focus was on promoting, establishing and developing small enterprises. Recent development of the concept to become a basic skill for all citizens necessitates re-examining current practices and adopting the new concept of entrepreneurship education (EPE).

The current report contributes to an EPE study organized by UNESCO and funded by the StratREAL Foundation, UK, implemented by the UNESCO-UNEVOC International Centre in Bonn, Germany, in collaboration with the UNESCO office in Beirut and coordinated by the National Centre for HRD-Jordan.

*"The results of this study will be an important input for countries that aim to develop strategic plans for the incorporation of entrepreneurship education into their educational systems. They will also inform criteria to select countries for component II of the project."*¹⁹

As agreed among the regional research team, the report is limited to formal education at basic and secondary levels, including TVET, unless something else is relevant to the contents of the report.

Education and training in all regions and countries are nowadays witnessing a continuous process of reform and adaptation to developments in society, technology and labour markets. Literature has been already flooded with research on the "21st Century Skills" required by the "Knowledge Economy". Most of these skills are related to "Knowledge Management", which includes processes related to

¹⁹ UNESCO–Beirut (2009). Entrepreneurship Education in the Arab States: (Component I: Information Note)

“Governments should make an effort to properly identify and conceptualise the set of skills and competencies required as to incorporate them into the educational standards that every student should be able to reach by the end of compulsory schooling. Systems of education are facing risks of being irrelevant unless this set of skills and competencies becomes the very core of what teachers and schools should care about, and this can only be done by incorporating them into the national education standards that are enforced and assessed by governments.”²⁰

Education should encompass both academic knowledge and practical skills to prepare young people for responsible citizenship and the world of work.

The Global Education Initiative (GEI) of the World Economic Forum (WEF) issued a report entitled "Educating the Next Wave of Entrepreneurs" (in April 2009) explaining the need for EPE:

"Educational institutions at all levels (primary, secondary, higher, vocational) need to adopt 21st century methods and tools, including cross-disciplinary approaches and interactive teaching methods, to encourage creativity, innovation, critical thinking, opportunity recognition and social awareness. This requires a fundamental rethinking of the educational process. Academia should embed entrepreneurship not only into the curriculum, but also into the institutional paradigm. Goals, policies, outcomes, structures and rewards should encourage the educational approaches necessary for current and future generations of students. Policy-makers and governments should develop ambitious plans for entrepreneurship education at the national and regional levels. The private sector should engage with government and academia to help transform the educational system.”²¹

4.1.1 Methodology

An analytical approach has been utilized in preparing the current report, in coordination with the National Commission of UNESCO in Egypt (NATCOM). Data

²⁰ New Millennium Learners (2009). "First International Conference: 21st Century Skills", Brussels, 21-23 September 2009.

²¹ See: www.weforum.org

was collected through an extensive review of related documents as well as open interviews with a number of current and retired staff of the Ministry of Education, Ministry of Higher Education, the Social Fund for Development, the ILO Sub-regional Office in Cairo and academics. The draft report was subject to consultation with the National Commission for UNESCO and selected experts in Egypt (especially those interviewed during preparation of the case study).

4.1.2 The Concept (Definitions)

With recent developments in the concept of entrepreneurship education (EPE), it may be necessary to start the report with a quick review of the main definitions and adopting an operational definition on which the report will be based. In what follows, four main definitions are listed:

UNESCO: *"Fostering entrepreneurship attitudes and skills in secondary schools raises awareness of career opportunities, as well as of ways young people can contribute to the development and prosperity of their communities. It helps reduce youth vulnerability, social marginalization and poverty."*²²

The Internet portal TVETipedia offers a good distinction between EPE and management education: *"What makes entrepreneurship education distinctive from for example management education, is its focus on realization of opportunity, where management education is focused on the best way to operate existing hierarchies. Both approaches share an interest in achieving "profit" in some form (which in non-profit organizations or government can take the form of increased services or decreased cost or increased responsiveness to the customer/citizen/client)."*²³

ILO: "Entrepreneurship education is increasingly being recognized as an important element in the broader efforts to tackle the global youth employment challenge. National labour markets' capacity to absorb the increasing numbers of new and young entrants, as well as provide decent and productive employment opportunities, is far

²² See: www.unesco.org/en/secondary-education/entrepreneurship-education/

²³ See: www.tvetipedia.org

from sufficient. New strategies, which include an increased focus on entrepreneurship, are needed to better prepare youth for the transition from school to work.²⁴

Entrepreneurial Education Forum: *"Entrepreneurship is an employment strategy that can lead to economic self-sufficiency. Through **entrepreneurship education**, young people, learn organizational skills, including time management, leadership development and interpersonal skills, all of which are highly transferable skills sought by employers."*²⁵

Joint ILO/UNESCO Definition: *"Entrepreneurship education is conceived in a broad sense, as a pedagogic approach to fostering self-esteem and self-confidence by stimulating and nurturing the talents and creativity of the individual, while building the relevant skills and values that will assist learners in expanding their perspectives on schooling and opportunities beyond. Methodologies are based on the use of personal, behavioural, motivational, attitudinal and career planning activities."*²⁶

The current report adopts the joint ILO-UNESCO definition. It should be remembered that although the definition starts relatively broadly (fostering self-esteem and self-confidence), it turns to identify the thrust of the definition (on schooling and opportunities beyond). A 2008 UNESCO Inter-regional Seminar²⁷ made an important distinction between prevailing definitions in developed and developing countries: *"EPE in developed countries is creativity, innovation and thinking outside the box; in developing countries it is a way to develop positive attitude towards entrepreneurship and self-employment."* This distinction will also guide the current case study.

4.1.3 Education and Training Enrollment and Challenges to Introduce EPE

Formal education as the main component of the education system in Egypt comprises four main stages. Firstly, two years *preschool education* that is not yet compulsory

²⁴ Jens Dyring Christensen and Thais Lucas de Rezende (2009). Boosting Employment through Small Enterprise Development. ILO, Geneva.

²⁵ See www.entre-ed.org/network/Forum

²⁶ UNESCO-ILO (2006). *Towards an Entrepreneurial Culture for the Twenty-first Century. Stimulating Entrepreneurial Spirit through Entrepreneurship Education in Secondary Schools.* Paris:UNESCO.

²⁷ UNESCO Inter-Regional Seminar on Promoting Entrepreneurship Education in Secondary Schools" Bangkok, Thailand, 11-15 February 2008

but very much encouraged and promoted by the government. Secondly, *basic education* (compulsory) for nine years divided in two sub-stages (6 years primary and 3 preparatory), with a tiny component of vocational schooling (grades 7-9) to cater for students who would not otherwise complete the general education track (until 9th grade). Thirdly, *secondary education* (both general and technical tracks) for three years, with some TVET schools being 5 years. Last but not least, *post-secondary education* in a wide range of institutes, technology colleges, higher institutes and universities (both governmental and private). A good number of Ministries and public bodies are offering education programmes leading to a certificate (diploma) that is legally equivalent to the secondary school certificate. Non-formal and informal education programmes are also sizable and diversified.

Adopting the joint ILO-UNESCO definition of EPE means that EPE would become a part of the national educational system. Some of the major challenges facing the Egyptian educational system would also be faced by attempts to implement the new EPE trend. The *size factor* is a major challenge, with more than 15.443 million students being enrolled in pre-university education while another 2.540 million are already enrolled in post-secondary education. A second challenge is the vast area of the country, with amounts to 1.01 million square kilometers and creates *disparities between urban, rural and remote areas*. The Ministry of Education refers to discrepancies in education:

*"One of the challenges in education, primary in particular, is the wide gap and disparities between rural and urban areas as well as between boys and girls especially in the Governorates of Upper Egypt. Discrepancies also exist between the middle and above-middle income families and the poor families where young girls and boys are expected to leave school very early to contribute to the income of the family through child labour."*²⁸

EPE faces the similar discrepancies. A third challenge is *quality of education*, in particular in rural and remote areas of the country. With about *17 million illiterates*, Egypt must consider practical methodologies to allow for entrepreneurial skills acquisition for this sizable portion of the population. Table (1) presents some educational statistics that reflect challenges to introducing EPE.

²⁸ National Center for Educational Research and Development (NCERD) (2009). Mid-term EFA Evaluation (2000-2007), a report requested by UNESCO. Cairo, Egypt, p.45.

Table 1: Egypt's Population, Education and Employment Highlights

Indicator	Total	Females	Males	Remarks
Population	76.800	37.555	38.445	
Total Area (Square Kilometers)	1.01 million			
Number of Pre-university students (2006)	15.443,508	7.805,890	7.965,374	
Number of post secondary students in Governmental Institutes and Universities (2005/06)	2.153,865	Not included in the Report	Not included in the Report	
Number of post secondary students in Private Institutes and Universities (2005/06)	387,696	Not included in the Report	Not included in the Report	
% Enrollment, Post-secondary	29.2	27.7	Not included in the Report	
Literacy Rate (15 – 24 years)	85	79	90	
Illiteracy Rate 10+	29.33	40.6	17	17 million illiterate
Number of Illiterates 15- 24	3.286,000	2.004,460	Not included in the Report	(61%) are females
Indicator	Total	Females	Males	Remarks
2006/07 % Enrollment, Primary	92.5/ 83.6	94.3/ 84.6	90.9/ 82.6	Absolute/ Net
2005/06 % Enrollment, Preparatory	92.2	100.1	Not included in the Report	
2005/06 % Basic Education Graduates moving to secondary	88.9	Not included in the Report	Not included in the Report	
% Enrollment, all Secondary	77.2	73.1	Not included in the Report	
% Enrollment, General Secondary	40.9	Not included in the Report	Not included in the Report	
% enrollment, Technical Secondary	59.1	Not included in the Report	Not included in the Report	
% Enrolled in Secondary to Age group	29.2	27.7	Not included in the Report	
% Enrollment, Post-Secondary of Secondary graduates	79.6	Not included in the Report	Not included in the Report	

Sources: MOE (2007), "Education for All: A Mid-Term Assessment (2000-2007)"

Developing/reforming education in Egypt has been a continuous process since the "Temple School" preparing priests of the ancient Egyptians few thousand years ago till today. Among, but not limited to, the most recent developments are three main initiatives namely, 1) the Higher Education Strategy of 2000, 2) the National Strategic Plan to Reform Pre-University Education 2007-08/ 2011-12, and 3) the anticipated reform of secondary education and university admission that came from a May 2008 national conference, called and inaugurated by the President of the country, including 10 specific areas/projects of reform.²⁹

²⁹ The new system is planned to apply for those who would enroll in the secondary general and technical education in the school year 2011-12

4.1.4 Social and Cultural Issues Related to EPE

Education influences and is influenced by social and cultural factors aiming at encompassing both academic knowledge and practical skills to prepare young people for responsible citizenship and the world of work. The author believes that introducing EPE without proper consideration to related core social and economic issues wouldn't be effective or successful. In this section, a brief summary is presented.

Following decades of central planning and domination of public sector and para-state enterprises, the prevailing culture became that of working for the less demanding and secure public sector, which included social insurance coverage. Social and economic policies during that era made the government responsible for placing every graduate of secondary schools or above into employment either in the civil service or the public sector enterprises. Controlling prices and exchange rates to minimize inflation necessitated subsidizing public sector companies and the relationship between cost and price became irrational. Subsidizing exports to build an international reputation of Egypt as an industrial country was also a policy. The fight against the notion of Egypt as an agriculture-based economy resulted in a general trend of youth to neglect agricultural work and migrate internally from rural to urban areas. The ratio of agriculture in the national income declined, and Egypt became one of the countries importing a good percentage of their food, mainly wheat, rice, corn, sugar and cooking oil. These policies impacted negatively on the entrepreneurial spirit of youth during these decades.

Big public sector firms did not leave much room for SMEs. Those giant companies did not only focus on industry but also dominated the grocery and fast food sectors, and almost all economic activities. Their management mentality became that of building their own islands and producing whatever they considered marketable and in many cases their own maintenance and repair needs. In the absence of a meaningful cost-price relationship and the availability of subsidies by the government, these companies became a social refuge for new graduates rather than productive units in the national economy. With very high over-staffing to ensure employment for increasing cohorts of youth, accountability disappeared and the entrepreneurial spirit faded. Civil service and the public sector became the only "acceptable" form of

employment, and those working in the remains of the old private sector or in self-employment /micro enterprises used to report themselves as unemployed, waiting for a less demanding secured "public" employment opportunity.

Current attempts to re-align the economy with free market and open economy rules started more than thirty years ago and are moving slowly to avoid possible social unrest. One of the main foci is on abolishing automatic employment of graduates in the civil service and public sector, as well as privatizing the latter. In parallel, promotion of SME establishment and development aims at encouraging youth to consider this as a viable option for their future career. With economic restructuring, a considerable percentage of workers in privatized companies were encouraged to get early retirement, while employment opportunities for the newcomers in the labour market became slim. Youth, and in particular women became the first victims of the change with youth unemployment rates ranging between 18 and 30%. Entrepreneurship is promoted to mitigate high youth unemployment rates and is defined in connection with establishing or developing SMEs. The campaign attracted a good number of youth; most of them lacking basic personal entrepreneurial traits, which resulted in a high percentage of failures. The informal economy mushroomed and migration for work to other Arab and Mediterranean countries became popular among Egyptian youth.

It has been widely believed that the aforementioned decades of public sector domination destroyed the entrepreneurial spirit within the young generations in Egypt. Studies on countries like Vietnam found that

*"Exploring cultural impacts on the private entrepreneurship in the post-Doi Moi Vietnam revealed that some important aspects of the traditional cultural values continue to have strong impacts on the Vietnamese society, and to a large extent to adversely affect the entrepreneurial spirit of the community."*³⁰

But according to the 2008 report of the Global Entrepreneurship Monitor (GEM), the case of Egypt seems to be different,

³⁰Quan-Hoang Vuong and Tran Tri Dung, "The Cultural Dimensions of the Vietnamese Private Entrepreneurship", in NEP: New Economics Papers Entrepreneurship (2009), Edited by Marcus Dejardin, Notre-Dame de la Paix University, 07.11.2009.

