



Libya – Building the Future with Youth

Challenges for Education and Employability

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Preface

by Siegfried C. Leffler, Dagmar Awad-Gladewitz

Following the downfall of Libya's former dictator, the country's transitional government faces a difficult legacy. The peaceful reconstruction of the country, which has a population of around 6 million people, will depend to a large degree on how quickly it succeeds in involving its youth in the national dialogue on broad and fundamental social change processes. This will provide these young people with the prospects for employment and income that they have been demonstrating for since February 2011 – first of all in Benghazi and Misrata, then in Al-Zawija and Tripoli. They were calling for the resignation of the autocratic ruler, democracy, liberty, and participation, and protesting against corruption and the widespread unemployment that persisted despite the economic boom. Until the revolution, the Libyan state was drawing revenues of around USD 100 million a day from oil and gas business. Although it was investing considerable sums in the economy and in the social sectors of education and health, ultimately this was not very efficient. The younger generation were not being suitably prepared for the demands of the labour market in a globalised world. In Libya's training institutions, skills that were in particularly high demand in the private sector were being developed and transferred on a rudimentary basis only. This was one of the reasons why some 5 million foreign workers were employed in services and other sectors of the economy, even as youth unemployment alone stood at an estimated 30 per cent.

Restructuring the entire education system – including preschool education, general education, technical and vocational education and training, higher education and research – is certainly one of the most difficult challenges in the transformation process. It must be tackled if the serious failings of education policy in recent decades are to be overcome. Libya is among those countries in the Arab region that can boast an almost 100 per cent track record in enrolling boys and girls and helping them complete their nine years of basic schooling, thus achieving the international goal of Education for All. Although secondary education options (three years of specialised secondary education or vocational training) did exist for the vast majority of young people, usually followed by a university degree, only rarely did the qualifications acquired enable the young people concerned to embark on the careers that they had hoped for. This was due in part to the lack of job opportunities, but to a greater extent to the considerable deficits in the quality of the education and training provided. Libya is therefore one of a number of Arab countries – from the Gulf to North Africa – that needs to invest massively in educational reforms. Essentially this will involve changing curricular content, as there is a need to strengthen and promote mathematics, the natural sciences, the use of IT and foreign languages. It will also be necessary to change the way teachers teach and students learn, and to accommodate all the consequences this will have for teacher training at all levels of the education system. Here too it will be necessary to develop critical thinking, which has been called for emphatically in the recent past, not least since publication of the Arab Knowledge Report in 2009.

For the first time, between April 2007 and December 2010 GIZ International Services was directly commissioned by Libya's then ministry of education (the General People's Committee for Education) to implement an education project that aimed to raise the quality of primary education and specialised secondary education. The project focused on improved teacher training, quality assurance in education, and a stronger link between education and labour market needs. In this context a new teacher training model was developed to promote interactive teaching and learning in primary schools, and foster cooperation both among teachers, and between teachers and professional consultants. Key elements of this model were thorough basic training for teacher trainers, and the introduction of quality standards for teacher training. In pilot schools the measures focused on pupil-centred teaching methods that included the use of teaching aids in the classroom, and on a system of continuous in-service teacher training. Furthermore, extensive learning performance tests were carried out in all parts of the country based on the international comparative studies TIMSS and PIRLS. For the first time, it was then possible to assess the actual capacities of school children making the transition to secondary education. In this context the project was able to provide Libya with access to international education institutions. Links to professional institutions in Germany were also established in order to facilitate cooperation for knowledge transfer.

The two studies presented here were based on empirical field research work and were prepared as part of the Education and Labour Market project. Their results were designed to support the then ministry of education in its strategic decision-making, particularly with respect to orienting secondary education toward jobs and labour market

needs. The results and recommendations of the two studies were presented and discussed at workshops held in February 2010, to which representatives of the private sector were also invited. The initial positive feedback was followed by a major setback: the ministry of education stated that it was not yet ready to make far-reaching changes to its policy. Now, however, the situation has changed very significantly, and the prospects for sustainable and successful educational reform are good, provided that Libya achieves a peaceful transformation.

Our aim in publishing these two studies, prepared by Dr Adele M. E. Jones and Prof. Dr Gerald Braun, is to make available to a broader readership outside of GIZ, key basic findings on the situation of the younger generation within and beyond the education sector, immediately prior to the change of regime. We see this as a contribution to active knowledge management.

The studies are based on innovative strategies that had not been applied in Libya up to that point. These involved surveying the opinions and attitudes of various social groups (schoolboys and schoolgirls themselves, their parents, the staff of general schools, vocational schools and universities, and employers and employees in various sectors of the economy).

This made it possible to analyse the close links between education, employment and the labour market from a variety of stakeholder perspectives. A study was conducted of the job expectations of girls and boys in grades 9 and 12, and boys and girls attending vocational schools, bearing in mind that in the Libyan education system pupils specialise from grade 10 upward. These expectations were then compared with the actual employment situation. The study was conducted by Dr Adele M. E. Jones, an Australian education expert with a proven track record based on more than thirty years of in-depth experience in international cooperation for education.

The labour market study revolved around a comparison of supply and demand. It focused on the self-assessment of key competencies that young people had acquired in various educational and training institutions. These were compared with the competencies in demand among businesses and institutions in economic growth sectors in Libya. This study was conducted under the responsibility of Prof. Dr Gerald Braun, Managing Director of the Hanseatic Institute for Entrepreneurship and Regional Development (HIE-RO) of the University of Rostock. His expertise is also based on decades of active involvement in development cooperation and research.

In our view, the particular value of these two studies lies in the fact that they are the result of interdisciplinary teamwork involving close and daily cooperation between international experts and a considerable number of Libyan experts.

Eschborn, November 2011

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We would like to express our thanks and great respect for our Libyan colleagues. They include: Mr Abdallah Milad Altagiuri, Mr Mohamed Ali Alyagubi, Mr Mustafa Altreki, Dr Aldabar Shukri, Dr Ibrahim Abdelhadi, Mr Abdulrazag Khalaf, Dr Luay Almasrif, Mrs Salma Nagi, Mrs Thuraya Alshami and Mr Hussein Alhasheen. These are just some of the names of all those involved in the fieldwork, analysis and evaluation of the results.

Without their frankness, their critical assessments of the situation in Libya and their highly motivated contributions, it would not have been possible to successfully conduct either the project in general, or these two studies in particular. Through them we gained invaluable insights, not only into the education sector, but also into their lives and their hopes.