*"The Egyptian population has a relatively positive attitude towards entrepreneurship. It ranks 12th among the 43 countries in the percentage of the adult population that considers entrepreneurship as a desirable career choice (73%). This reflects a favourable mindset towards entrepreneurship which may lead to ultimate engagement in entrepreneurial activity. A relatively high percentage of the population is also confident that they have the required knowledge and skills to start a business; 53% were definite that they have these skills, ranking Egypt in 14th place. However, only 40% of the surveyed population confirmed that they see good opportunities for starting a business in the next 6 months (surveys completed in July-August of 2008), ranking Egypt 27th among the 43 countries."*³¹

Today, the percentage of those who opt to establish SMEs is on the rise. The GEM report of Egypt in 2008 reports

*"In the summer of 2008, 13.1% of adults in Egypt (18-64 years old) were either actively trying to start a new business (7.9%) or already owned and managed a business that was less than three and half years old (5.5%). This indicator is referred to as the Total Entrepreneurial Activity (TEA) rate. On this indicator, Egypt ranked 11th among the 43 countries covered by the report."*³²

Although the new concept of EPE is not only concerned with preparing individuals to establish and manage SME but consider entrepreneurship as a basic skill for all, current practices in almost all countries in different regions of the globe do include establishing SMEs as one of the objectives of EPE, but do not limit it to that objective. In this regard, Egypt is no exception.

4.2 Entrepreneurial Education and Training at the Policy Level

Entrepreneurial education and training is not a new term, but the concept behind the term has been recently developed into a more generic one. Educational literature and research used to differentiate between three main objectives of *entrepreneurial education*, namely: raising all individuals' awareness of establishing SMEs as a viable option for their career; assisting those who already consider that option with specific competencies (knowledge and skills) to explore and pursue specific business ideas;

³¹ Hala Hattab (2008). Egyptian Global Entrepreneurship Report 2008. Department of Business Administration. El Sherouk: British University in Egypt, www.gemconsortium.org/national_reports.aspx, Retrieved on 17 November 2009, p.41.

³² Hala Hattab (2008), *ibid*, p.ix,

and helping those who decide to start their small enterprise in acquiring necessary entrepreneurial and managerial competencies. A well known application of this classification is the training package developed by the International Labour Organization (ILO), which includes three consecutive programmes (KAB, SYB and SIYB).³³ The new EPE concept is integrating all these objectives and goes even beyond them. In this section, the paper will explore the extent to which current policies and activities relate to the new concept, in spite of the fact that these policies and activities were developed and are implemented within the "classic" concept of entrepreneurial education as preparation for a career in entrepreneurship.

The adopted definition of EPE includes "fostering self-esteem and self-confidence by stimulating and nurturing the talents and creativity of the individual". Further explanation³⁴ states that "EPE is about creating an entrepreneurial mindset/culture that fosters innovation, problem solving and active citizenship". The UNESCO note goes further to identify the EPE objective "to assist young people become innovators and active participants in the labour market". It goes without saying that these explanations and objectives have been a part of many previous education development initiatives and that 50 (or more) year-old education policies and practices do refer to these broad issues. The UNESCO National Education Support Strategy for Egypt³⁵ includes much about the aforementioned objectives, while the document does not include a single reference to entrepreneurship or entrepreneurial education. This is also the case for the National Strategic Plan to Develop Pre-university Education in Egypt. This paper will avoid being trapped in attempting to link everything to EPE. On the contrary, only policies and activities that naturally lend themselves to the new EPE concept will be presented (including entrepreneurial education as preparation for entrepreneurship).

Through the last three decades or so, the educational system in Egypt positively and actively responded to international trends in education. Among the main policy and implementation responses are:

- Introducing practical subjects in basic education in the 1970s;

³³ Some details are presented in section 4.3 of this report

³⁴ See: UNESCO Information Note, August 2009

³⁵ UNESCO (2008). UNESCO National Education Support Strategy (UNESS): Republic of Egypt. UNESCO-Cairo Office, Egypt.

- Outreach programme;
- Utilizing ICT in developing education;
- Distance-teacher development;
- Broad band schools;
- Smart schools;
- School-based reform;
- Effective school project;
- Enhancing active learning project;
- Establishing a Professional Training Academy for teachers;
- Establishing the National Authority for Quality and Accreditation in Education; and
- Developing school curricula to integrate 21 concepts related to citizenship, human rights, environment, gender equality and many others.

All these initiatives would be easily linked to EPE, but as stated earlier the case study will only focus on core issues related to EPE. In the remaining part of this section, the focus will be on efforts related to EPE in its classic form (preparation for entrepreneurship), which is still a part of the new concept.

Studies show that EPE is important because it influences not only the level of entrepreneurial activity but also the quality of businesses started.

*"Of the non-entrepreneurially-active population in Egypt, adults who had never received any start-up training were much less likely than those who had to believe that they had the skills, knowledge and experience to start a business (51% for the former group compared to 75% for the latter group), especially if that training was compulsory Information collected through the current report show that entrepreneurial education in Egypt is one of the weakest links in promoting entrepreneurship, if not the weakest."*³⁶

So if EPE is to be implemented in Egypt, a lot needs to be done. This is also confirmed by the GEM report which compared 34 countries. The report concluded that

"Egypt has the second lowest rate for the percentage of the population that has received any exposure to entrepreneurship in the education and training system. Only 7.5% of Egyptians

³⁶ Hala Hattab (2008). Egyptian Global Entrepreneurship Report 2008. Department of Business Administration. El Sherouk: British University in Egypt, www.gemconsortium.org/national_reports.aspx, Retrieved on 17 November 2009.

*reported ever having taken any courses on starting a business as part of school-based activity, or participating in related training after leaving the formal education system."*³⁷

It is also important to keep in mind that studies show that it is not only entrepreneurial education that matters, but that the average schooling and educational level of the population also influences entrepreneurial activity rates:

*"Total Entrepreneurial Activity (TEA) rates in the population generally rise with the level of education. So countries with large cohorts of highly-educated people may have an "entrepreneurial" advantage. Although Egypt basically follows the pattern of GEM countries—TEA rates are highest among adults with post-secondary education or higher—unfortunately, the average education level in Egypt is relatively low, so the better educated people with higher TEA rates are in the minority. GEM studies have also found that entrepreneurs with higher levels of education are more likely to be innovative and growth-oriented. The major implication of this result is that the low level of education of Egyptians generally is a barrier to growth of the entrepreneurial population. In the medium-term, Egypt must continue to raise the average education level of the population. In the short- and medium-term, efforts should be made to reform the education approach to foster creativity, self-sufficiency, personal initiative, and independent thinking, as well as to integrate entrepreneurship-related content into teaching materials and classrooms at all levels of the education system."*³⁸

An important OECD report also rings a bell for appropriate action on EPE, not only for Egypt but also other Mediterranean countries:

*"While education and training are increasingly recognized as key contributors to competitiveness in all MED countries, learning systems generally lack the policy thrust required to ensure strategic inputs into an entrepreneurial economy. The objective of Dimension 2 is to encourage those countries participating in the Charter to develop and promote entrepreneurial learning, in a lifelong learning perspective, as a central pillar in the wider effort to promote competitive economies. Entrepreneurial learning refers to all forms of education and training (both formal and non-formal), including work-based learning, which contribute to entrepreneurial spirit and activity, business creation and employability development."*³⁹

³⁷ Hala Hattab (2008), *ibid*, pp xi-xii

³⁸ Hala Hattab (2008), *ibid*, p xiii

³⁹ OECD-EU, p.17

4.2.1 Policy

Most educational policies in Egypt have been developed very recently, but before the new concept of EPE became internationally recognized. Meanwhile, Egypt is already cooperating with the OECD and the European Union in promoting SME development and related EPE. A recent assessment by the OCED and the EU of the enterprise charter with Mediterranean countries found that⁴⁰ "turning to the human capital dimensions of the Charter, the assessment focused on Egypt's efforts to promote entrepreneurship education and training (Dimension 2) as well as enterprise training activities (Dimension 3), both considered key to promotion of a more entrepreneurial and skills-effective enterprise environment". The following two paragraphs present some specific results of that assessment as related to EPE.

Firstly, the assessment explored the policy context for more developed entrepreneurship education across all levels of education. While some national strategies individually contribute to entrepreneurial learning (e.g. a youth employment strategy that favours self-employment), the Charter objective of a coherent strategic framework for lifelong entrepreneurship education and training requires more discussion with key stakeholders. Of importance here will be how the contents of existing policies interface, including how the formal education system and the non-formal education environment can be improved and recognized. More specifically, the national education strategy still misses specific acknowledgement of entrepreneurship as a key competence. This will be important for progress on the secondary education indicators (ISCED 2 and 3).

The policy position on employment and vocational training addresses only occupational skills. An entrepreneurship dimension could reinforce its objectives and potential. Further, interviews with high-ranking officials of the Ministry of Higher Education confirmed particular interest in developing 'across-campus' entrepreneurial learning to build on existing efforts to foster entrepreneurship in technology and engineering faculties. This provides a good opportunity to ensure that the upper levels of the learning system (ISCED 5 and 6) are engaged in broader lifelong

⁴⁰ European Commission, OECD and ETF (2008). Report on the implementation of the Euro-Mediterranean Charter for Enterprise. 2008 enterprise policy assessment. Luxembourg: European Commission.

entrepreneurial learning. Given that the policy indicator is a driver for the remaining indicators Dimension 2, the Egyptian authorities could consider an open discussion on how the various parts of the learning system (including enterprise) could cooperate with a view to creating a sequential or lifelong entrepreneurial learning framework. Given its nodal position, the Education, Training and Employment Observatory could lead this dialogue, but the leadership and support of both Education Ministries will be critical. The process would be significantly reinforced with the strategic engagement of the National Competitiveness Council (already pushing for a better contribution of the learning system to Egypt's competitiveness drive). However, the Ministry of Education is pivotal to all systemic developments in entrepreneurial learning: it must engage with and be engaged by the other key stakeholders.

4.2.2 Legislation and Regulations

In Egypt, planning to promote entrepreneurship started in the 1970s with the economic restructuring that followed the positive outcomes of the 1973 war. With international technical assistance, these efforts intensified during the late 1980s, 1990s and till the present. 2004 was a landmark in the process, when special small enterprise legislation was approved by the People's Assembly and issued by the President⁴¹. Article (2) of the Law reads (personal translation from Arabic by the author of this report):

"The Social Fund for Development is the body mandated (specialized) to work on developing small and micro-enterprises, and planning, coordinating and promoting its expansion, and assisting in its financing and other services, in cooperation with ministries and their agencies public authorities – local governments and other bodies, the bylaws specify the Fund's working system to undertake these responsibilities."

The Executive Regulations of article II of that law, issued by the Prime Minister's decree 1241 of 2004, spell out the responsibilities of the Social Fund for Development (SFD) with regards to seven particular competencies, the 7th of which reads "establishing training centres to qualify enterprise owners or to prepare those who desire to set up enterprises through providing them with the necessary basic skills

⁴¹ Law No. 141 of 2004, for Promulgating the Law on the Development of Small Enterprises,

required for the sound management of such enterprises" 42 EPE seems to be understood by the law as training entrepreneurs. Responsibility for promoting entrepreneurship and providing training for it is shared by a number of Ministries; figure (1) presents the institutional set-up:

Figure 1: Entrepreneurship Institutional set-up in Egypt

Institutional set-up in Egypt

Ministry	Institution/unit	Enterprise policy priority	Strategy	Main activities
Interministerial	Social Fund for Development (SFD) established in 1991	Micro- and small enterprises (MSEs)	National strategy for MSEs' development: 2008–12 National strategy for microfinance	Provision of financial and business support services Facilitation of administrative procedures
Ministry of Trade and Industry	Industrial Development Authority (IDA) established in 2005 Industrial Modernisation Centre	Industrial companies	Industrial development strategy: 2005–25	Expanding export and upgrading quality in seven existing sectors Investing in technology and skills upgrading ⁽⁴⁰⁾ in six areas of niche development Allocating and equipping areas for industrial activities
Ministry of Investment	GAFI	Medium and large enterprises	n.a.	Facilitating investment procedures, particularly for medium- to large-scale business enterprises, assisting investors and promoting Egyptian investment opportunities
Ministry of Finance	SME Development Unit	SMEs	Errada, comprehensive tax reform	Simplifying all legal and administrative procedures

Source: EUROPEAN COMMUNITIES/OECD (2008).

Governorates and local governments, concerned Ministries and several other main actors issued necessary "regulations" to promote, support and provide financing to entrepreneurs. A good number of Ministerial and Governor's decrees are in effect, including many dealing with the relationship with NGOs and other elements of society. The secretary general of the SFD also issued a number of decrees organizing;

⁴² Egyptian Prime Minister Decree No. 1241 of 2004 (2004). Executive Regulations of the Law on the Development of Small Enterprises Promulgated by Law No. 141 Of 2004, 8 July 2004.

inter alia, entrepreneurial education and training. The SFD also adopted the "franchise" approach and established a special department to follow up its promotion. Franchisers have also stressed that training is necessary before their trade name can be granted.

4.2.3 Governance and Management

According to Law 141 of 2004 and its explanatory note, the Social Fund for Development (SFD)⁴³ is entrusted with the overall management of promoting small and micro project creation and development in Egypt, including training (Article no.2 of Law 141/ 2004). The SFD established a database of entrepreneurial training providers and cooperating NGOs. According to joint SFD-NGO agreements, some partners (including Misr Technological Faculty in 6th of October City) already started developing an entrepreneurial education programme for university-level students.

In practice, a quite large number of entrepreneurial education and training providers are working with minimum, if any, coordination or cooperation. A lot could be done to achieve better coordination that would in turn optimize the utilization of available resources, which are currently wasted in designing and implementing very similar training programmes. Utilization of training materials produced by international bodies (including ILO and UNESCO) and regional organizations (including ALO-ACHRD and the Arab Academy for Financial and Banking Sciences) is recommended to allow using available resources in training the trainers/teachers (currently considered a weak link in EPE).

Certification is not a major issue for many entrepreneurs (who are merely looking to acquire the necessary competencies) within the training programme. An accredited training programme may assist in improving the social image of its graduates. Involving universities, in offering accredited entrepreneurship education programmes in particular those capable of providing practical training rather than teaching solely pure academic theory may also attract future entrepreneurs and others interested in the topic and contribute to promoting EPE in Egypt.

⁴³ Established in 1991 as the National Social and Economic Safety Net for mitigating the impact of the economic reform policies.

4.2.4 Financing

Entrepreneurial education offered in the formal education system is financed through a number of schemes. Activities in public (governmental) schools are jointly financed by the Ministry of Education and initiatives supported by some donors. The Ministry covers the wages of teachers and the utilization of the school's facilities for training (including field visits); while the donor-funded initiatives usually provide the learning materials, train the teachers and assist in evaluation and certification. Private schools usually cover the entire cost of the entrepreneurial education they provide, although in some cases, the donor-assisted initiatives also train their teachers and/or provide the learning materials. A main initiative in formal education is the ILO "Know About Business (KAB)" programme, which is supported by the Canadian International Development Agency (CIDA).⁴⁴

Many NGOs, consultant firms and private for-profit training institutions also provide entrepreneurial education and training in which trainees pay a part, or all, of the cost. In some cases, public budget is utilized to pay for the participation of trainees in these programmes. Also, a certain percentage of some soft loans can be considered as "vouchers" to be utilized by the client for getting necessary training. The Social Fund for Development (SFD) financial support is usually linked to loan applicants.

4.3 Promotion of Entrepreneurship in the Education and Training System

Although the importance of entrepreneurial training has been recognized by all officials in the education sector and beyond and a sizable effort to establish EPE has already been ongoing for the last two decades the formal education curriculum at basic and secondary levels does not contain official content related to entrepreneurship education. This does not mean that students in public schools do not receive entrepreneurial education, but they receive it according to ad hoc arrangements and agreements between the Ministry and cooperating bodies such as the ILO and CIDA as mentioned in the practices section of this report (Section 5). Officials consulted during the preparation of this report (some of them are high-officials and decision makers) cite the ever increasing number of initiatives that do

⁴⁴ Further information on that initiative is provided under ch. 4.5 "Examples of EBE" section of this report.

not allow enough time and resources to implement them all properly. As examples they refer to Education for All (EFA), Education for Sustainable Development (ESD), Environmental Education (EE), and Civic Education. They rightly refer to the lengthy process of introducing changes in the curriculum, getting it approved by the concerned bodies, preparing learning materials and training of teachers and other concerned staff. The central system of education in Egypt, as in many other Arab and developing countries, makes it even harder to respond to this flow of accelerated changes.

In light of the above, the critical assessment of the current status of entrepreneurial education in Egypt by a group of Egyptian experts in the field who were consulted during the preparation of the 2008 Global Entrepreneurship Monitor (GEM) report seems normal:

*"Weaknesses in the education system with respect to entrepreneurship were reinforced by the national experts and reflected in Egypt's poor comparative standing relative to other GEM countries on the Education and Training EFC (last place). The education system in Egypt was assessed by national experts as being very weak in this area, at all levels of schooling, unlike the case in many other GEM countries where the government has made entrepreneurship education a priority."*⁴⁵

These conclusions are also supported by the sample of 18-64 years old citizens who replied to a questionnaire on whether or not they received entrepreneurial education during their schooling and after leaving school and whether the courses were compulsory or voluntary. Table (2) presents a summary of the replies.

⁴⁵ Hala Hattab (2008). Egyptian Global Entrepreneurship Report 2008. Department of Business Administration. El Sherouk: British University in Egypt, www.gemconsortium.org/national_reports.aspx, Retrieved on 17 November 2009,,p.xii.

Table 2: Percentage of 18-64 Population Received Entrepreneurial Education and Training during and after Schooling

Country	Education during School			Education after School			All EPE Training
	Voluntary	Compulsory	Total	Voluntary	Compulsory	T	
Brazil	4.5	0.8	5.3	1.6	5.0	6.6	9.4
Egypt	3.8	0.9	4.7	2.1	2.1	4.2	7.5
Italy	6.0	4.2	10.2	5.3	3.7	9.1	16.5
UK	5.8	3.1	8.9	7.7	6.1	13.8	19.5

Source: Excerptions of the table in "GEM-Egypt_2008 ", p.21.

By comparing Egypt's performance in Assessment of Entrepreneurial Framework Conditions (EFCs) shows that research and development are the weakest, followed by education then training. For both items, Egypt ranks last among the 31 countries included in the assessment. Table (3) presents a summary of the findings:

Table 3: Mean Score and Rank of Egypt on Entrepreneurial Framework Condition (of 31 countries)

No.	Condition	Egypt's Score	Egypt's Rank
1	Financial Support	2,27	21
2	Government Policies	2.71	11
3	Government Programmes	2.19	22
4	Education and Training	1.79	31
5	Research and Development	1.65	31
6	Commercial and Professional Services Infrastructure	2.68	25
7	Internal Market Openness:		
	- Internal market dynamics	3.57	4
	- Internal market burden	2.47	15
8	Physical Infrastructure	3.82	7
9	Cultural and Social Norms	2.40	22

Note: Mean scores are based on scale of 1 to 5 with one being the lowest score.

Source: GEM-Egypt 2008, p. 45.

Further analysis of the framework conditions affecting education and training were explored through eight survey statements addressed to a group of national experts. The surveys aimed at assessing the extent to which the educational and training

system encourages and supports entrepreneurial behaviour and management skills. Experts were asked to rate, on a 1-5 scale, the extent to which each of the following eight statements applies to Egypt:

- teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative;
- teaching in primary and secondary education provides adequate instruction in market economic principles;
- teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation;
- colleges and universities provide good and adequate preparation for starting up and growing new firms;
- the level of business and management education provide good and adequate preparation for starting up and growing new firms;
- the vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms;
- entrepreneurs in general need external assistance of their plans prior to start-up; and
- there are enough public and/or private centres or agencies that can provide persons with adequate education and training on entrepreneurship independently of the educational formal system.

Results of the Egyptian experts scoring are presented in table (4).

**Table 4: Egyptian Experts Rating of the Extent to Which Eight Statements
Are True for Egypt**

No.	Statement In my country (Egypt):	Score*
1	teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	1.28
2	teaching in primary and secondary education provides adequate instruction in market economic principles.	1.31
3	teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation.	1.36
4	colleges and universities provide good and adequate preparation for starting up and growing new firms.	1.47
5	the level of business and management education provide good and adequate preparation for starting up and growing new firms.	1.97
6	the vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms	2.00
7	entrepreneurs in general need external assistance of their plans prior to start-up	2.06
8	there are enough public and/or private centres or agencies that can provide persons with adequate education and training on entrepreneurship independently of the educational formal system	4.28

* On a 1-5 scale with 1 being the lowest score.
Source: GEM-Egypt 2008, p.52.

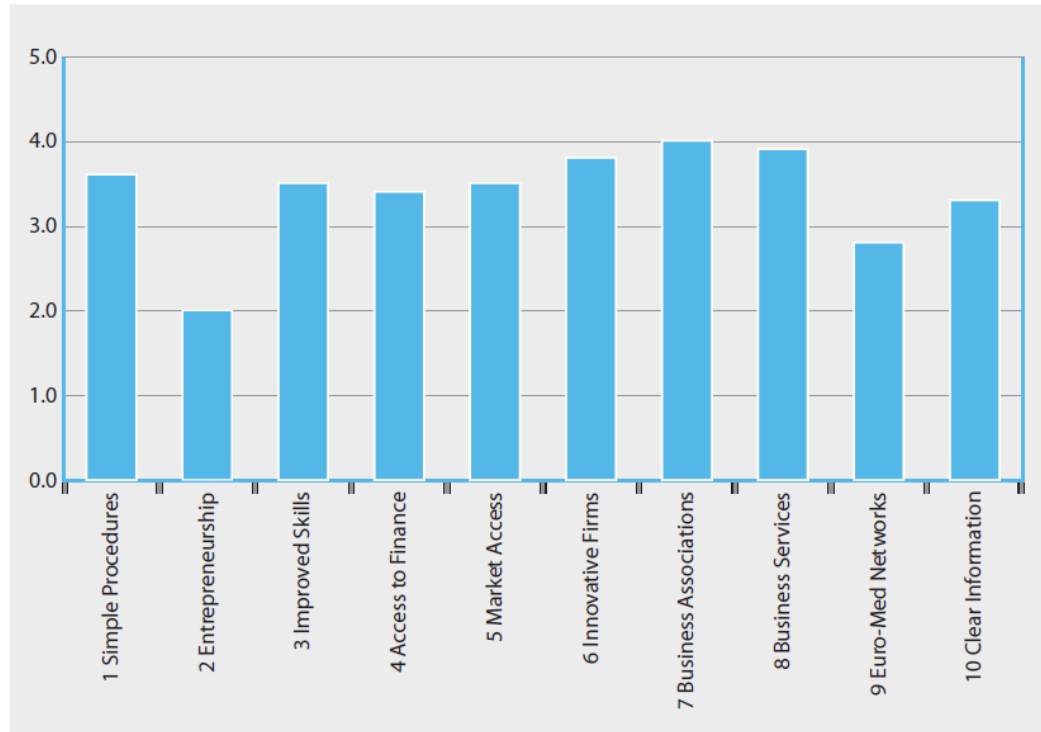
Regarding the above scores on the level of attention and inclusion of entrepreneurship in the education system, Egypt ranks last with a mean score of 1.3 (experts' perceptions of the extent of entrepreneurial education in primary and secondary schools) and about 1.8 (experts' perceptions of the adequacy of education and training support for new and growing firms). However, experts estimate that the capacity to provide necessary education and training is available independently of the formal educational system.

Similar results appear in the OECD-EU report on the Enterprise Charter implementation⁴⁶. Entrepreneurial education proved to be the weak link: "Egypt's performance reflects the significant progress made in developing a comprehensive enterprise policy approach across all 10 dimensions of the Charter with the exception of Dimension 2: Education and training for entrepreneurship".

⁴⁶ European Commission, OECD and ETF (2008). Report on the implementation of the Euro-Mediterranean Charter for Enterprise. 2008 enterprise policy assessment. Luxembourg: European Commission.

Figure 2: Egypt's Scores per the Euro-Mediterranean Enterprise Charter Dimensions

■ Egypt: Overall scores per Charter dimension



Source: OECD-EU 2008, p.96.

4.3.1 Formal Education

As discussed earlier, EPE is not only targeting those who want to explore the possibility of becoming entrepreneurs or those who already took such a decision. The broad definition adopted reinforces entrepreneurial skills as a part of the basic skills to be acquired by every individual. With this in mind, entrepreneurial education in formal education becomes a must. For those who still think that entrepreneurial education should only focus on graduates and not be a part of formal education, a look at the demography of new entrepreneurs in Egypt may be useful. The 2008 GEM report identified that the 25-34 age group has the highest entrepreneurial activity rates, true for all GEM countries. The age group with the second highest total entrepreneurship activity (TEA) rate in Egypt is the 18-24 year olds, which is not the case in most other GEM countries. So these two age groups are the most significant pool of potential entrepreneurs from which the majority of new enterprises and jobs will be created in coming years. Egypt, with its young population and young entrepreneurs, has a strong “entrepreneurial” advantage; meanwhile this fact shows

the importance of entrepreneurial education in basic, secondary and post-secondary education.

It is clear that Egypt should do more to include entrepreneurial education in the formal curricula: *"Considerable efforts should be made in Egypt to foster the development of entrepreneurial skills, ability, and know-how of young Egyptians. This should start early in the education system as part of the formal curriculum and extracurricular activities. Preparing them early will have an impact on developing entrepreneurial potential and on the quality of the enterprises eventually started. It should follow through with dedicated programmes to support young entrepreneurs in the start-up and early-stage growth process, such as exist in many other countries."*⁴⁷

4.3.2 Non-Formal Education

When examining the status of entrepreneurial education in Egypt, it would be easy to draw the conclusion that offering entrepreneurial education through non-formal education is the deliberate choice of the government. Although not supported by a formal policy or strategy document, mandating the SFD with the comprehensive responsibility of promoting SMEs led to a situation where the main thrust of entrepreneurial education programmes are implemented either in non-formal educational institutions (private and public) or as non-formal programmes. The main actor in this field is the SFD, which has agreements with more than 800 NGOs that offer services, including entrepreneurial education and training. In addition, a good percentage of the wide range of entrepreneurship training courses and programmes provided by NGOs and other initiatives in different settings and places is non-formal.

The diversity of entrepreneurial education and training providers could be considered as enriching entrepreneurial education, but many specialists refer to the lack of coordination, wasted resources when very similar educational programmes are designed and implemented, and the absence of objective monitoring and evaluation mechanisms as weaknesses. A comprehensive strategic approach to identify a national vision and articulate the mission of most, if not all, actors in the field could create a

⁴⁷ Hala Hattab (2008). Egyptian Global Entrepreneurship Report 2008. Department of Business Administration. El Sherouk: British University in Egypt, www.gemconsortium.org/national_reports.aspx, Retrieved on 17 November 2009,, p.xiii

logical umbrella/framework for planning entrepreneurial education and training, whether they focus on building entrepreneurial skills for all learners in schools or target those who are considering to become entrepreneurs.

4.3.3 Assessment and Evaluation

A good deal of analysis has been provided in the previous sections of the report. This section focuses on some analysis/assessment aspects that have not yet been adequately covered, particularly the quality of entrepreneurial education and training and entrepreneurship of women.

- **Quality of EPE**

It goes without saying that issues regarding the quality of education are of highest importance in all educational reform efforts and programmes. In the case of entrepreneurial education in Egypt, which so far heavily relies on non-formal programmes and institutions, quality issues become even more important. Given the availability of quality learning materials prepared by international and regional organizations such as UNESCO, ILO, and ALO/ACHRD, quality of EPE becomes more linked to teachers/trainers.

Special attention needs to be given to the selection and training of trainers/teachers to avoid entrusting civil servants who have never considered self-employment or establishing their own business with the responsibility of training entrepreneurs. The new generic competency of entrepreneurial education cannot be acquired through traditional teaching approaches and methods. Innovative approaches to participatory learning are crucial, and the selection of appropriate teachers/trainers must be given the highest priority. Also, issues of appropriate funding of entrepreneurial training are important to achieve the desired impact. Monitoring and evaluation aiming at improving all aspects of entrepreneurial education and training should be considered. In absence of widely accepted criteria for assessing entrepreneurial education, it is difficult to judge how good the current efforts in this field are.

▪ **Women and Entrepreneurship**

There is consensus among development specialists that Egyptian women could better contribute to the economic development of their country. Statistics concerning the employment of women are rightly criticized to ignore how the surveyed women perceive what constitutes a “working woman”. In most cases, women only report as being “working” when they are employed by an employer who is not a relative and are paid regular, monthly wages. Gender-sensitive statistics are not yet the rule, and the issue of data collection requires better attention⁴⁸. The issue of women entrepreneurship therefore remains a priority for research.

The 2008 GEM report looked into the matter and concluded that “women in Egypt represent a large untapped source of entrepreneurial potential and an economic force if that potential is encouraged and supported more fully.”⁴⁹ This could be achieved through:

- Articulating women’s entrepreneurship as an economic issue rather than as a gender or social issue and recognizing the contribution of women entrepreneurs as economic and wealth-creating agents;
- Launching cultural awareness campaigns to address the social and cultural impediments facing women who would like to play a more active role in economic activity by starting their own business, and implementing special initiatives in postsecondary institutions and universities to promote entrepreneurship to female students; and
- Implementing initiatives to promote entrepreneurship for women, including a systematic network of entrepreneurship and business support services to help transfer the knowledge and skills needed to develop business ideas and new ventures (e.g. special programmes to mentor and coach women on starting up businesses, expanded women’s enterprise centres, entrepreneurship training opportunities for women who are trying to break into the labour market, financial intermediaries and special loan products dedicated to women (e.g. less rigid collateral requirements, tailored pay-back mechanisms).