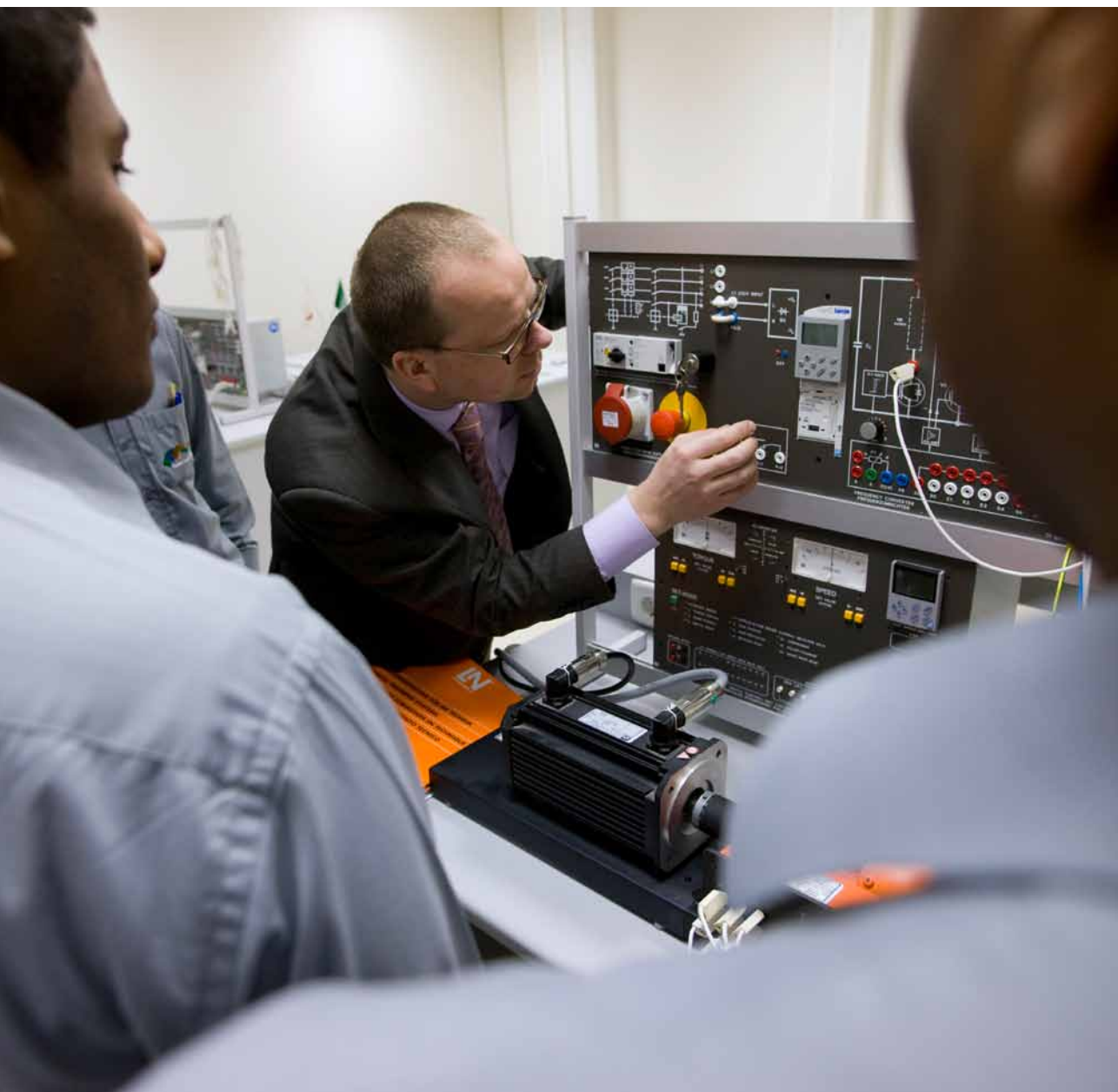
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Youth career prospects in Libya

From Dr. Adele M.E. Jones



1. Introduction

Background and purpose of the study

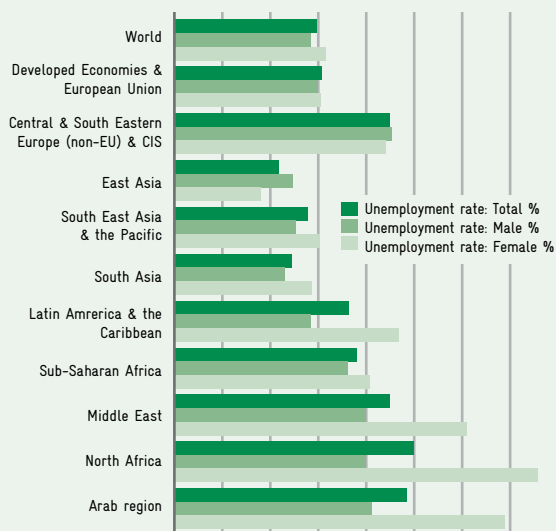
This study was commissioned by the General People's Committee for Education and Scientific Research in Libya as part of the Libyan-German partnership project 'Improving the quality of Basic and Specialised Secondary Education'. It was included in the focus on strengthening the linkages between the education system and society needs, in particular, the labour market.

The education system in Libya faces many challenges and has been described in 'Libya at the Dawn of a New Era: Improving Competitiveness in the Global Economy' (General Planning Council of Libya 2006) as disconnected from the demands of the job market which needs a 'job-ready' workforce. As economic experts have stated, there is an urgent need to develop a human resources strategy in Libya and to review the education system so that a better match can be made between skills acquired in formal education and the requirements of a modern economy.

This study was planned in late 2008, with the public presentation of the final report made to the General People's Committee for Education and Scientific Research in February 2010. Research was conducted in Benghazi, Merqeb, Sabha and Tripoli with parents and students at grade 9 and 12 level, and grade 12 students in Misrata - all regions which are crucial in the current political context. Altogether, close to 4,000 people participated in the study, approximately 3,500 of them students and the others parents, educators, and education officials. Two chapters in the report summarise specific findings related to grade 9 and grade 12.

The research has produced some conclusive results, briefly noted here at the outset. While results cannot claim to be representative of the whole of Libya, they show trends which are significant considering the scope of the study sample. There is a clear pattern of students in their final year of secondary education preferring to work in government/public domains, which is of concern considering that Libya already offers sixty-six per cent of all employment to its citizens in the public sector - one of the highest in the MENA region. This has implications for a country looking more and more to privatization and entrepreneurship for its youth. Parents and students at all levels repeatedly com-

Figure 1: Unemployment rates in the Arab region



Source: ILO (2009) Growth, employment and decent work in the Arab region: Key policy issues.

mented on the uncertain outcome of studies. While many believed that higher qualifications would give greater security in terms of finding employment, many others believed that the only hope for sons was to follow a vocational trade, hence the importance of vocational education as the best hope for the future.

Gender issues are highlighted in chapter 5 which presents comparative findings from the study. We make note here that though significant numbers of female students face a future in teaching, there were concerns that this is in a state of flux, hence planning for the future is particularly uncertain for female students. In spite of the fact they are actually well represented in education, women are not well represented in diverse fields of employment in Libya.

The type of secondary education was a constant theme in the research and is also discussed later in the chapter 5 on comparative findings. Higher qualifications seemed one answer but parents often reported that their children were not interested in pursuing further studies when employment prospects seem bleak. Education is considered in the context of vocational education and the current specialised secondary education where students are 'streamed' into rather narrow specialisations at the end of grade 9 which some think is working against their future employment prospects rather than optimising them. The rationale and sound educational practice behind the introduction of specialisations was absolutely unclear, especially as students entering or completing university, and entering and working in fields related to their studies is not certain.

To set this study in context, we summarise secondary education in various countries of the MENA region. Table 1 encapsulates secondary studies directly oriented towards employment. How relevant these studies actually are for practical employment, and how much they are focused on needs of the job market, however, is beyond the scope of this study.

The changing nature of education and work

At the time of this research, it was clear that youth unemployment was a serious issue. International Labour Organisation figures in 2009 showed unemployment to be serious in the MENA region. By 2011, ILO figures have unemployment among Arab youth as the highest in the world - (23.6 per cent in North Africa) compared with a world average of 12.6 per cent (ILO, 2011). The UN Expert Group meeting paper, 'The employment dimensions of on-going socio-political events in the Arab region' (Fares, 2011) specifically states that Libya's unemployment rates exceed those of Egypt.

During 2011, we have seen uprisings throughout the MENA region, which clearly are related to this issue. As Schwetmann (2011) reported on behalf of the ILO 'the high incidence of youth unemployment, compounded by the rapid growth of the labour force and worsened by the skills mismatch' is one of the root causes of the upheaval. Adams and Winthrop (2011) agree that while the uprisings cannot be attributed to a single factor, a tipping point is the youth bulge and youth unemployment, so that the relevance of education must be considered. Our study was done without the foresight of knowing what was to come for Libya but the situation remains as delicate as it was in 2009-2010 in terms of youth unemployment.

There are many reasons for countries striving for education for all, including the assumption that education will ensure future employment. This question must be examined seriously as all countries face issues of unemployment, under-employment, and new forms of employment. Individuals and the labour market are constantly faced with change, yet many workers and graduates have never had opportunities to develop career management skills which help them adjust and cope with such workforce changes.

Table 1: Specialisations at senior secondary school in selected MENA countries

Country	Years	Type of secondary education by school and specialization type		
		General	Technical	Commercial
Bahrain	3	Specialisation in science-based or literacy-based subjects	Core academic subjects, e.g. technology and practical work, mathematics, science, technical drawing and workshops – Some taught in English	Core academic subjects + specializations: accounting, math pure & financial, economics, practical secretarial, typewriting
Egypt	3-5	General secondary (3 yrs), Usually only those graduating with the General Secondary Ed. Cert can go to university	Technical secondary (3-5yrs), Technical + Experimental schools: languages, education, physical ed. Sts with advanced Tech. Dip. & those with over 75% go to High Ed.	
Jordan	2 post gr. 10	Comprehensive secondary stream: Academic Academic: scientific or literacy specialisations	Comprehensive secondary stream: Vocational Vocational: industrial, home economics, commercial, agriculture, nursing, hotel management.	Applied secondary stream
Lebanon	3	General Education Secondary Humanities, economics, life science, science	Technical secondary Approximately 55 different fields of study	
Libya	3	Specialized Secondary Choose 1: Basic sc., Econ, sc., Engineering sc., Life sc., Language, Social sciences, 1st year General (then branch)	Vocational Intermediate & Comprehensive Career Centres, Choose one of multiple streams	
Morocco	1+2	General Compulsory subjects + optional. Multiple streams	Technical & Professional Compulsory subjects + optional Multiple streams	
Palestinian National Authority	2 post gr. 10	Academic Humanities, scientific	Technical and Vocational Engineering, Technol., others	Religious
United Arab Emirates	1+2	1st year general subjects plus stream Arts or Science Arts: (history, geog., sociology, economics) or Science: (physics, chemistry, biology, geology)	Vocational: agricultural, commercial, & technical	Religious: (same curriculum secondary but more rel. subj.)
Tunisia	1+3	Stage 1 (1 year): General education Stage 2 (3 years): Pre-specialized education (6 areas)	Experimental: Foreign lang., Economics Arts: Maths, Technology sciences, Humanities management	

Source: ILO (2009) Growth, employment and decent work in the Arab region: Key policy issues. Note: Prepared by the author.

In 2007, the World Bank Education Sector Strategy had reinforced the need to expand job opportunities to keep pace with rapidly expanding populations and to ensure regional prosperity and stability. Looking at Table 2 with the distribution of labour force and the unemployed according to the completion of secondary education or higher, we are clear why career aspirations, expectations, and educational needs of secondary school students have received more focus in the MENA region of late. The events of 2011 make this even stronger.

Table 2: Secondary and higher education and unemployment in selected MENA countries

Country	Labor force with secondary education or above	Unemployed with secondary education or above
Jordan	–	43,6
Tunesia	42,6	42,5
Egypt	–	80,0
Bahrain	24,0	59,0
Algeria	–	37,8
Morocco	16,4	29,6
Oman	–	39,7

Source: Adapted from World Bank Education Sector strategy (2007).

Considering research on similar topics in the MENA region, we note Qatar recently published a short study on secondary school students' career aspirations (RAND, 2008). In the UAE a longitudinal study is underway with grade 4 and 8 students to encourage more boys into teaching (Hartley, 2009). In 2006, the World Bank supported a study 'Perceptions and priorities of youth in the Middle East North Africa Region' which reported on the issue of career expectations and needs (World Bank, 2006). Small surveys have been conducted on career aspirations with university students in Kuwait and in the UAE looking at

transition of young women from study to the workforce. A Jordan conference reported on 'Youth Unemployment in the Arab States', discussing in some depth the issue of female youth transition to work following completion of their education (ILO, 2004). World Bank studies include 'Public Policies for Career Development. Case studies and emerging issues for designing career information and guidance systems in developing and transition economies' (Watts and Fretwell, 2004) and the European Training Commission supported a study on Career Guidance in 10 countries including Algeria, Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia, the West Bank and Gaza (Sultana and Watts, 2008).

We find countries focusing more on what can be done at school level to improve prospects of employment through education, skills and values geared towards social and economic needs, and focusing more on occupational trends and opportunities emerging in the changing modern workforce.

What has not been available for Libya beyond limited (and questionable) statistics is first-hand information and primary data from Libyan youth and their parents. This study is significant as it focuses on what young Libyan people and their parents think at this critical point in time.

2. Methodology

Scope of the study

The research focused on four shabiyas (Benghazi, Merqeb, Sabha and Tripoli) for grade 9 (Year 3 Preparatory schools), and five shabiyas (with the addition of Misrata) for grade 12 (Year 3 Secondary schools).

In Libya, Basic Education officially covers grade 1-9 and is comprised of Primary school (grade 1-6) and Preparatory school (grade 7-9). Secondary school covers the last 3 years of education. In this study we use the terms grade 9 and grade 12 to avoid confusion as we sometimes compare the two cohorts of students and their opinions together. These two grades were selected for the research because they represent the last year of each of the two levels of schooling in Libya. In Vocational Intermediate Centres and Comprehensive Career Centres, the last year of training is referred to as Year 3.



As Table 3 shows, information was supplied from 3,420 students participating in provision of information through questionnaires. Another 120 students were involved in pilot questionnaires, in total - 3,540 students. Focus Group Discussions

Table 3: Number of respondents/interviewees contacted

Country	Questionnaire students	FGD students	FGD parents	Questionnaire students	FGD students	FGD parents	FGD soc. workers
Pilot Schools	72			48			
Benghazi	420	37	28	450	44	29	10
Misrata	-	-	-	60	18		
Merqeb	430	38	30	425	47	11	6
Tripoli	370	35	-	355	24	-	10
Sabha	390	30	24	520	45	20	10
Participants	1610	142	85	1810	178	60	36
Focus groups				72			
Interviews				65			

We discovered during the research that actually, at both terminal points, decisions are made regarding further study and work. Plans and the factors which determine or affect these decisions are the focus of this study.

(FGDs) were held with 320 students and 145 parents. In addition, interviews were done with school social workers in some schools, and FGDs held with social workers representing a larger number of schools in given regions.

In addition, interviews were held with senior educational officials, administrators/managers, and planners from Departments of Basic- and Secondary Education (at central and shabiya levels), Inspection, and Curriculum, with Head Teachers of Basic- and Secondary Schools (government and private) in various shabiyas, Directors and staff of Vocational Intermediate Centres and Comprehensive Career Centres, and with university staff from Departments of Social Work. The environmental and economic situation of the area surrounding each school was summarized with the assistance of Master Trainers and FGD facilitators.