⁴⁸ Aboubakr Abdeen Badawi (2006). Difficulties Facing Women in Education and Training. A paper presented in the joint ALO-Tunisian Ministry of Employment, Tunis, 28030 March 2006, p.8.

⁴⁹ Hala Hattab (2008). Egyptian Global Entrepreneurship Report 2008. Department of Business Administration. El Sherouk: British University in Egypt, www.gemconsortium.org/national_reports.aspx, Retrieved on 17 November 2009, pp xvi-xvii

Several other reports also suggest that more efforts should be made to target the entrepreneurial development of women: "Egypt's large gender gap in the entrepreneurial activity rates of men and women is thus an area of concern."⁵⁰ Proper EPE for all students at all levels of education would address this concern.

4.4 Implementation and Technical Support

Promoting successful entrepreneurship in general and entrepreneurial education and training in particular is the responsibility of a wide range of national bodies, both private and public. Mutual support among these bodies is a must, for otherwise, precious resources might be wasted with no impact on development. In this section, the report focuses on three key priorities, namely teaching methodologies, national partners in promoting and providing entrepreneurial education and training, some regional and international efforts that support Egypt in this endeavor.

4.4.1 Teaching Methodologies and Teachers

Although most faculties of education that prepare teachers in different disciplines did not so far respond to the need for skilling their students in the field of entrepreneurial education, almost all teachers currently responsible for learning in this crucial area are well trained for the job through technical cooperation providers such as the ILO training for the Know About Business (KAB) programme. As mentioned earlier, selection of teachers/trainers who are capable of providing quality entrepreneurial education/training represents a bottleneck and deserves special attention. Institutionalizing entrepreneurial education as one of the main areas of teacher preparation in faculties of education as well as extensive in-service training of the about one million teachers and trainers in Egypt is paramount.

Several available teacher training programmes in Egypt include interactive and 'learning by doing' activities, which are crucial to training teachers on how to use active learning approaches. Extending the scope of such training to all teachers would greatly support entrepreneurial education in Egypt. It should be always remembered that entrepreneurial education and promoting entrepreneurial culture are not only

⁵⁰ Hala Hattab (2008), *ibid*, pp. xiii-xiv

confined to some teachers, but it should be provided to all. The newly established Professional Training Academy (PTA) for teachers represents a golden opportunity to qualify teachers in EPE. With an annual intake of about 80,000 new graduates looking for employment as teachers as well as a good number of in-service trainings, the PTA could play a good role in introducing the new EPE concept.

4.4.2 National Partners

Entrepreneurial education and training is a very popular topic for many NGOs as well as academic and for-profit training institutions in Egypt. With the availability of soft loans through the SFD and/or other sources, the number of implementing bodies is ever growing to now include more than 800 NGOs and about 20 universities, as well as a wide range of private and public training providers. Annual reports of the SFD identify main national partners in all aspects of entrepreneurship, including education and training. Most Ministries, all Governorates and many public entities are, according to the SME law, partners in promoting entrepreneurship, including training for it.

In addition to the more than 800 NGOs mentioned earlier, the list of main partners in entrepreneurial education and training includes, but is not limited to: the National Centre for Building and Construction Research, the Egyptian Organization for Standardization and Quality (EOS), the Future Generation Association, the Industrial Training Council, the Egyptian Group for Tourism Development. If there is well-planned and articulated mutual cooperation, this diversity of national providers can greatly support the objective of widely spreading the new concept of EPE.

4.4.3 Regional and International Cooperation

Egypt is involved in a wide range of Arab and international cooperation activities in the area of SME development. The 2007 annual report of the SFD⁵¹ lists 19 major regional and international organizations that are active in Egypt⁵²: AfDP, AFESD, ADF, CIDA, CBD, DANIDA, EU, FAID, GTZ, IDB, IFAD, the Italian government, JBIC, JICA, KFAED, KfW, SFD, UNDP, and the WB.

⁵¹ SFD (2008). Annual Report-2007. SFD-Cairo.

⁵² All abbreviations are listed in the acronyms list (Annex 2 of the report)

Some examples of regional and international efforts in the area of entrepreneurial education and training are:

- The Arab Centre for HRD in Tripoli, Libya, analyzed needs, identified basic competences of entrepreneurs and designed an entrepreneurial training programme. The programme is available free of charge on the Internet and on CD-ROM. The training materials are currently converted into an interactive programme. The Centre plans to introduce an initiative to train trainers for the programme and is considering a system to license them. The programme addresses four target groups (as indicated in section 4-5-2 of the report);
- The International Labour Organization (ILO) is implementing their Know About Business (KAB) programme in Algeria, Egypt, Morocco and Tunisia with the financial support of CIDA (further details can be found in section 4-5-1);
- The joint UNIDO and Kingdom of Bahrain Arab Regional Centre for Employers and Investors Training (ARCEIT) in Bahrain. ARCEIT was established in February 2001, following an earlier model (the Indian Regional Centre (IRC)). Responsibilities of the Centre include increasing the number of entrepreneurs through educational, training and consultation programmes, as well as creating and disseminating the entrepreneurial spirit among youth in the Arab Region. Selecting trainees for the programmes follows a scientific approach and focuses on interviews, written tests and assessing the commitment of the applicant; and
- The UNIDO Investment and Technology Promotion Network (ITPN) in the Arab States includes Bahrain (Manama), Egypt (Cairo), Jordan (Amman) and Morocco (Rabat), and internationally Belgium (Walloon Region), China (Beijing and Shanghai), France (Paris), Greece (Athens), Italy (Milan/Bologna), Japan (Tokyo), Korea (Seoul), Poland (Warsaw), the Russian Federation (Moscow), and the United Kingdom (North-West region). Entrepreneurial education is one of the areas handled by the ITPN.

4.5 Examples of EPE in Egypt

Three selected EPE practices in Egypt are mentioned below. The initiatives were chosen to demonstrate the diversity of existing practices. One project is about broadening the scope of the utilization of an entrepreneurial training programme, a second attempts to create free of charge, interactive learning materials on the Internet and the third is a policy level project that is being implemented in 16 countries in South-Eastern Europe, North Africa and the Middle East.

4.5.1 ILO/CIDA KAB Initiative

The ILO Know About Business (KAB) programme can be classified, as is reflected in its name, as an introductory programme that addresses all learners and aims to raise their awareness about entrepreneurship. The programme is one in a series that also includes the Start Your Business (SYB) and Start and Improve Your Business (SIYB) programmes⁵³. KAB consists of 9 educational units and contains a trainer's guide as well as the necessary learning materials for students, including working sheets. The package also includes a trainee's workbook and a business game. Several Memoranda of Understanding (MOU) were signed between the ILO and education/training providers in Egypt, which allow for 6 month to 2 year cooperation in applying KAB, including the training of teachers, customizing the programme to local conditions, and pilot implementation. The Ministries of Education and Higher Education, Trade and Industry, Manpower and Migration are among those benefiting from the programme. The Canadian International Development Agency (CIDA) is financing this stage of the pilot implementation in Egypt, as well as in Algeria, Morocco and Tunisia.

4.5.2 ACHRD Interactive Learning Materials

The Arab Centre for Human Resources Development (ACHRD) of the Arab Labour Organization (ALO) formulated this project, which has been adopted by the Arab Labour Conference as a priority in the Arab region. The project started with reviewing available entrepreneurial materials and conducting an in-depth analysis of the competencies required to become an entrepreneur. A team of experts studied these competencies and divided them into 4 main stages as they relate to enterprise, namely:

⁵³ For further info: ILO (2009). Supporting Entrepreneurship Education: A report on the Global Outreach of the ILO's Know About Business programme. Geneva: ILO.

- Knowledge of the world of work and SMEs;
- Establishing a SME;
- Managing an SME; and
- Developing a SME.

The competencies relevant for each stage were then translated into training curricula and a training programme. Learning materials were developed, piloted and amended. The final beta version of the materials have been widely distributed at the Arab Labour Conference and were made available for free on the Internet and on CD-ROM for those without regular Internet access. To promote wider use, the programme is, at present, being transformed into an interactive programme. Qualifying and certifying the trainers is planned as the next step of the project. Several Arab countries have already signed agreements with the ACHRD to implement the programme and customize the materials to their needs.

4.5.3 European Commission/ETF

Sixteen countries in South-Eastern Europe, North Africa and the Middle East have expressed interest in increasing opportunities for lifelong entrepreneurial learning as part of their commitment to the European Union Enterprise Charter. Together with the European Commission and other partners, the European Training Foundation (ETF) has been working, since 2006, on a policy index that is designed to help countries meet the specific challenges of promoting an enterprise culture.

The project has four main elements. Firstly, it encourages the building of policy-making partnerships in Serbia and Lebanon. According to the Charter's policy index, engaging all relevant stakeholders in designing policy is essential for developing lifelong entrepreneurial learning. Secondly, the project uses the policy index to help businesses better understand and articulate their training needs. This activity concentrates on Syria, but the resulting know-how will be shared with two neighboring partner countries. Thirdly, the project is piloting a set of indicators for measuring how well universities are doing at delivering entrepreneurial learning in all disciplines and at generally promoting the spirit of entrepreneurship. Starting with a select group of intuitions, this activity is also used as a way of promoting structured dialogue between Ministries of Education and the business sector.

4.6 Conclusions and Recommendations⁵⁴

Based on the aforementioned analysis, the following set of directed recommendations is presented for the national, regional and international levels. A broader agenda of what could be done in this area can be found in "The Oslo Agenda for Entrepreneurial Education in Europe", which was prepared with input from 33 countries in 2006.⁵⁵

4.6.1 National Level

Three sub-sets of recommendations are presented here, which focus on main areas of concern, namely the national education system, the need for a comprehensive national entrepreneurial education strategy, and women's entrepreneurship.

▪ *The National Education System*

It is crucial that reforms will be undertaken in the education system to enable it to become a main driving force in the development of entrepreneurship. This will involve:⁵⁶

- Restructuring the educational system to foster creativity and independent thinking (reviewing curriculum at the elementary and secondary levels, introducing entrepreneurship materials into more schools and classes, integrating entrepreneurship classes in TVET programmes/courses, introducing entrepreneurship as a major in universities, encouraging a career advisory);
- Introducing management skills modules in secondary schools, vocational institutions and universities (non-degree programmes to enhance skills for starting up and growing a business, expanding offers of flexible entrepreneurship orientation, supporting qualified NGOs and business associations throughout the country); and

⁵⁴ This section of the paper utilizes many of the recommendations of several reports listed in the References List

⁵⁵ The Oslo Agenda for Entrepreneurial Education in Europe (2006), http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/doc/oslo_agenda_final/en.pdf

⁵⁶ Hala Hattab (2008). Egyptian Global Entrepreneurship Report 2008. Department of Business Administration. El Sherouk: British University in Egypt, www.gemconsortium.org/national_reports.aspx, Retrieved on 17 November 2009, p.xiv.

- Raising awareness that an entrepreneurial mindset needs to be developed as a key competence, particularly at all compulsory education levels.

- ***Development of a Comprehensive Entrepreneurial Education Strategy***

Formulating a comprehensive entrepreneurship policy and framework for action to serve as a cross-government roadmap enables the refinement and development of complementary policies, measures and actions to foster entrepreneurship as part of the economic growth agenda. The strategy should include, but would not be limited to:

- A regular and reliable monitoring system on enterprise training;
- Investing in developing entrepreneurial attributes that specifically target the development of young entrepreneurs; and
- Promoting entrepreneurial attitudes (such as creativity, autonomy and risk-taking) and specific entrepreneurial skills (such as bookkeeping and business planning).

- ***Women and Entrepreneurship***

- Launching cultural awareness campaigns to address the social and cultural impediments facing women who would like to play a more active role in economic activity by starting their own business; and
- Ensuring emphasis on gender-specific data collection and analysis in all economic areas, with a focus on start ups and related fields.

4.6.2 Regional Level (Arab States)

Given the presence of the UNEVOC Network in the Arab States, active involvement of the Arab Labour Organization (ALO) and its Arab Centre for HRD (ACHRD), and the interest of several regional bodies in the area of entrepreneurial education in training, better coordination and information dissemination would enhance the impact of existing efforts. This should include:

- Establishing an information and/or coordination centre to institutionalize cooperation;
- Upgrading and utilizing current websites to transparently present data and main outputs for wider dissemination and better visibility of efforts; and
- Formulating a high-level consultation mechanism that meets on a regular basis to direct cooperation efforts.

4.6.3 International Level

Current efforts supporting Egypt in the area of entrepreneurship in general and entrepreneurial education and training in particular may join hands to promote strategic planning and the formulation of a vision to guide further promotion of SMEs. Currently, various international partners play a great role in supporting specific entrepreneurial efforts. An international initiative to promote coordination, exchange of information and transparency these initiatives would greatly enhance effectiveness.

This current case study report agrees with recent reports such as the GEM 2008 and the OECD-EU 2008 report that a lot is going on in promoting and supporting entrepreneurship and entrepreneurial education and training at the implementation level in Egypt, while the policy/strategy level is not well devised. If the UNESCO/StratREAL project focuses on assisting at the policy/strategy level, it can optimize its impact and pave the way for further coordination and cooperation. This new initiative (for which this report is prepared) is well suited to lead such an important effort.

5. Regional Synthesis Report, Dr. Munther Masri

5.1 Introduction.....	118
5.2 Concept and Frameworks	119
5.3 Policy, Legislation and Governance	124
5.4 Basic Education	125
5.5 Secondary Education	126
5.6 Curricula, Textbooks and Assessment Tools.....	128
5.7 Teacher Education and Training.....	128
5.8 Financing.....	128
5.9 Community Involvement	129
5.10 EPE and Gender Issues	130
5.11 Regional and International Dimension	132
5.12 Sharing of EPE Experiences	133
5.13 Regional and International Cooperation	137
5.14 The Way Forward	140

5.1 Introduction

The background for this synthesis report as well as the case studies that preceded it is a partnership agreement between UNESCO and the StratREAL Foundation to cooperate in a project in the Arab States in the field of “entrepreneurship education (EPE)”. The project consists of two components. The first component comprised the assessment of the status of EPE in some Arab countries through the development of four case studies, which covered Jordan, Tunisia, Oman and Egypt. These case studies helped to identify and assess the relevant national experiences and can support future efforts that are hoped to be directed towards the incorporation of EPE into Arab educational systems. The first component is concluded with this synthesis report, which takes into consideration the findings and national experiences of the four case studies, identifies variations and common approaches, draws conclusions and highlights needs and priorities.

The project is considered a regional input to a UNESCO initiative to support EPE in formal education systems which started in 2008.