Characteristics of schools and participants

Government schools and a small number of private schools are included in this study. Schools are considered as urban if they are in the main city or major towns of the shabiya, rural if they are in outlying districts or small towns (mantaqa), or villages (qarya). Selected schools cover coastal (sahal) areas, agricultural and pastoral farming areas, and desert (sahara) areas. Vocational Intermediate Centres were also included as an alternative form of secondary education.

Grade 9 research covered 43 Basic Education schools -1,610 students completed questionnaires and students in 19 schools were involved in FGDs. Parents of grade 9 students in 10 schools were involved in FGDs. For the grade 12 research, 1,810 questionnaires were administered in 51 Secondary Specialised schools and 24 Vocational Intermediate schools. FGDs were conducted with final year students in 24 Secondary Specialised schools plus Vocational Intermediate Centres, and with parents of grade 12 students in 13 schools.

Of the total grade 9 students who completed questionnaires, 52 per cent were female and 48 per cent male. Of the grade 12 students completing their questionnaire, 56 per cent were female and 44 per cent male. Benghazi had the highest number of participants. In FGDs Grade 9 included 51 per cent male- and 49 per cent female students. Grade 12 included 54.5 per cent male and 45.5 per cent female students. More than one third of grade 9 students in the study were 13 or 14 years of age. Nearly seventy per cent of the grade 12 students were between 18-22 years old.

Grade 12 students included in this study were selected according to their specialisation (Table 4), with a relatively even balance between specialist streams.

Table 4: Secondary students by specialisation or school type

Stream	Female		Male	
	Count	Per cent	Count	Per cents
Basic science	150	66%	76	34%
Economic science	102	43%	134	57%
Engineering science	100	43%	130	57%
Languages	211	49%	88	51%
Life science	163	61%	97	39%
Social science	134	71%	54	29%
Vocational	149	29%	214	71%
Total	1009	56%	793	44%

Parents involved in FGDs were from rural and urban areas, and from a cross section of employment areas. Around 30 per cent of them worked in the education sector as teachers, social workers, and inspectors. Approximately 9 per cent represented the security area (military and police), 10 per cent represented the business/finance area (including accounting and banking), and 8 per cent farming/agriculture, with others from the aviation field, health, law, religious, government and unskilled work. Though we attempted to have an even balance of women and men, finally discussions with fathers were more common.

3. Grade 9 Aspirations

Students' assessment of current studies

At grade 9 level, all students study the same subjects. This is the last year of their Basic Education, after which they move on to secondary specialised schools or to vocational schools. Education at both secondary specialised and vocational school level lasts for three years. If students go to secondary specialised schools, they choose or are placed in one of six streams, i.e., Basic Science, Economic Science, Engineering Science, Languages, Life Science, or Social Science. Vocational Intermediate Centres teach a range of technical subjects, while Comprehensive Career Centres have more recently focused principally on teaching computer studies. Over the years, there have been many changes in regard to secondary school divisions or 'streams', including a much simpler Arts/Humanities or Mathematics/Science division. Previously, students actually moved into streams after they had studied common subjects in grade 10. The current streaming in secondary specialised schools was amended to 6 streams in 2003.

To form a picture of what they think about their learning and things which ultimately impact their career or career aspirations, grade 9 students were asked general questions about their favourite or best subjects, reasons for their good marks in these subjects, and whether they received extra tuition in any subjects. In FGDs, smaller number of students commented on aspects of school life which they considered would improve their learning.

Students were asked about subjects in which they receive highest results. Overall, 30 per cent of students said that their highest marks were in Arabic language (30 per cent), with biology coming next (28 per cent of students). Islamic Studies was in third place (22 per cent of students), followed by mathematics (21 per cent) and physics (21 per cent), and chemistry and history, both with 20 per cent.

They gave various reasons for their success in their three top subjects. Overwhelmingly, the main reasons for good marks were: their own extra study and their own application, the fact that they liked the subject, and good teaching. Sixty-two per cent attributed good marks to their own efforts such as extra study and homework.

Other reasons given included: good teaching methods and good teachers (noted by 48 per cent of students). Students occasionally gave examples of what they considered good teaching, such as teachers' preparation for the class, and good explanation during lessons.

Eighty-four per cent of students indicated that they liked science or liked it very much. These findings are important because they show that a significant number of students liked science subjects yet some of the current specialist areas offered at secondary school level offer no mathematics or science subjects at all, a shortcoming which is commented on by some disappointed grade 12 students studying in streams which have no math-

ematics. In addition, no secondary school specialism offers all four natural science subjects in depth, e.g., Life Science has biology and chemistry but no physics except in grade 10. Basic Science does not have biology. This could mean that students in certain specialist areas are no longer able to study a particular science subject which they like or in which they succeed.

Tuition as another reason for good marks is very important. It is most significant that 64 per cent of these grade 9 students were receiving extra tuition outside school hours, especially for English language, mathematics and science subjects. Many parents reported tuition as a great burden especially when they had several children to educate. Reasons for tuition given by students were principally that they wanted to gain excellent marks in the subject (36 per cent), or that they had personal learning problems such as not understanding (11 per cent) or bad marks (10 per cent).

When analyzing these responses, we need to consider cultural issues here. Students probably did not feel it is appropriate to blame teachers for their lack of understanding and poor results, but rather blamed themselves. Keeping in mind that this survey was conducted in February 2009 only half way through the academic year, we can conclude that the tuition was not the 'last minute' rush before the exams. Students seemed very concerned that they should get the highest marks possible at the end of grade 9 as this would determine their specialisation in secondary school studies.

Reasons stated for tuition need to be examined and discussed at a much deeper level by educationists, researchers and planners in Libya. Studies in other countries have shown that an 'industry' or parallel form of education exists around this after-school tuition, often involving many regular class teachers.

Students' secondary and post-secondary aspirations

In order to see if their ideas about secondary school studies are related to their career aspirations, students were asked about specific study plans after grade 9, and reasons for their preferred choice at secondary level.

Close to one third of students preferred the Life Science stream for study after grade 9, while Engineering Science was also a popular choice for 22 per cent of students. Economic Science (12 per cent), Languages (10 per cent) and Social Science (9 per cent) came well behind the two favourites. Basic Science was preferred by less than one per cent of students, closely followed by vocational studies (chosen mainly for computer studies) and special institutes (e.g., oil, health/nursing, teaching, and art - many of which have been phased out at this level but which students seemed not to know).

The reason for the lack of popularity of Basic Science may be because students did not see a definite career related to this study. We later find relatively few students noting jobs in the science area. Either they were not aware of jobs related to this field, or they did not like the perceived jobs, or there may not be a wide variety of jobs and careers in the science area in Libya.

The most common reason given for the selection of the area in which students thought they would study after grade 9 was related to their personal attraction to the study, i.e., they like or enjoy studying in this area (43 per cent), while another 14 per cent give reasons related to this such as: it is their dream, it is a good area to study, it is easy, and they have ability in the area in which they want to study in secondary school. Only 21 per cent preferred the specialisation because it is seen as the way to go for future work, and 4 per cent because of future study. Two per cent prefer it

because of the good salary in related employment. Five per cent of students said that they wanted the particular area of study because it could help society or people - something emphasised later when career choices were stated. Merely one per cent said that families wanted them to study the specialisation - something which contradicts a common impression that families have a strong influence in the decision about what students should study.

In discussions with students and parents we specifically considered vocational intermediate centres as a choice beyond grade 9 and found that while students seemed to be unclear about the type and purpose of vocational training, parents were much more in favour of it. A large group of fathers in a rural Benghazi school for example, were strongly of the opinion that a vocational centre in the vicinity would help them tremendously.

My son wants to go to Vocational Intermediate... We feel a vocational centre would be good here... The boys can get jobs after this type of school... Vocational schools are not a problem, they will get us jobs... We know many who work with us afterwards. Most get work after they leave... We can get government jobs education and health, or technical work in maintenance but the problem is that the payment then is only at level 5 or 6 even if we are working with the government... It is important to support these vocational schools because we think they are necessary. I believe vocational training is needed in society and there are jobs. I know many graduates. They get jobs in the River Project, and oil fields.

Likewise, fathers in a Merqeb school strongly favoured establishment of vocational centres in the area.

I think best thing is vocational schools because if the government takes care of these and if my child does electricity or mechanics, he will find a job. Most boys here have only grade 9 because there are no vocational schools in the area so they do the

same as some fathers here... Vocational education is a very good idea because some students don't just like to study theoretically, they have abilities and they want to practice them so we want these places to be better prepared. The problem is people who are teachers. They are not qualified enough so students just study theoretically not practically, and the second thing is there is no monitoring of these places.

At another Merqeb school, there was some disagreement about the benefits of vocational education. One man whose job was in the education sector argued:

No I don't agree with them, the job comes with the one who graduates from these institutes, e.g., electricity, his job comes with him... The problems is, they just send bad and failed students to these Institutes. We can't find in our society any graduates from these Institutes who are good and successful in their careers. Even fathers now say I have a failed son, where can I put him? The answer will be 'in Vocational Institute'.

In Sabha, there were different opinions about the vocational school option.

Why do we say they are not good - because even at home these boys can't repair electricity or repair things. So far in society, people who work in careers related to vocational schools are not in respected careers.

However, in response to a question about how these graduates compared with university graduates in the workplace, one engineer in a FGD reported:

Yes, yes we have many of these graduates - both kinds. Those working with us now, graduating from vocational schools need only a kind of refreshing or in-service training and if this would be done, they would perform even better than university graduates. Even those graduating from university are unable to write a proper sentence!

While there was much agreement that vocational education could, in principle, be a good option for students, especially to prepare them for work, there were also strong opinions in many places, that vocational centres needed much improvement in order to be effective.

Almost 95 per cent of Grade 9 students thought they would study after grade 12. Half said they would study at university, 18 per cent at a higher institute and close to 17 per cent at a private university or private institution. Eight per cent said they would study in the army/police college and just over 5 per cent would train in companies. Higher studies beyond grade 12 were seen as important because without them 60 per cent of students believed that they could not get the jobs they wanted or what they referred to as 'good' jobs.

A significant 26 per cent of grade 9 students saw themselves continuing with higher studies 'because parents want it', though many did not see themselves studying full time. Forty-five per cent anticipate studying part time (overseas or in Libya) and/or working while studying - a significant number therefore, did not foresee post-secondary school life as study alone.

Students' future career aspirations

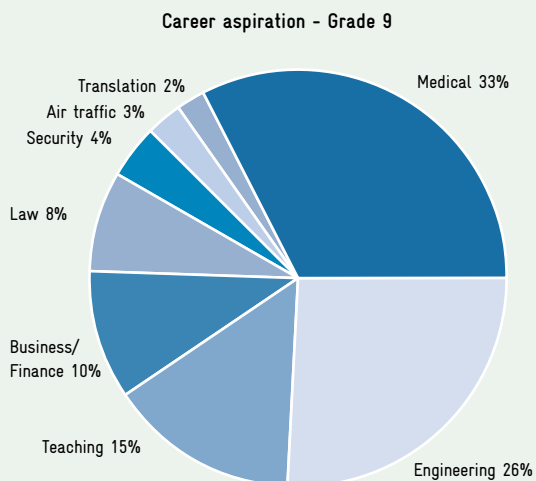
The words for career, work and job were often used interchangeably in FGDs with students, though as much as possible, we tried to keep the focus on the idea of ongoing career area rather than jobs which are changing with temporary opportunities and have little direction or planning needed. In terms of their preferred career, and the job they thought they would actually do, careers in the medical field were most popular overall (33 per cent), with engineering coming second (26 per cent). By shabbiya, medical careers were preferred mostly in Tripoli (37 per cent), followed by Merqeb (30 per cent) and Sabha (29 per cent), while in Benghazi engineering careers (30 per cent) outranked medical (28 per cent).

Teaching came third (15 per cent). The selection of teaching was in Tripoli (5 per cent), while Merqeb had the highest (21 per cent), closely followed by Sabha (19 per cent). Only 10 per cent in Benghazi selected teaching. Tripoli and Benghazi responses may reflect the wider choice of career options for urban populations.

Students' career aspirations by gender

Medicine: The preferred choice given by girls, shows medical careers in first place (47 per cent). Boys preferred engineering (43 per cent). Furthermore, looking at specific careers within these wider areas, 70 per cent of girls in the medical career area stated that they wanted to be doctors (including 11 per cent pediatricians and 4 per cent surgeons). Of those remaining in this medical choice, 12 per cent selected dentistry and 10 per

Figure 2: General career aspirations grade 9 students



cent nursing. Only 18 per cent of boys selected the medical field as their preferred career but of those who did, most wanted to be doctors (81 per cent including 14 per cent surgeons and 6 per cent pediatricians), with 17 per cent selecting dentistry and 3 per cent nursing.

Engineering: The analysis of engineering career preferences shows that of the 43 per cent of boys who would like to be engineers, almost half wanted to work in the area of oil engineering. 'I want to go to the Oil Institute in Tripoli because our future is guaranteed, then if we succeed we'll get a job'. Of the 11 per cent of girls in this survey who preferred engineering careers, only 6 per cent chose oil engineering or related work such as a geologist. This is in keeping with comments constantly made in FGDs with grade 9 students 'the desert is no place for women'. As one grade 9 female student in Benghazi stated: 'I would like to be an engineer but people think it is not suitable for women.'

In a FGD in another Benghazi school one mother said about one of her daughters:

My daughter wanted electrical engineering. I tried to advise her not to do it but she was strong and wanted it. She is doing it now at university but I think this is not suitable for women. She wanted it because it is her father's job. This formed her attitude plus she likes physics.

As another comment made in a FGD with grade 9 mothers in Benghazi explained:

My aunt was a communications engineer but now she sits at home because she couldn't get work. She applied for jobs but was told that they wanted men. These engineers work outside, work at stations and at night so women can't do it.

Construction came next among engineering careers preferred by 20 per cent of boys. It should be noted here that there seemed to be some confusion as to whether the terms construction, design and architecture were in fact similar or understood as different jobs. Certainly, this seemed to be the case with girls' responses where 18 per cent stated that they wanted to be architects, with 34 per cent noting construction. While 12 per cent of girls preferred computer engineering, only 2 per cent of boys selected this area. Both architecture and computer engineering were also common choices of grade 12 girls who aspired to engineering careers.

Teaching: Most of the 15 per cent of students indicating teaching as their preferred career noted school teaching in general, and some specifically primary school (grade 1-3). Others noted specific subject specialisations which could include any grade from 4-12. A very small number indicated a university academic career and have therefore been included in the teaching group. Many subject specialisations chosen noted teaching of English. Students who indicated translation careers have been grouped separately so that overall this group was quite low on the preferred list with 2 per cent of choices.

In terms of gender preference, girls stated overwhelmingly that there was no area in which women are unable to work, though often boys disagreed. Parents were also less positive, e.g., one mother in a Merqeb FGD describing the local situation for girls stated:

We live in Garya (village) so actually, there are traditions. For example in engineering, girls cannot study this because our traditions control us. In Tripoli girls can do any job. Some girls try to get jobs in banks and mail stations here but it is not common.