The overall objective of the project is to support the integration of EPE in the educational policies, systems, programmes and practices of the Arab States. It is expected that such integration will have an impact at the individual, enterprise and national levels:

- At the individual level, EPE enhances life skills, widens experiences and prepares for the world of work. Consequently, EPE helps to promote higher income through income-generating activities, higher standards of living and satisfaction and a sense of achievement;
- At the enterprise level, EPE is expected to support innovation, higher productivity, an enhanced level of competitiveness and a better work environment; and
- At the national level, EPE can assist to obtain higher economic growth and enhance the trend towards self employment, which leads to the reduction of unemployment, especially among youth.

The target audience for this report includes all those who are involved in education, within and outside the education system and at all levels and variations of the educational system. In particular, teachers and school administrators are responsible for the implementation dimension, while central authorities, whether at the Ministerial or regional level are mainly responsible for overall policies, legislation, and coordination. In centralized educational systems, as is the case in the majority of Arab countries, such central authorities are also primarily responsible for financing, curricula, and teacher education.

Methodology

The methodology adopted for the preparation of this synthesis report included the following:

- Desk review of the four case studies related to Jordan, Tunisia, Oman and Egypt, as well as available information about the experiences of other Arab countries;
- Assessment of information on specific relevant initiatives and programmes that have so far been undertaken at the national and international levels;
- Discussions with researchers and senior officials of the relevant agencies and stakeholders; and
- Discussions at two workshops (August and December 2009) with the research team that prepared the case studies and the coordination support team from UNESCO (see Annex 1), as well as their comments and inputs during the preparation of the report.

5.2 Concepts and Frameworks

Entrepreneurship education is very broadly defined and has economic, social and cultural dimensions. Many definitions exist for EPE, some of which emphasize the general higher mental skills that target the individual, such as innovation, initiative, problem solving, etc., while others highlight preparation for the world of work and lay emphasis on employability skills.

In 2002, the European Commission adopted the following definition of EPE: “Entrepreneurship is a dynamic and social process where individuals, alone or in

collaboration, identify opportunities for innovation and act upon these by transforming ideas into practical and targeted activities, whether in a social, cultural or economic context”⁵⁷.

In 2006, UNESCO and ILO issued a joint publication titled “Towards an Entrepreneurial Culture for the 21st Century”. In this publication, EPE is defined as follows: “Entrepreneurship education is conceived in a broad sense as a pedagogic approach to fostering self-esteem and self-confidence by stimulating and nurturing the talents and creativity of the individual, while building the relevant skills and values that will assist learners in expanding their perspectives on schooling and opportunities beyond. Methodologies are based on the use of personal, behavioral, motivational, attitudinal and career planning activities”⁵⁸.

The scope of EPE in general, and the areas that permeate and are permeated by EPE are varied and can comprise all aspects and dimensions of the education system, including the relevant inputs, processes and implementation practices in, (with varying degrees and approaches) all educational disciplines and at all levels in formal and non-formal systems. At the macro level (central and regional), it encompasses inputs such as legislation, financing and governance. . In centralized systems, as is the case in the majority of Arab States, it also comprises curricula, teacher education and the roles of the different stakeholders in the public and private sectors. At the micro or school level, it includes inputs such as teaching and learning methodologies, testing and certification, out-of-class and out-of-school activities, school administration, staff development and local community involvement.

The scope of the four case studies, and hence this synthesis report, was restricted to formal primary and secondary education, including technical and vocational education, as well as teacher education and training. It thus excludes non-formal education, preschool and higher education, except in as much as they encompass cross-cutting issues with the adopted scope.

⁵⁷ European Commission (2010). Towards Greater Cooperation and Coherence in Entrepreneurship Education. Birmingham.

⁵⁸ UNESCO/ILO (2006). Towards an Entrepreneurial Culture for the Twenty-first Century: Stimulating Entrepreneurial Spirit through Entrepreneurship Education in Secondary Schools. Paris: UNESCO.

The following dimensions and inputs of educational systems will be dealt with in this report:

- Policy, legislation and governance at the national level;
- Basic and secondary education, including technical and vocational education;
- Curriculum and assessment tools;
- Teacher education and training;
- Financing;
- Private sector and NGO involvement; and
- Interaction with regional and international experiences.

Each one of these dimensions and inputs will be explored for the extent to which EPE can be explicitly or implicitly catered for, with reference to national experiences wherever appropriate.

Entrepreneurship education can, to varying degrees and approaches, be influenced by two kinds of factors. These are:

5.2.1 Personal factors

One way to view the personal factors that impact upon an individual's entrepreneurship competencies is to classify them into three complementary categories that an education system can foster and take into consideration in the formulation of policies and relevant implementation practices. These categories are:

- **Professional (job-related) skills and competences**

These competences mainly include the requirements for the work an individual is being prepared for, including relevant general and specialized knowledge, applied and practical skills, and the necessary attitudes, including, for example, in the areas of IT, occupational health and safety, teamwork, self discipline and time and work management. They also comprise preparation for employment and the world of work, including self employment and the establishment of micro, small and medium enterprises.

- **Communication skills and competences**

This category includes teamwork, work ethics, the ability to adapt to a work environment, as well as the skills needed to develop proper relationships with employers, employees, peers, colleagues and customers.

- **Developmental and higher mental skills**

This category comprises such soft skills as critical thinking, problem solving, innovation, initiative, creativity, calculated risk taking, etc.

Needless to say, EPE is associated mostly with the higher mental and communication skills, while its effects impact on all professional skills. EPE is thus mostly concerned with the enhancement of attitudes and mindsets that foster relevant higher mental and communication skills.

5.2.2 External factors

These factors include, to varying degrees and with different effects, the education system as well as the social, cultural, economic and political conditions that characterize and prevail in a society. They also include the work environment and community involvement. As expected, these external factors can strengthen or weaken efforts to enhance the personal factors referred to above.

Among all the external factors, the education system is the one that can most easily be designed and managed to systematically support entrepreneurship competences and performance through appropriate approaches and structures. In the Arab countries, the social, economic and political areas include weaknesses such as specific social taboos, economic hardship or deficiencies in the political environment. These impose limitations on individual efforts to develop entrepreneurship competences because they distract at least part of the effort away from the core goals of entrepreneurship education. Community involvement through clubs, political parties, philanthropic societies, etc. can be a good channel for general entrepreneurship efforts and activities, although such involvement is often limited in its effect by the aforementioned social, economic and political factors. This also applies to a great extent to work environments and practices where entrepreneurship competences and

performance are needed most to enhance productivity, competitiveness and satisfaction.

Figure (1) shows a diagram of the personal and external factors that influence entrepreneurship competence and performance.

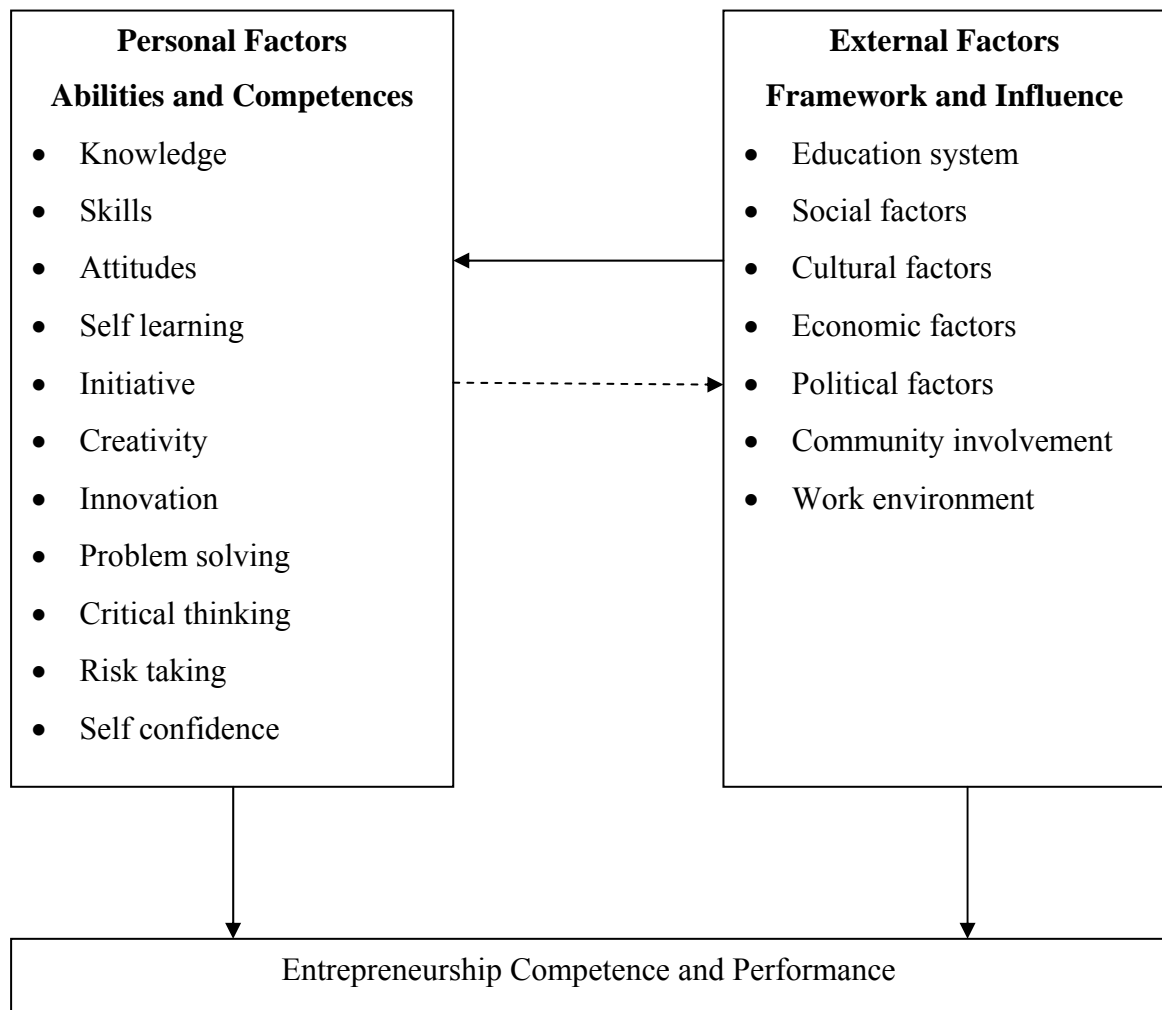


Figure (1): The personal and external factors that influence entrepreneurship competence and performance

As indicated in the figure, external factors have an important influence on personal factors. Personal factors, on the other hand, are not expected to have such an influence on external factors, except possibly at work, unless an entrepreneurship culture becomes the norm at the society level and is no longer the exception.

5.3 Policy, Legislation and Governance

Policies, legislation tools and governance systems can be important instruments to establish a framework that supports EPE in education systems. The general objectives of education, which are usually spelled out through such means, can be targeted to have clear references to skills and competences that enhance the entrepreneurial spirit, mindset and abilities of the learner, and that need to permeate the education system. It is not unusual for policies, legislation tools and governance systems to refer explicitly to the need to develop the various aspects of the learner's personality, including physical, mental, emotional and social components, many of which, if well reflected in the design and practices of the education system, can enhance the entrepreneurial spirit of the learner.

Governance systems that incorporate relevant management and administrative structures, approaches and practices can be particularly important to support EPE at the different levels, including the central (i.e. the Ministry), the regional (i.e. the field directorates) and the school level. The school administration can play a major role, if school empowerment is given high priority and schools are enabled to take initiative and undertake innovations that facilitate the integration of EPE in the teaching and learning process.

Nevertheless, and despite all that might already be incorporated in existing policies, legislations and governance systems that directly or indirectly supports EPE, there is a need to develop a special strategy that explicitly targets entrepreneurship as a comprehensive and cross-cutting approach that permeates all aspects of the education system, as mentioned earlier.

Box N° 1 states examples of reference to EPE in the legislative tools of some Arab Countries.

Box N° 1: EPE in Arab Policies and Legislative Tools

- In Jordan, article four of the education act (1994) defines the objectives of education which are, among other issues, to shape citizens who are endowed with human virtues and ideals and who can develop in the various aspects of their personality: physically, mentally, spiritually, emotionally and socially. The learners shall be able to acquire a wide spectrum of factual knowledge, applied skills and positive attitudes.
- In Tunisia, article 57 of the education act (2002) states that schools must provide students with “entrepreneurial skills”, which include developing a spirit of creativity and goal-oriented project planning, implementation and assessment. These skills shall be acquired through individual and group activities in all courses as well as in school activities.
- In Oman, the strategy of education (2006-2020) that was jointly developed by the Ministry of Education and Ministry of Higher Education. It states that the new approach to education should meet international standards and ensure that all Omanis have the necessary skills and competencies for life and for the workforce. Life-long learning is a priority.
- In Egypt, law 141 (2004) entrusts the Social Fund for Development (SFD) with the overall management of promoting small and micro project creation and development, including training. The SFD established a database on entrepreneurial training providers and cooperating NGOs. According to joint SFD-NGO agreements, some partners already started developing an entrepreneurial education programme for university-level students.

5.4 Basic Education

Basic education, which is usually compulsory, lasts for nine or ten years in many Arab countries and caters for the age groups 6 to 15 or 6 to 16. It can be considered the best vehicle to incorporate a strong EPE component that includes a wide spectrum of relevant skills and attitudes. This is so because basic education caters for all, or at

least the great majority of citizens (the participation rate in basic compulsory education is very high, approaching 100% in many Arab countries, which is usually not the case for (upper) secondary and higher education). In addition, it is usually not specialized and incorporates most, if not all disciplines that can incorporate necessary EPE skills. This includes the humanities, the social sciences, pure and natural sciences, physical education, arts education and computer science As well as music education and pre-vocational and technological education. The various competences that support entrepreneurship (including knowledge, skills and attitudes) can, to varying degrees, be incorporated into the different disciplines. The humanities and social sciences can, for example, emphasize analytical skills, open-mindedness and self-confidence. Computer science can highlight independent learning skills, initiative and creativity. Furthermore, the pure and applied sciences can foster the skills of critical thinking and problem solving, while pre-vocational and technological education can incorporate the skills of preparing for the world of work, learning through practical experiences, and calculated risk taking.

5.5 Secondary Education

Secondary education in Arab countries is not compulsory and usually consists of academic and vocational streams. It lasts for two or three years, and covers the age groups 15 to 18 or 16 to 18. The age groups catered for, as well the noticeable variations in the content and objectives of the different streams need to be taken into consideration in any plans and efforts to incorporate EPE into secondary education.

As in the case of basic education, varying degrees, approaches and dimensions of EPE can be incorporated into the various streams and disciplines of secondary education.