Other comments made by students showed that although girls thought they were able to do any type of work, they also believed societal attitudes and family ideas would hinder them. Male opinions ranged from conservative to quite open on this issue. Negative attitudes included the following:

Women can't work in practical science. Girls will get married, the husband will stop her because she must look after the family just teaching is OK. It is very rare if women do science. As soon as she marries she stops ... women doctors need to work night duties so her brothers and father will not allow her to work at night because women are just supposed to be housewives... women get qualifications but then they sit at home.

From responses both to the questionnaire and in FGDs, there appears to be no limits to what males can study or where they can work, though some students stereotypically saw the strengths of men in certain career areas and limited in some others, e.g., 'men can do anything but they are not good as teachers'.

Other popular careers:

Careers in the field of business and finance (including accounting, work in banks, import/export and trading, general commerce or economics) were next in overall popularity with 10 per cent of grade 9 students. This was consistent across four shabiyas, selected by 11 per cent of students in Benghazi, 9 per cent of Tripoli students, and 8 per cent of Sabha students. Merqeb scored lowest with only 4 per cent of students indicating a preferred career in this area, again reflecting lack of opportunities where students were surveyed.

Law followed with 8 per cent selection, and although more popular with girls (10 per cent) than boys (6 per cent), the reality of actual work for girls in the law field is still limited in Libya. Though figures for law studies at universities indicate high numbers of girls, the reality of later work in this field is another matter. However, among grade 9 girls surveyed, the area is popular as a way of 'helping people, helping poor people'. It is fairly significant that grade 9 students appeared positive about women working as lawyers, though grade 12 female students were rather concerned that they would not actually be able to work in the law field. At this stage, it appears that grade 9 students have either not thought through the reality of work in certain careers, or they have not been exposed very widely to such problems. Some mentioned that female relatives had studied or had certain other specialisations in law but could not find work. As one mother expressed it in reference to herself:

I stayed home after marriage but 5 years ago because I was free to work as the children have grown up I started looking for work in my area but just cannot find anything. It is difficult for lawyers [Merqeb].

Security (police and military careers) was preferred by 4 per cent (mostly boys), ranging from 3 per cent in Tripoli to 6 per cent (the highest) in Merqeb. Alongside this, 3 per cent (mostly boys) wanted careers in air traffic (usually as pilots). Again this was similar across all shabiyas.

In terms of type of employment, government appointments are definitely seen as the preferred place of work (chosen by 45 per cent of students). Work in private companies is also popular (chosen by 36 per cent), and self-employment the choice of 16 per cent of students.

An important finding from the research is that students seemed to have little idea about what the careers to which they aspire actually entailed, except in those cases where family or close friends were doing similar jobs. When asked if they had enough information about careers, 80 per cent of all students said they wanted more information about their preferred area, and 75 per cent said that they wanted information about other careers. Parents also made comments about students not having the information required to make choices about further studies and careers. Fathers commented:

I want to mention about student choice - I find my child and other students are confused and get lost. He can't make his choice clearly. I find they haven't got the social and cultural levels they need for these decisions. Students when they go to College after grade 12, go randomly, there is no good guidance for them.

The reasons grade 9 students give for their career choice is best summed up in the following Table 5. To show trends, only the three most popular career choices have been selected here. Almost half give altruistic reasons such as helping people, society, and family.

Following on from this, students were asked for the three careers which considered classmates see as the best 'jobs' in Libya (see Table 6). Taking the most frequent responses for careers perceived to be favourites, careers in medicine (70 per cent mention this) and engineering (65 per cent mention it) fields rank well above others. Next comes education, followed by law in fourth place. Within the medical field, the occupation of doctor ranked highest each time. Within engineering, oil engineer ranked highest.

Table 5: Reasons for choosing this career

Reasons to do the job	Job aspiration			Total
	Engineering	Medical	Teaching	
It helps people		71%	37%	48%
I would really love to do this sort of work				
My parents/family want me to do this job	34%	40%	29%	36%
This job suits my personality				
Job helps to learn more about modern development	30%		28%	25%
I can be sure of having a job all my life				
Brings high salary	36%			
Do not have to work too hard or many hours		27%		
Saw it on TV	32%	28%		27%

Table 6: Jobs Grade 9 students think classmates see as the best in Libya

Best jobs in Libya	male		female		male/female count	% of total Respondents
	count	rank	count	rank		
Medical	451	2	669	1	1123	70%
Engineer	569	1	489	2	1061	66%
Teacher	127	4	322	3	455	28%
Lawyer	102		232	4	334	21%
Business/Finance	172	3	118		174	11%
Language/Translator	46		128	5	174	11%
Police/Military/Security	120	5	20		144	9%
Other	274		213		487	29%
Total	1861		2191		4073	1607

Although nursing seemed a popular career choice for girls, here students did not see it as a highly esteemed job. In any case, medicine and engineering are generally perceived as status occupations, though not necessarily in terms of earning capacity where students indicated that business-related jobs and engineering careers (in some cases) are the biggest income earners.

We also wanted to understand the vision students have of their career and personal future life. In both the questionnaire and FGDs, students were asked what they saw themselves actually doing after they finish all studies. Combining all answers where work was mentioned, we find that 36 per cent concluded that working (without specifying what type of work) would be part of their future life. However, 23 per cent still talked of future occupation in terms of higher studies which seems to indicate that these students were focusing on studies beyond schools without any clear vision of where this leads in terms of employment. A small number expressed their future in terms of establishing their own business/company, though in general rather than specific terms. Seven per cent of all answers also mentioned marriage and family as part of their future vision for themselves, while 4 per cent did not mention work at all (nor mar-

riage or study) but gave answers which only focused on themselves (have fun, build my future, wait for a job, get a status job, get/build house, get car, make money, travel), reflecting the level of maturity of some respondents. What is important about these answers is that the surveyed students do not necessarily view the next 10 years in terms of career. Less than one fifth of students see their preferred career as a reality, and altogether slightly less than half of other students indicated that they would be working, finding work, establishing work or helping people through their specific occupation.

While some parents talked about grade 9 students being immature or too young to make decisions, others saw this as lack of direction, ambition, and goals in life.

Unless I have an objective and clear vision in my mind, what will I end up doing? Our students are doing schooling just like a habit, with no clear plan in their minds. If you ask students in grade 9 what they want to be, they won't be able to answer you. Unless there is a kind of thing or person to advise students they just go on like this [Sabha].

Table 7: Family career preferences

Family prefers		medical		engineering		teaching		law		business/ finance		military/ police	
Student prefers	medical	345	63%	30	8%	11	10%	8	8%	2		3	5%
	engineering	68	12%	226	62%	6	6%	4		5	8%	7	11%
	teaching	43		36	10%	72	66%	10	10%	4	6%		
	law	21		9		7	6%	60	60%	2		3	5%
	business/ finance	24		19	5%	4		7	7%	45	69%	2	
	military/ police	9		6				2		1		36	56%
	air traffic	5		9		1				1		7	11%
	translation	8		2		5	5%	1					
Total parents		548		362		109		100		65		64	

Clearly some answers reflect the age or maturity levels of students (13 -17 years) focusing on themselves having a good time, while others focused on important traditions and family expectations such as having family and marriage commitments. Living overseas seems somewhat important for grade 9 students with over 6 per cent focusing solely on study, work or a combination of both outside Libya - an important issue when it comes to human resource planning for the next generation of workers. Whether desired or not, if future plans include migration even if temporary, relevant skills and competencies will be essential.

When we compare streams which students want after grade 9 with their career choices, we find a strong link between study area and career - 85 per cent Life Science want medical careers and 82 per cent Engineering Science favour engineering careers. However, there is only a moderate correspondence in the case of Economic Science (57 per cent want business/finance) and Social Science (50 per cent want law), hence students must select an inappropriate career from their their specialism or follow a career such as teaching which is open to all. This raises the issue of career advice. Parents

in Merqeb and social workers in Sabha reported favourably about a former career-subject called 'Technical', requesting it be reinstated, and teachers trained and appointed to schools. They reported that because the focus had been mainly on male skills, girls were less interested. While some schools included practical work, others taught it mainly 'from the book' without practical application.

Family perceptions of career and social-economic status

While there seems to be a common perception in Libya that the family is the prime decider on the study and career path of students, the research with the grade 9 students in this study actually found a high degree of independent choice. However, family connections also appear to be important for some students who recognised that without family influence, they would not have equal chances with some others.

I don't know if I will get a place in the Oil Institute after grade 9 because sometimes you need a relative inside to go inside and so I'm afraid, even if I deserve it, I won't get a chance [Merqeb].

Overall, there is also a high correlation between what students said families want them to do and what they themselves wanted as a career. As Table 7 shows, 63 per cent of students who said the family preferred medical careers for them also wanted this, while 62 per cent who said family wants engineering, also wanted it. This same pattern can be seen in all career areas therefore it appears that there is some alignment between student and family preferences. However, in almost forty per cent of cases, students had one aim and reported a different wish of parents. In discussions, students and parents predominantly said that students were free to choose themselves. Parents stated overwhelmingly that it is students' marks which ultimately decide the specialist stream of study and generally insisted that they did not interfere.

They won't look at what is desired, they only look at marks, and this affects where he goes and unless he is top, it is his marks which will decide not the student. The family's role is helping to find his area of interest for later study. Many do exams and quit the study because they are not interested or are even governed by marks.

In this study we also considered whether the educational background of mothers and fathers had a bearing on the choices students expressed or on the career areas which they said their parents prefer for them. Overall, this did not appear to be a significant factor either on student career aspirations or the reported preferences of parents. There was an even mix of aspirations not related to parents' education or work.

While we have not discussed this in detail here, analysis shows that contrary to what is often stated in educational circles in Libya, parental education is not the driving factor in students' job aspirations. Parents with higher post-secondary education and parents with relatively low education have more or less the same aspirations with regard to their children's future career. However, we note that more urban than rural students participated in this survey so this figure is not meant to be representative of Libya but merely of surveyed students.

In terms of employment, almost 47 per cent of fathers were employed by the government, 27 per cent were self-employed, 17 per cent work in business/finance and companies, and 12 per cent had unspecified free work. Those in education include teachers, inspectors, headmasters and a small number at university level (10 per cent), and working in some aspect of security (military, army, navy, guards, and customs) accounts for 7 per cent of men. Engineering plus work in the oil field accounts for 7 per cent, while less than 2 per cent of fathers were involved in any type of medical work. Almost 20 per cent of the mothers worked in government jobs. Eighteen per cent were said to be working in teaching, much of it part time, and less than 4 per cent in the medical field. Mothers were predominantly classified by the students as housewives, with a small number involved in teaching.

Considering facilities in the home, we found that for each career there was no significant difference between high and low income families. Of parents preferring medical careers for children, the percentage of homes not having internet or a computer was almost the same as those with internet and at least two computers, as is the case with those having no transport compared with those having more than one vehicle. In the case of engineering there was a slight difference, though not in any other career area. In families preferring engi-

neering for their children, we noted more with computers (31 per cent) than without (21 per cent), more with several cars (30 per cent) than those with none (21 per cent), more with television, video and satellite (30 per cent) than those with none (23 per cent). Overall, we find no statistically significant difference in career preferences according to socio-economic status.

Factors facilitating employment opportunities

Overall, 19 per cent of grade 9 students in this survey said they would rely on government appointments as the way into employment after studies were complete. The bigger issue for parents was merely that their children would be able to find work.

Actually we find a lot of graduates even from Medical College can't get a job, maybe in private sector. So fathers have to start with children from grade 1 about the best choice, e.g., I pay money for my child to study 20 years, and it's not easy for me. I want my child to study something good and help me afterwards [Merqeb].

There are specialists in Libya but no work. Those from psychology, social science have no chances. We have no project, no factories, no airport, no job for graduates only education sector. If there is no plan from government to build a factory, there will be no chance for graduates [Benghazi].

If there is no plan from the government for this area or areas like this, we will face problems like crimes because people will try to cover from needs - stealing and killing [Sabha].

That's because of randomly graduating in different sector. Electricians put into agriculture, or someone without the proper background and subjects is put in as a teacher. So it has the result of employees in sectors where they know nothing about the job. My daughter has not worked for two years. She shouldn't graduate if there is no job. After many years all knowledge switched off and needs refreshment and in-service. From smart teachers when first trained, they become poor! Why should she do this, not work and become weak [Sabha].

Grade 9 Tripoli male students expressed similar ideas referring to social problems as part of unemployment.

Almost all don't go to work if they leave after grade 9 or even higher. There are many unemployed here ... but we know "bad boys" on drugs ... It is difficult to find a job even if he has a certificate [Tripoli].

One last point of significance in terms of obtaining future employment is that even in grade 9 some boys were working while studying. An important question which we could not pursue, is whether this work was principally for financial reasons, of necessity, an interest, or possibly, because study alone is not seen as the most relevant and useful factor for future employment prospects.

4. Grade 12 Aspirations

Students' assessment of secondary school studies

This chapter considers opinions of students and their parents concerning their current and past education, particularly subject specialisations, aspirations for further study and in particular, career aspirations and prospects beyond grade 12.

In terms of specialisation, only 41 per cent of students stated that they had wanted to study their specialisation most of all. This seemed important to students.

Sometimes you do something you don't like because you think you must do it to get into university or to get a job. You might not like English but do it because you only think of the job. Maybe I want to study economics or medicine but only think of the job and not do something I like and enjoy, that's the problem. This will affect my job. Sometimes you need to have joy and do something you love [Benghazi].

In fact, 21 per cent of all students, slightly more boys than girls, stated that they wanted to study something else but that their grade 9 results were not high enough. In addition to 13 per cent saying that they followed parents' advice, 13 per cent also selected the specialist area because they wanted to do higher studies in it. Ten per cent of boys stated that they chose their area of study because it would help them get a job after grade 12, while small numbers noted that their school did not have other streams available from which they could choose, which parents also noted.

It appears that the way subjects are taught and the amount of content or possibly the curriculum/syllabus is detracting from a satisfying secondary education experience for many students. Only thirty-eight per cent of both girls and boys stated that their studies were relevant, and the accumulation of all comments shows some dissatisfaction with past specialisations or vocational studies.