The following are the main features that characterize EPE in secondary education:

- The basic concepts and theories of entrepreneurship can be catered for in greater depth at this educational level;
- Higher standards for out-of-class and out-of-school activities, as well as for involvement in community work, can be set and fit well into the programmes if well planned and implemented;
- Due to its academic and vocational tracks, secondary education potentially lends itself to cater for individual differences, which is one of the basic characteristics of

- Learners at this stage are expected to be able to undertake high-level and high-quality initiatives, creative activities and work in teams, as well as to demonstrate independence and self confidence. This can be supported through the establishment of student clubs, committees, unions, forums, etc., as well through encouraging the development of hobbies and linkages with enterprises.

5.5.1 Secondary Academic Education

Academic streams in secondary education usually comprise several options in the literary and scientific fields. Because of their predominantly academic nature, EPE can best be taken care of in these streams through an emphasis on out-of-class and out-of-school activities that include strong links with enterprises and the community at large through productive services and projects. Knowledge of the characteristics of the world of work and the criteria for the establishment of enterprises, as well as the ethics and economics of working life can be major components of EPE competences here.

5.5.2 Secondary Vocational Education

Vocational education in many of the Arab countries is run according to two main systems: the school system, where most, if not all, practical applications are implemented in the school workshops, and the dual (cooperative) system where the practical component takes place both at the school and at the workplace or exclusively at the workplace in cooperation with employers according to the apprenticeship system. As expected, vocational education at secondary level, which aims to prepare skilled workers and craftspeople, lends itself well to including EPE skills and competences that are mainly related to employability, self employment and the establishment of new enterprises. If well planned, the cooperative system has the extra advantage of exposing trainees to both the school and the workplace environment.

5.6 Curricula, Textbooks and Assessment Tools

Curricula, textbooks and assessment systems have important roles in integrating EPE concepts and competences into the education system. For this purpose, curricula and textbooks should be results and outcome based, of multi-media nature, student centered and supportive of independent learning. Assessment tools, whether they be school-based or national tests and examinations, should be designed to enhance the learner's competences in such skills as critical thinking, problem solving and analysis. It is well known that the nature and content of tests and examinations greatly influences what is taught and how it is taught. Furthermore, the proper utilization of ICT resources and tools in this context will enhance such EPE skills as autonomous learning, creativity and self assessment, as well as exposure to different sources of knowledge.

5.7 Teacher Education and Training

Teaching and learning methodologies are crucial approaches to incorporate EPE skills and competences in the education system, as are curricula, textbooks and assessment tools. Through the appropriate teaching methodologies and assessment techniques, the teacher can be an influential source for EPE. Almost all skills and competences that enhance the learner's entrepreneurship knowledge, skills and attitudes can be targeted and developed through the utilization of adequate teaching methods. All this highlights the importance of teacher education and training, both pre-service and in-service, to enable him or her to impart entrepreneurship skills and thus be an active player in EPE. It goes without saying that the need for proper training of teachers applies to all those involved in the teaching profession, including school principals, administrative and managerial staff, as well as staff at the central and regional levels. Teacher pre-service training programmes, which are usually undertaken by higher institutes and colleges of education, must be well staffed and equipped to impart the necessary knowledge, skills and attitudes to the teachers. This applies also to in-service training programmes.

5.8 Financing

The importance of practical skills and applied activities that accompany any successful effort to support EPE in the education system requires the availability of funds irrespective of the source of financing. Funding policies and practices are of special importance in most Arab countries, where the education systems are

centralized, with limited authority provided to schools to spend money. The nature of students' efforts and experiences that support EPE through out-of-class and out-of-school activities require the direct or indirect participation of external stakeholders to meet some of the costs involved. Such stakeholders include enterprises, NGOs, special funds and even individuals. Income-generating activities in schools can serve two purposes in this regard: Firstly, they secure some funds for the school to support its efforts to implement EPE, and secondly, income generating projects provide good opportunities for the students to gain some fundamental knowledge about entrepreneurship enhance entrepreneurship skills such as innovation, self-employment, teamwork and labour market skills, in addition to such employability skills as project budgeting, ensuring the quality of products, marketing, etc.

Reward systems and special funds can be a practical approach and a source of funding for EPE activities. The effectiveness of such sources of funding can be maximized through the following:

- Securing the sustainability of such funding sources to ensure long-term effect and influence;
- Involving external stakeholders such as enterprises, NGOs and even individuals, thus adding exposure to the community and the world of work;
- Developing relevant and clear criteria for funding EPE projects and activities and applying these criteria in the funding decisions;
- Setting up a monitoring and evaluation system for the follow up and assessment of the outcomes and, eventually, the impact of the funded projects and activities; and
- Encouraging joint projects through cooperation between schools in the design and implementation stages.

5.9 Community Involvement

Any EPE strategy or action plan can only have credibility and relevance if active community involvement is secured through different types and degrees of participation, although efforts and initiatives to incorporate EPE in education systems are understandably expected to be initiated and adopted by Education Ministries and related institutions. Community involvement, including the private sector and NGOs, can either be secured by inviting them to be active players and undertake activities

that incorporate EPE skills and competences, both in formal and non-formal education, or by the community catering for some of the schools' special needs. This can include providing facilities or services.. As expected, some of the efforts and initiatives undertaken by the private sector and NGOs will help to support innovations, entrepreneurship and linkages with the world of work at the school level, whether through the school administration, the teaching profession, the student body, or any combination of these. Examples of types of relationships between the education system / the school on the one hand and external stakeholders on the other hand include:

- Twinning arrangements whereby the school has a special, long-term relationship with an enterprise or NGO, thus benefitting from a variety of services and facilities, preferably according to agreed upon plans;
- Sponsorship arrangements according to which an external stakeholder sponsors a certain activity or service in a school. This can include sports, music, and school projects;
- Secondment of teachers and/or students to enterprises or NGOs, thus helping to extend their experiences and secure exposure to the world of work;
- Field studies where students are entrusted with undertaking studies and research regarding specific community issues, e.g. related to gender, unemployment, services for individuals with special needs, and political issues; and
- Participation of teachers and/or students in the various training programmes of institutions, enterprises and agencies.

5.10 EPE and Gender Issues

In principle, and taking into consideration the concept and objectives of EPE as well as the personal factors that influence entrepreneurship competences and that were referred to earlier, the gender issue does not or should not need special consideration since it is already assimilated in such concepts, objectives and personal factors. Nevertheless, the external factors that influence the outcomes and impact of EPE, especially the social, economic, work environment and employment factors, can either support or impede plans and efforts to utilize EPE in actual life situations that include employment and the world of work in general. Consequently, the factors that

concern gender issues and influence EPE can be divided into two major groups as follows:

5.10.1 Gender-Supportive Factors

These factors tend to help women/girls benefit from EPE on the same footing as men/boys. They include:

- **The Quantitative Aspects of Education: Participation Rates**

This factor represents the quantitative dimension of gender issues in the education system. In many Arab countries, including those that were examined in the EPE case studies, the rate of participation of females in education is roughly equal to that of males' at all educational levels, and sometimes exceeds that of males. This creates a situation where as many female as male citizens are exposed to EPE activities and efforts.

- **EPE Objectives and Content**

The nature of EPE objectives and content lends itself to inherently provide competences and skills equally to all learners, while at the same time taking into account individual differences.

- **Policies and Legislation**

Like in most parts of the world, policy and legislation in Arab countries pay service (although sometimes merely lip service) to gender equity in the different aspects of life, including education and work. This provides the necessary framework to deal with any negative aspects of gender issues in EPE. As expected, it is, in the end, up to the practices and implementation efforts to effectively translate such policies and legislation.

5.10.2 Gender-Impeding Factors

These factors tend to reduce the possibility of realizing gender equity in education, including in EPE. They include:

- **The qualitative aspects of education**

The optimism about gender equity in the quantitative aspects of education as represented in the participation rates is not reflected to the same extent in the qualitative aspects due to weaknesses and shortcomings such as the image of women in the text books and the under representation of women in the leadership and decision-making positions in the education system both at the central and regional levels and despite the abundance of female teachers and school principals. This is in addition to the self-imposed impeding restrictions by males and females in response to social influences and factors as referred to earlier.

- **Employment**

The noticeable progress in the rate of participation of girls/women in the various educational cycles is not matched by similar participation in the labour market, especially in the private sector. In addition, and despite some progress regarding the employment of women, the unemployment rate among them is usually around double that of males in most Arab countries.

This situation stands in the way of one of the most important objectives of EPE, namely that of self-employment and the labour market.

5.11 Regional and International Dimension

A regional approach to many of the general issues related to EPE can easily be justified for the Arab States for many reasons, including:

- The nature and general content of the topic of entrepreneurship in general, and EPE in particular is not expected to comprise major controversial issues. Special needs and issues at the national level, such as the sources of financing, the roles of different stakeholders, etc. can be taken care of through action plans at the implementation level;
- The great similarities in the general structure of the education systems in the Arab countries, as well as the common cultural background including a common language, would greatly support regional efforts in this respect;
- The existing presence of regional organizations concerned with education and the labour market can secure credible ownership and fuel the initiation of a regional approach. The Arab League for Education, Culture and Science Organizations

- Regional as well as international approaches to EPE, such as those initiated by the European Commission, UNESCO, ILO, etc., can testify to the feasibility of a regional approach for the Arab countries; and
- The project on “Entrepreneurship Education in the Arab States”, which is implemented jointly by the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training-Bonn, the UNESCO Regional Bureau for Education in the Arab States-Beirut, and of which this regional synthesis report and the preceding four case studies constitute the first component, is obviously taking a regional, although limited, approach to EPE in the Arab countries.

5.12 Sharing of EPE Experiences

In addition to the four case studies presented in part one on Egypt, Jordan, Oman, and Tunisia, UNESCO sent survey tables in Arabic and English to the National Commissions for UNESCO and UNEVOC Centres in the Arab region informing them about the launch of the project (June 2009) and asking them to complete the survey tables on existing EPE projects and initiatives in their country/cluster during 2005-2009. The survey tables requested information on the project type, period, level of education (basic, secondary, TVET, higher education), budget, implementing authority, source of funding, and a brief description of objectives and expected results. During July-December 2009, UNESCO received a set of tables and short reports highlighting national efforts on EPE in various Arab countries. They included the following countries:

5.12.1 Bahrain

EPE is mainly linked to curriculum reform in vocational and technical education (commercial and industrial education), training of teachers, and involving students in project formulation related to business and industry. Most of the projects are implemented in cooperation with UN agencies (i.e. UNESCO, UNIDO), and the Japanese International Cooperation Agency (JICA). The Directorate of Technical and

Vocational Education and the Directorate of Curricula at the Ministry of Education are the implementing institutions of these projects. The budget varies from \$7,000-\$14,000. Examples of are:

- Preparation of a curriculum and text book for small business creation in commercial education courses (2005);
- A vocational and career guidance programme for industrial secondary education (2007);
- E-learning and simulation for teachers and instructors (2007);
- A International Quantitative Linguistics Association (IQLA) initiative for secondary education students, in cooperation with business and industry associations (2009);
- INJAZ Bahrain, a member of the worldwide organization Junior Achievement, was established to provide young people with a business and economic education so they will have the knowledge, skills, tools and hands-on experience they need when seeking employment. The programme supports bridging the gap between education and the workplace; and
- The Young Arab Leaders (YAL) programme is providing unique opportunities for young entrepreneurs in Bahrain. The programme was established in February 2004, as an independent Pan-Arab organization. The Bahrain (YAL) chapter and INJAZ are usually cooperating in providing students and youth learning opportunities related to business and industry.

The students will acquire a set of competencies as a result of participating in such experiences. They

- Learn about the economy, competition, banking, and businesses in general;
- Develop skills in leadership, communication, planning and teamwork;
- Become aware of labour market demands and employment opportunities;
- Learn writing a CV, interview techniques, and personal presentation; and
- Gain enthusiasm and self confidence, and develop a vision for their future career.

5.12.2 Lebanon

The UNESCO Regional Bureau for Education in the Arab States-Beirut, in cooperation with ILO Regional Office-Beirut and the Centre for Educational Research and Development (CRDP)-Lebanon, organized a National Seminar on the Promotion

of Entrepreneurship Education (EPE) in Lebanon (November 2009). The participants at the seminar discussed mechanisms of cooperation between international organizations, government authorities and NGOs in relation to entrepreneurship education in Lebanon. Examples presented at the seminar were:

- The UNESCO regional project on EPE in the Arab States (2009-2012) and the UNESCO modules on “Starting My Own Small Business” (which were developed in 2008);
- The ILO’s Know About Business” (KAB) programme;
- The Skills for Employability project, which was initiated by the British Council in Lebanon;
- INJAZ Lebanon activities in schools and universities.

A task force was formulated to investigate the options of developing joint projects during the next five years (2010-2015) in areas related to developing EPE in Lebanon. The identified areas are: policy, curriculum development, training of teachers and instructors, facilities and equipment, and networking; and

- Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) implemented a programme in Lebanon to help small and medium-sized enterprises (SMEs) face the challenges that arose from the civil war and the increased competition in today’s globalized economy. The programme supports innovation in legislation, vocational teacher training, promotes business development services, and trains experts and middle managers to meet the demands of the labour market. So far, it has been successful in developing a demand-oriented TVET system. SMEs have access to qualified experts through the use of modern teaching methods and the efficient design of co-operative (dual) initial TVET, training for master craftsmen and business-oriented short-term training. Teachers receive modern in-service training in specialized and didactic methods.

5.12.3 Morocco

Recent approaches to introducing teaching and learning experiences in the education system of Morocco that relate to business and industry have the following main objectives:

- Expanding and diversifying employment opportunities outside the public sector;

- Promoting the development of the local and regional economies;
- Providing opportunities for innovation and entrepreneurship;
- Enhancing management styles according to international standards; and
- Developing local economic competition with emphasis on quality and market economies.

EPE in the education and training system of Morocco takes place in the following ways:

- Extra-curricular activities and projects in lower secondary education;
- Teaching and learning materials and units in upper-secondary education;
- Specialized courses in technical education and engineering programmes; and
- Life-long learning topics in several training programmes offered by NGOs, business and industry for integrating youth and education system graduates into the labour market.

This information was provided by the director of L'Ecole Normale Supérieure de l'Enseignement Technique (ENSET)-Rabat.

5.12.4 Palestinian Authority

The Ministry of Education and Higher Education, Ministry of Labour, and the UNESCO Office in Ramallah cooperated in the implementation of several projects related to entrepreneurship education in the Palestinian education and training system. They include:

- Vocational awareness in schools and TVET centres, in cooperation with GTZ;
- A school-to-work programme and career/vocational guidance in basic education, in cooperation with USAID and Save the Children;
- The Know About Business (KAB) programme in industrial vocational training centres (VTCs), secondary schools, technical colleges, and community colleges, in cooperation with ILO and UNDP; and
- A vocational graduates tracking system at the Ministry of Education and Higher Education (MOEHE), in cooperation with UNESCO.

5.12.5 Sudan

The President of the Technical Education Corporation/Ministry of Higher Education and Scientific Research summarizes EPE initiatives and projects in Sudan as follows:

- The “Transformation Training Project of Graduates in Higher Education” (2007), with a budget of \$250,000, which promotes self employment and income generation through EPE courses and programmes;
- The “Agriculture and Animal Production Project” (2006), implemented by the Ministry of Labour, with financing from government banks and funds (Saving Banks Fund); and
- Carpentry and cabinet-making Workshops for vocational training graduates, funded by the Saving Banks Fund and Graduate’s Employment Project.

5.12.6 Syria

The Ministry of Education/Directorate of Technical and Vocational Education, in cooperation with business and industry associations, is taking the lead in the implementation of EPE teaching and learning experiences within the education and training system of Syria. The activities include the following:

- A business awareness programme for youth (entrepreneurial culture and career-oriented education);
- The “Know About Business” (KAB) programme, in cooperation with the ILO Regional Office in Beirut;
- The “Starting My Own Small Business” modules (UNESCO), in cooperation with the UNESCO Regional Bureau-Beirut.

5.13 Regional and International Cooperation

The ongoing regional and international programmes and initiatives on EPE in the Arab region include the following:

5.13.1 Small and Medium Enterprises CD-ROM (ALO/ACHRD)

The Arab Labour Organization (ALO) and the Arab Centre for Human Resources Development (ACHRD)-Tripoli developed an active learning CD-ROM on “Small and Medium Enterprises” (2005), which targets technical and vocational education and training (TVET) programmes in the Arab region. The programme is comprised of

nine training modules on the initiation and management of small and medium enterprises. The ACHRD-Tripoli disseminated the CD-ROM to Ministries of Labour and vocational training corporations to enhance new skills in the job market, mainly for instructors and teachers in TVET programmes and specializations.

Several business and industry associations also approached ACHRD regarding the use of the CD-ROM in training programmes. More information on the CD-ROM and the training modules can be found at the ACHRD-Tripoli website at www.achrd.com

5.13.2 Know About Business Programme (ILO)

The nine modules of “Know about Business” (KAB) are implemented in more than 30 countries worldwide. The ILO Regional Office-Beirut is providing technical support for 9 Arab countries for the use of the modules in TVET programmes. The implementation usually targets teachers and instructors and is applied in three stages: orientation and preparation for the programme, piloting of the modules, and adopting the modules into the curricula. More information on KAB can be found on the ILO website: www.ilo.org/seed

5.13.3 Starting My Own Small Business (UNESCO)

The four modules “Starting My Own Small Business”, which were developed by UNESCO were adopted and translated into Arabic in 2008. The materials target teachers and students at the secondary level (formal and non-formal education). They were disseminated to UNEVOC Centres in the Arab region to promote the development of curricula and teaching/learning practices on entrepreneurship education in the region. The link to the materials in Arabic, English and French can be found on the UNESCO website: www.unesco.org/en/tvet/toolkits-teaching-materials/

5.13.4 Skills for Employability (British Council)

The global project Skills for Employability addresses the challenges of globalization and the demand for skills in a global economy. It aims at building strong relationships with industry and employers, governments and training providers across a number of regions. Several Arab countries are participating in the project through the British Councils. The project focuses on three areas: policy dialogue, institutional partnership, and enterprise and technology challenges.

www.britishcouncil.org/skillsforemployability

5.13.5 INJAZ Al Arab (NGO)

INJAZ Al-Arab is part of Junior Achievement International (JAI). It fosters linkages between education and the workplace, targeting youth and students (14-24 years old). The programme, which highlights personal and business economics, entrepreneurship, leadership and community service, is implemented in several Arab countries. Business leaders and experts visit schools and share their experiences for orientation and guidance. www.injazalarab.org

5.13.6 Aflatoun (NGO)

Aimed at children between the ages 6-14, Aflatoun is a programme that provides social and financial education. Children are taught saving, planning and budgeting, and they practice what they learn in real life social and financial enterprises in their communities. In cooperation with a network of local partners, Aflatoun's programme is implemented in 35 countries, among them four in the Arab region (Egypt, Jordan, Palestinian Authority-West Bank and Gaza, and Sudan). For example in Egypt, Aflatoun programme reaches about 19,000 students in 63 schools. The Ministry of Education in Egypt plans to expand the programme to national scale and integrate it in all government schools. The Jordanian partner organization currently works on its own set of teaching materials adjusted to the cultural context of Jordan and the region. In Sudan, the programme is still in its initial stages but shall be expanded. To achieve this, a twinning with the Egyptian programme has been initiated. The programme is in a pilot phase in the Palestinian Authority schools. Four additional countries – Djibouti, Morocco, Tunisia, and Yemen – are in a dialogue with Aflatoun administration to work out a partnership agreement on the implementation of the programme. <http://www.aflatoun.org>

5.13.7 Small and Medium Enterprise Promotion Programme (GTZ)

GTZ's Small and Medium-sized Enterprise (SME) Promotion Programme was conducted in Egypt between 2005 and 2008 to improve the competitiveness of SMEs in selected businesses and has also been implemented in Algeria. The programme advises the Ministry of SMEs and Artisans in Algeria in the formulation and the implementation of national promotion strategies. It is developing a demand-and market-oriented range of business development services together with the national SME promotion agency. The programme cooperates with private associations,

chambers of commerce and industry as well as management consultancy firms and public promotion centres to implement these services. The programme is improving the range of financial services offered to SMEs by providing consulting on setting up a private financial institution especially geared towards the needs of SMEs.

<http://www.gtz.de/en/praxis/9695.htm>

5.14 The Way Forward

5.14.1 EPE Strategy

It is not unusual to cite references to many of the components and skills that support EPE in Arab education systems. Such references are to be found in policies, legislative tools, and objectives for the different educational cycles. Examples of such skills and competences include innovation, problem solving, critical thinking, life-long learning, etc. In addition, education systems are usually explicit in emphasizing that education is a combination of knowledge, skills and attitudes and aims to develop the personality of the learner in all its aspects: physically mentally, emotionally and socially. Furthermore, there is no lack of direct references to the need for education systems to be compatible with development needs and labour market requirements, thus requiring the inclusion of employability skills and the preparation for the world of work. All these are necessary but not sufficient conditions to have EPE securely rooted in the education systems. It is also crucial that a strategy is developed and adopted for this purpose.

It is therefore recommended that a special strategy that targets EPE as a comprehensive component in Arab education systems be developed and adopted with the intention to have entrepreneurship becoming a culture and a mindset in the education system and in society as a whole.

5.14.2 The Regional Dimension

The need to develop and adopt a strategy for EPE raises the question whether such a strategy can be established for education systems on a regional level for the Arab countries, or whether individual national strategies are needed. In principle, an Arab regional strategy is a feasible proposition, first because of the topic and nature of such a strategy, which would hardly include any controversial issues, and secondly because

of the great similarities among Arab education systems, not the least regarding the cultural and linguistic dimensions. This should not, of course, downplay the importance of national efforts and action plans that address particular local issues and requirements. The agency that is most qualified to develop an Arab EPE strategy is the Arab League Educational, Cultural and Science Organization (ALECSO).

Furthermore, other regional organizations can take on useful roles in supporting EPE in the Arab countries through activities such as the development of training materials, capacity building, supporting the exchange of experiences, and learning activities such as conferences, workshops, etc. In addition to ALECSO, these organizations include the Arab Labour Organization (ALO), the Arab Centre for Human Resources Development (ACHRD), the Union of Arab Universities, and the Arab Union for Technician Education. The Islamic Organization for Education, Science and Culture, whose activities include the Arab countries, can also have a useful role in this respect.

It is recommended that ALECSO take the initiative to develop a comprehensive Arab EPE strategy, taking into consideration relevant international experiences and encouraging all relevant regional organizations to be active partners in serving the objectives of EPE and developing action plans and undertaking activities that would serve such objectives.

5.14.3 Curricula, Textbooks and Assessment Tools

As expected, curricula, textbooks and assessment tools constitute one of the most important venues for the integration of EPE skills and competences in the education system. Assessment tools in particular, whether as utilized in textbooks or through school tests or national examinations, are of special importance in this regard.

It is recommended that any EPE strategy or work plan should highlight the following dimensions in the national curricula, textbooks and assessment tools:

- Curricula, textbooks, teacher guides and assessment tools should equally emphasize the applied skills and attitude components and the relevant knowledge components;

- The quality of learning activities and tasks included in the textbooks should be designed to be motivating, practice oriented and assisting learners to be engaged in higher order thinking;
- Curricula, textbooks and teacher guides should highlight approaches to the teaching and learning process that emphasize project work, teamwork, the use of different sources of knowledge, and the establishment of linkages with local enterprises and the community at large;
- Textbooks and teacher guides should provide for individual differences. Teacher guides in particular should show means to cater for such differences;
- Assessment tools, including school and national tests and examinations, should encourage learners to develop their analytical, critical thinking, problem solving and other soft skills. In addition, they should give the students an opportunity for self assessment and reflection on their learning; and
- The e-content in curricula, and the utilization of ICT resources and tools in general, should help to enrich and consolidate the different developmental and higher mental skills of the learners, including self learning, self assessment, initiative and creativity.

5.14.4 Teacher Education and Training

Teachers are the main implementation agents for EPE action plans and activities. Through the relevant classroom methodologies and the accompanying out-of-class and out-of-school activities (which are usually initiated, implanted and supervised by teachers), many EPE objectives, competences and skills can be achieved.

It is therefore recommended to incorporate EPE in both the pre-service education of teachers as well as in their in-service training programmes. This requires that the agencies and institutions involved in the education and training of teachers be fully involved in and committed to any comprehensive approach or strategy for EPE in the education system.

Pre-service and in-service education and training of teachers should highlight the necessary EPE knowledge and skills. Examples include:

- EPE concepts and definitions;

- The influence of personal and external factors on the learner's acquisition of EPE competences and attitudes;
- International EPE models and experiences;
- The utilization of curriculum contents and assessment tools that incorporate EPE objectives as well as the design of relevant experiences and projects and the transmission of related skills; and
- Assessment of out-of-class and out-of school activities and projects from the point of view of the degree to which they incorporate EPE competences and skills.

5.14.5 Studies and Research Work

EPE, as a comprehensive approach and strategy is relatively new in the Arab region (it is also fairly new at the international level) and has yet to be acknowledged and taken care of in the education systems. Consequently, various types of studies and research work are needed, both to support the evaluation and assessment of EPE and to help education practitioners understand the needs, objectives and approaches of EPE. Such research can also support efforts to develop strategies and action plans to integrate EPE in the different aspects of the education system.

It is therefore recommended to give special importance and pay particular attention to basic and field studies as well as other research work on the various issues and components of EPE, including the influence of external factors such as those related to the prevailing social, economic and political conditions in society. Such studies and research work can focus on national and/or regional efforts and conditions. Comparative studies can also be of special importance in this regard.

5.14.6 National Stakeholders

The success of EPE depends upon the quality and relevance of involvement of the concerned national stakeholders, which include two groups:

- Education and training providers in the public and private sectors at the various levels of responsibility including Ministries of Education and Higher Education, field directorates of education and the concerned institutions that provide the education and training services, and

- Concerned stakeholders from outside the education system, especially enterprises and NGOs that can play an important role in supporting the various elements and dimensions of EPE in the education system, whether on they be at their own initiative or at the initiative of the education system.

In this regard, it is recommended to encourage and expand as much as possible the role of external stakeholders, and to ensure the coordination and a common vision among all those concerned with EPE, be they inside or outside the education system, to ensure synchronization and the realization of the EPE objectives through a comprehensive approach.

5.14.7 Financing

The availability of funding resources, together with supporting financial policies, can play an important role in serving EPE objectives and establishing the accompanying activities in the education system, inside as well as outside the school. The participation of stakeholders from outside the education system in the funding of EPE projects and activities serves two purposes. On the one hand, such participation fulfils one of the major objectives of EPE, namely the establishment of linkages between the schools and the community at large, including enterprises. On the other hand, the diversification of financial resources helps to improve the funding policies and practices and secures the implementation of the necessary projects and activities. Reward systems and special funds, if well designed and administered as explained earlier, can be important means for financing EPE activities and projects.

It is therefore recommended that any strategy or action plan for the financing of EPE should highlight the need for the establishment of strong links between the school system and the community at large, including enterprises, NGOs, etc. Such links can provide suitable venues for the implementation of EPE experiences and at the same time secure supporting funds for the accompanying projects and activities.

Care should be taken in the development of criteria for and objectives of funding EPE projects and activities so as to maximize the expected outcomes and benefits. Examples of such criteria and objectives include:

- Enhancing teamwork through the participation of students and teachers in the implementation of projects and activities;
- Encouraging activities that lead to income-generating activities for the school and the participating team;
- Encouraging the cooperation of schools in designing and implementing joint projects, while at the same time encouraging competition among schools or groups of schools;
- Enhancing innovative initiatives and linkages between schools and the community in general, especially enterprises; and
- Targeting the various aspects and components of the education system, especially at the school level: the learners, the school administration, the teaching methodologies, the capacity building of staff, the school environment, the curricula, ICTs, and research and development (R&D).

References

1. Case Study – Jordan

- Ababneh, E. (2008). *Comprehensive Evaluation Study of Teacher's Training Program*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. Amman: NCHRD. (in Arabic)
- Ababneh, E. (2007). *Evaluation Study for Education Diploma Program in Communication and Information Technologies (CADER)*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. Amman: NCHRD. (in Arabic)
- Alshulee, J. (2009). *The Evaluation Study of the New Curriculum and Assessment Tools for the Education Reform for Knowledge Economy (ERFKE I)*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. Amman: NCHRD. (in Arabic)
- Hamed, S. (2008). *Formative Evaluation Study of the Innovation Fund Program (round 1)*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. Amman: NCHRD. (in Arabic)
- ILO (2009). *Supporting Entrepreneurship Education: A Report on the Global Outreach of the ILO's Know About Business Programme*. Geneva: ILO.
- ILO (2008). *Conclusions on Skills for Improved Productivity, Employment, Growth and Development*. International Labour Conference. Geneva: ILO.
- Kwiatkowski, S., & Sharif, N. M. (editors) (2005). *Intellectual Entrepreneurship and Courage to Act, Leon Kozminski Academy of Entrepreneurship and Management*. Warsaw, Poland.
- Ministry of Education (MoE) (2007). *Educational Statistical Report 2006/2007*. Government of Jordan-Amman.
- Ministry of Education (MoE) (2002). *Law no. 95/2002 on TVET Support Fund activities*. Government of Jordan-Amman.
- Ministry of Education (MoE), (1994). *Education Act No. 3*, General Directorate of Educational Planning, Research and Development. Amman, Jordan.
- Ministry of Labour (MoL) (2008). Law of “*Employment-Technical and Vocational Education and Training Council (E-TVET Council)*”, No. (46). Government of Jordan-Amman.
- Sheikh, O. (2007). *An Evaluation of the Discovery Schools Experiment*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. Amman: NCHRD. (in Arabic)

Sheikh, O. (2007). *A Survey Study of Teachers, School Principals and Parents Perceptions of New Curricula and Textbooks*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. NCHRD-Amman. (in Arabic)

Shyne, V. (2008). *Qualitative Study of the effect of the different ERfKE Interventions*. Series of Evaluation Studies for Education Reform for Knowledge Economy Project. NCHRD-Amman. (in Arabic)

2. Case Study – Tunisia

Ben-Gacem, L. (2007). *Building supply side capacities: Unleashing the power of enterprise – Innovation and Entrepreneurship*. Tunisia Background Country Paper, World Export Development Forum (WEDF). Montreux, Switzerland: International Trade Centre.

Benzarti, H. (2010). «L'entrepreneuriat au cœur de la formation universitaire ». *La Presse Economique* (April 4, 2010). Tunisie.

Cadix, A. (1982). *Gérer l'innovation technique : un nouveau projet pédagogique* [Managing technological innovation : a new educational project]. Groupe de Travail Gestion-Technologie. Paris : Fondation nationale pour l'enseignement de la gestion des entreprises.

European Commission-OECD & European Training Foundation (2008). *Report on the implementation of the Euro-Mediterranean Charter for Enterprise (MED Charter)- 2008 Enterprise Policy Assessment*. EC-Luxembourg.

Jemni, M. (2008). *Entrepreneurship Education in Tunisia*. Presentation made at the UNESCO Inter-Regional Seminar on Promoting Entrepreneurship Education in Secondary Schools (11-15 February 2008). Bangkok, Thailand.

Investir en Tunisie, Magazine Economique (2009). *Développer l'esprit d'entreprenariat en Tunisie: Intérêt majeur du programme «Injaz»*. Retrieved from: (April 22, 2010) http://www.investir-en-tunisie.net/index.php?option=com_content&task=view&id=726&Itemid=164

Ministry of Education and Training (2008). *The Development of Education: National Report - 2004-2008*. Tunis, Tunisia.

Ministry of Education (MoE) (2002). *La nouvelle Réforme du Système éducatif tunisien: programme pour la mise en oeuvre du projet "Ecole de demain" (2002-2007)* [The new education reform in Tunisia, Program for the implementation of the project "School of Tomorrow" (2002-2007)]. Tunis, Tunisia.

Ministry of Education and Training (2009). *Statistics of Education and Training, Report of the Tunisian Ministry of Education and Training for the 2008-2009 school year*. Government of Tunisia, Tunis.

Ministry of Education and Training (MoET) (2002). *Loi d'Orientation de l'Education et de l'Enseignement Scolaire. Loi no. 2002-80 du 23 juillet 2002*. [Orientation law no. 2002-80 of 23rd July 2002 relative to education and school teaching] Tunis, Republic of Tunisia.

UNESCO (2007). Preliminary version of UNESCO National Education Support Strategy (UNESS) for Tunisia. Paris: UNESCO

UNESCO International Bureau of Education (UNESCO-IBE) (2006). *Principles and Objectives of Education in Tunisia, Report of the World Data on Education (WDE), 6th edition, 2006/07*. Geneva, Switzerland.

3. Case Study – Oman

Al-Harhi, A.S. & Al-Jabri, K.N. (2009). *Entrepreneurship Attitudes of Secondary School Graduates in the Sultanate of Oman: implications for teacher education*. International Council on Education for Teaching (ICET), 54th World Assembly. Muscat, Oman.

European Commission (2006). *The Oslo Agenda for Entrepreneurship Education*. Conference on “Entrepreneurship Education in Europe: Fostering Entrepreneurial Mindsets through Education and Learning” held on 26-27 October 2006, Oslo.

European Commission, OECD & European Training Foundation (ETF) (2008). *Report on the implementation of the Euro-Mediterranean Charter for Enterprise (MED Charter), 2008 enterprise policy assessment*. Luxembourg: Office for Official Publications of the European Communities.

ILO (2008). *Conclusions on Skills for Improved Productivity, Employment Growth and Development*. International Labour Conference. Geneva: ILO.

ILO (2009). *Supporting Entrepreneurship Education: A report on the Global Outreach of the ILO's Know About Business (KAB) Programme*. Geneva: ILO.

Khan, G.M. & Al-Moharby, D. (2007). Towards Enhancing Entrepreneurship Development in Oman. *Journal of Enterprising Culture (JEC)*, vol. 15, issue 4, pp. 371-392.

Ministry of Education (MoE) (2009). *Basic Education: Aims, Implementation & Evaluation*. Muscat, Oman.

Ministry of Education (MoE) (2008). *Post-Basic Education Programme: Grades 11 and 12*. Muscat, Oman.

Ministry of Education (MoE) (2007). *Mid-term Evaluation Report on Education For All (EFA)*, requested by UNESCO. Muscat, Oman.

Ministry of Higher Education and Ministry of Education (2006). *A Summary of: The Strategy of Education in the Sultanate of Oman (2006-2020)*. Muscat, Oman.

Ministry of Manpower (2009). *Degree Audit for Colleges of Technology*. Muscat, Oman.

Ministry of Manpower (2009). *Degree audit for HRM, Colleges of Technology*. Muscat, Oman.

Ministry of Manpower (2008). *Strategic Plan for Colleges of Technology (2008-2012)*. Muscat, Oman.

Ministry of Manpower (2007). Minutes of Board of Trustees of Colleges of Technology. Muscat, Oman.

Ministry of National Economy (2009). *Statistical Year Book 2009*. Muscat, Oman.

UNESCO & ILO (2006). *Towards an Entrepreneurial Culture for the twenty-first Century: Stimulating Entrepreneurial Spirit through Entrepreneurship Education in Secondary Schools*. Paris: UNESCO publication.

Nizwa College of Technology (2009). *Guide to Business Simulation Centre*. Business Studies Department. Directorate General of Technological Education. Ministry of Manpower, Muscat, Oman.

Nizwa College of Technology (2009). *Know About Business (KAB) Delivery Plan*. Business Studies Department. Directorate General of Technological Education. Ministry of Manpower, Muscat, Oman.

Shell Development Oman (2009). *Shell Oman Career Awareness (CAP) Programme*. Mina Al-Fahal, Muscat, Oman.

Further reading

UNESCO activities on entrepreneurship education:

www.unesco.org/en/secondary-education/entrepreneurship-education.

4. Case Study – Egypt

Badawi, A. A. (2007). *Developing Arab Women's Capacity as Employers*, a paper presented to the 2nd Arab SME Forum of 22-24 May 2007. Tunis: Arab Academy for Banking and Financial Sciences. (in Arabic)

Badawi, A. A. (2006). *A Mechanism Linking SME loans to Entrepreneurial Training to Enhance Sustainability*, a paper presented to the 1st SME Forum of 25-27 April 2006. Damascus, Syria: Arab Academy for Banking and Financial Sciences. (in Arabic)

Badawi, A. A. (2006). *Difficulties Facing Women in Education and Training*, a paper presented in the joint ALO-Ministry of Employment. Tunis, Tunisia. (in Arabic)

Dyring, J. C. & Rezende, T. L. (2009). *Boosting employment through Small Enterprise Development*. ILO-Geneva, Switzerland.

Egyptian Incubators Association & Social Fund for Development (2005). *Entrepreneurship Development Course (EDC)*, a series of specialized booklets. SFD-Cairo: Third Edition. (in Arabic)

Dejardin, M. (2009). *New Economics Papers Entrepreneurship 2009*. Namur : Facultés Universitaires Notre-Dame de la Paix.

Egyptian Social Fund for Development (2008). *SFD's Achievements in the Presidential Programme September 2000- September 2007*. SFD-Cairo. (in Arabic)

Egyptian Social Fund for Development (2008). *Annual Report 2007*. SFD-Cairo.

European Commission (2006). *The Oslo Agenda for Entrepreneurship Education*. Conference on “Entrepreneurship Education in Europe: Fostering Entrepreneurial Mindsets through Education and Learning” held on 26-27 October 2006, Oslo.

European Commission-OECD & European Training Foundation (2008). *Report on the implementation of the Euro-Mediterranean Charter for Enterprise (MED Charter)-Enterprise Policy Assessment*. EC-Luxembourg.

Government of Egypt (2004). *Executive Regulations of the Law on the Development of Small Enterprises Promulgated by Law No. 141 Of 2004, 8 July 2004*. Cairo, Egypt. (in Arabic)

Hattab, H. (2008). *Egyptian Global Entrepreneurship Report for 2008*. Department of Business Administration, Faculty of Business Administration, Economics and Political Science. El Sherouk: British University in Egypt.

ILO (2009). *Supporting Entrepreneurship Education: A Report on the Global Outreach of the ILO's Know About Business Programme*. ILO-Geneva.

ILO (2008). *Conclusions on Skills for Improved Productivity, Employment Growth and Development*. International Labour Conference. Geneva: ILO.

National Center for Educational Research and Development (2007). *Mid-term EFA Evaluation Report (2000-2007)*, a report presented to UNESCO. NCERD-Cairo.

Social Fund for Development (2008). *Annual Report 2007*. SFD-Cairo.

UNESCO (2008). *UNESCO National Education Support Strategy (UNESS): Republic of Egypt*. In collaboration with UNESCO Offices in Beirut and Cairo. UNESCO-Beirut

UNESCO / ILO (2006). *Towards an Entrepreneurial Culture for the Twenty-first Century: Stimulating Entrepreneurial Spirit through Entrepreneurship Education in Secondary Schools*. UNESCO-Paris.

Ministry of Finance (2004). *Small and Medium Enterprise (SME) Development Law No. 141/2004*. Governmental Printing House-Cairo. (in Arabic)

Further reading

Summaries of EU legislation for business environment: http://europa.eu/legislation_summaries/enterprise/business_environment/index_en.htm.

UNESCO activities on entrepreneurship education: www.unesco.org/en/secondary-education/entrepreneurship-education/.

5. Regional Synthesis Report

Al-Ghassani, A. (2010). *Entrepreneurship Education in the Arab States: Case Study on Oman*, a draft report submitted to UNESCO-UNEVOC Centre, Bonn.

Badawi, A. (2010). *Entrepreneurship Education in the Arab States: Case Study on Egypt*, a draft report submitted to UNESCO-UNEVOC Centre, Bonn.

Jemni, M. (2010). *Entrepreneurship Education in the Arab States: Case Study on Tunisia*, a draft report submitted to UNESCO-UNEVOC Centre, Bonn.

Masri, M. (2010). *Entrepreneurship Education in the Arab States: Case Study on Jordan*, a draft report submitted to UNESCO-UNEVOC Centre-Bonn.

International Labour Organization (2009). *Supporting Entrepreneurship Education: A Report on the Global Outreach of the ILO's Know About Business Programme*, ILO-Geneva.

United Nations Development Programme (2009). *Arab Human Development Report 2009: Challenges to Human Security in the Arab Countries*. UNDP Regional Bureau for Arab States-Beirut.

World Economic Forum (2009). *Educating the Next Wave of Entrepreneurs: Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century*. Switzerland.

International Labour Organization (2008). *Conclusions on Skills for Improved Productivity, Employment, Growth and Development*, ILO-Geneva, June 2008.

Kwiatkowski, S. and Sharif, N. (editors) (2005). *Intellectual Entrepreneurship and Courage to Act, Leon Kozminski, Kozminsk Academy of Entrepreneurship and Management*, Warsaw. Poland.

UNESCO / ILO (2006). *Towards an Entrepreneurial Culture for the Twenty-first Century: Stimulating Entrepreneurial Spirit through Entrepreneurship Education in Secondary Schools*. UNESCO-Paris.

Annexes

(1) Research Team and UNESCO Coordination Team

The Consultants/ Researchers Team for Component 1 of the project (2009-2010) are:

Name	Title	Institution/ Country	E.mail
Dr. Munther Masri	President and Team Leader	NCHRD-Jordan	mmasri@nchrd.gov.jo
Dr. AbouBakr A. Badawi	TVET-HRD Adviser	Egypt	aboubakrb@gmail.com
Dr. Ahmed Al-Ghassani	Dean	Muscat College of Technology-Oman	ahmed.alghassani@hct.edu. com
Dr. Mohamad Jemni	Professor of ICT	ESSTT-Tunisia	mohamed.jemni@fst.rnu.tn

UNESCO Coordination Team is:

Name	Title	Division/Unit	E.mail
Ms. Maja Zarini	Head of Communications	UNESCO- UNEVOC Centre, Bonn	m.zarini@unesco.org
Dr. Sulieman Sulieman	Programmeme Specialist:STV	UNESCO-Beirut	s.sulieman@unesco.org
Dr. Hanan Al-Omari	Project Officer	UNESCO-Amman	h.alomari@unesco.org

(2) Acronyms

ACHRD	Arab Centre for HRD
AfDP	African Development Bank
AFESD	Arab Fund for Economic and Social Development
ADF	Abu Dhabi Fund
ALO	Arab Labour Organization
BTS	Tunisian Bank of Solidarity
CGPA	Cumulative Grade Point Average
CIDA	Canadian International Development Agency
CBD	Chinese Bank for Development
DANIDA	Danish International Development Agency
EC	European Commission
EFA	Education for All
EPE	Entrepreneurship Education
ESD	Education for Sustainable Development
ETF	European Training Foundation
EU	European Union
FAID	Fonds d'Aide Internationale au Développement
GCC	Gulf Cooperation Council
GEM	Global Entrepreneurship Monitor
GTZ	German Agency for Technical Cooperation
IDB	Islamic Development Bank
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
ISCED	International Standard Classification of Education
JBIC	Japanese Bank for International Cooperation
JICA	Japanese International Cooperation Agency
KAB	Know About Business
KFAED	Kuwaiti Fund for Arab Economic Development
KfW	German Bank for Development
MOE	Ministry of Education
MOET	Ministry of Education and Training
NGO	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
PISA	Programme for International Student Assessment
SFD	Social Fund for Development
SfD	Saudi Fund for Development
SME	Small and Medium Enterprise/Small and Micro Enterprise
TEA	Total Entrepreneurship Activity
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	UNESCO-UNEVOC International Centre for TVET-Bonn
WB	World Bank