Altogether 29 per cent said they need more laboratory practice in their school studies (with a high 43 per cent in Misrata and 35 per cent in Benghazi), 17 per cent consider teaching too theoretical and textbooks too lengthy. Having insufficient computer skills is cited by 13 per cent of students overall, with a high 35 per cent in Benghazi. Repeatedly the lack of English language skills and poor language teaching was emphasized in this study, with 24 per cent agreeing that their English language skills were not sufficient for continuing higher studies (35 per cent Benghazi, 33 per cent Misrata, and 27 per cent Tripoli). The concerns about language teaching extend to staffing with comments such as:

English? Yes it's in the plan but there's no teacher. Every year we have no English teacher but every year we find ourselves end up with satisfactory grades. This is the first time we have seen language labs. It's the first time we have been into this language lab! [Benghazi]

In discussions, Language and Social Science students expressed disappointment that they had not been able to study mathematics beyond grade 9. A female student in one discussion expressed it this way: 'Life is mathematics. We need it.' As noted earlier, because of narrow secondary school specialisations which exclude mathematics and science subjects, students can be disadvantaged if they select or are placed in the non-science specialisations after grade 9.

Some of the strongest comments from parents were made in regard to vocational schools. As noted in the previous chapter, they saw this type of education as important but were crying out for more attention to be paid to appropriate and sufficient staffing, facilities, and equipment. In Benghazi parents explained:

We ask attention to vocational intermediate schools because it is a real disaster situation. These are not ok so we prefer to send our children to secondary schools.

I am an industrial man and have been working in industry a long time. These students from vocational intermediate schools are necessary for the country and for industry because eighty per cent in any factory or company are such workers. These vocational intermediate schools have a bad reputation, we agree but this must change, must improve.

My son studies in a vocational school but it is not good. It doesn't have teachers or labs. He cut his studies because he thinks he cannot find a good job. He is mentally strong and excellent if he finds labs and teachers. Then he will succeed [Benghazi].

Work and study during secondary school

Twenty-nine per cent of students were receiving tutorial assistance, compared to two thirds of all grade 9 students surveyed. We could ask whether grade 12 students are no longer seeing the benefits of tutorial assistance, finding other ways of coping, or are resigned to the fact that they have completed the specialisation which they chose or in which they were placed. Whether or not they are actually satisfied is another matter.

Just as tuition is part of after-school hours for some students, so too work plus study is part of the wider picture for twenty per cent of grade 12 male students surveyed. A further 22 per cent of male students worked during holiday time. Girls were also in paid work though in fewer numbers (7 per cent during term time and another 6 per

cent in holiday time). Most were employed as sales-persons in shops, markets and restaurants. Fewer students were in skilled work or in workshops, and small numbers in business, companies and offices, and working on farms. Other work included specialist work in computer, medical and teaching fields. Of three reasons suggested for their working, 58 per cent of girls who worked said that it was to help the family, while 26 per cent stated it was for their own needs. Fifty-five per cent of male students said it was for their own needs, and 27 per cent claimed it was to help their family. If students need to work it indicates that many are from poorer or larger families, or alternatively they live in urban areas where work is more readily available on a part-time basis.

Students' post-secondary aspirations

Beyond grade 12, most students clearly focused on studying (see Tables 8 and 9). From those who stated they would not study, or who would combine work and study, or would study at home and help the family, a small percentage said they would work in their own field including computers, medical, and translation work, or in businesses or shops. Almost 9 per cent saw themselves working in offices or companies, in skilled work or in teaching, in the military, police, and in other government jobs or 'any job to be found'. The idea of part-time work in government jobs seems rather optimistic considering the increasing difficulty of gaining positions in the public sector, though possibly low level and part-time jobs are available through family connections.

Almost two thirds gave reasons for entering the workforce immediately after grade 12 such as: helping the family or needing the money. Sixteen per cent like to work and want independence, and 14 per cent stated that they wanted to be sure of, or build their future as early as possible.

Of those wanting to study after secondary education, the mode differs. Some wanted to combine it with work, and some hoped to study outside Libya (18 per cent male, 12 per cent female). A small percentage of students intended to pursue distance/online education in Libya or with materials from another country while at home and/or working to help the family.

Table 8: Future plans by gender and location

Next year, will you?	Female		Male	
	rural	urban	rural	urban
continue study	89%	87%	84%	72%
go to work	2%	1%	5%	7%
study at home & work	9%	12%	11%	21%

Comparing male and female respondents according to their location, we see that urban male students are most likely to work after grade 12, whether full time or combined with study. This may be because they have more opportunities for work than rural males, especially in remote locations where finding employment is difficult.

Two thirds of students across all shabiyas surveyed stated that they see further study as the chance to get a better job (72 per cent male, 66 per cent female). Parents' wishes are also considered apparently, though by only 17 per cent overall. Principally girls opt for university study (63 per cent plus 9 per cent private university), whereas only 45 per cent of males wanted university. Male options include military or police colleges and higher institutes as distinct from universities (19 per cent). Eighteen per cent of girls selected higher institutes. More students opted for university study than any other type of study. In Merqeb, this number was less than half, though more students there were looking at private universities than any other shabiya (12 per cent). Misrata figures reflect the vocational centre students who were surveyed, hence their high choice of higher institutes (63 per

cent) rather than university (10 per cent) and private university (also 10 per cent). Both Benghazi and Merqeb have relatively high numbers choosing higher institutes (19 per cent each), while Merqeb had the highest number of students choosing police college study (10 per cent).

Even when we consider two options together, i.e., study or study at home and go to work, the highest preference for female students is to continue studying. Female students in Languages (29 per cent) Social Science and vocational studies (23 per cent) have the highest percentage of female students choosing to study at home (see Table 9). Female vocational students have the lowest desire for further studies or state they will study at home. If we disregard studying at home, the highest choice for female students for further study is in Life Science. For male students further study is the plan for Basic-, Engineering-, and Life Science students. Overall, 68 per cent of vocational male students clearly want to continue studies, though 10 per cent stated that they will study at home. However, in Tripoli vocational students had different ideas about higher studies. 'No, I won't go for higher studies because I know some who get higher qualifications than we will have, and they are sitting at home without work'. When it comes to studying after grade 12, half saw problems facing them. Forty-eight per cent of female students and 51 per cent of all male students are concerned that marks will not be high enough. Distance from home to the higher education institution seems to be a problem in Misrata (36 per cent), Merqeb (29 per cent) and Sabha (20 per cent), and particularly for rural students (see Table 10).

Nineteen per cent of students said they did not have enough information about courses they wanted to study. Some had wanted to change stream but could not because once in a specialisation, change was impossible without repeating three years of study in the new area.

Table 9: Plans after secondary school by current specialization

Current area of study	Continue study			Go to work			Study at home and work		
	M	F	M+F	M	F	M+F	M	F	M+F
Engineering sc. = 236	94%	94%	94%	1%	2%	1%	2%	5%	5%
Life science = 260	94%	89%	92%	0%	4%	2%	4%	7%	7%
Basic Science = 215	96%	81%	91%	0%	7%	2%	2%	12%	7%
Social Science = 178	85%	77%	83%	1%	0%	1%	11%	23%	17%
Economic science = 238	88%	76%	82%	2%	2%	2%	4%	21%	16%
Languages = 302	87%	68%	81%	0%	3%	1%	9%	29%	18%
Vocational = 361	68%	62%	65%	7%	15%	12%	10%	23%	24%

Table 10: Difficulties with post-secondary study by gender and location

Biggest difficulties when studying next year	Female		Male	
	rural	urban	rural	urban
marks not high enough	48%	48%	48%	53%
not enough information about courses	22%	17%	14%	14%
live too far away from where I want to study	20%	16%	23%	16%
too much competition, hard to get a place	5%	10%	8%	8%
no connections for help	4%	5%	5%	8%
curriculum will be much more difficult	0%	3%	1%	0%
family/personal/financial problems	1%	1%	1%	0%

Students' career aspirations

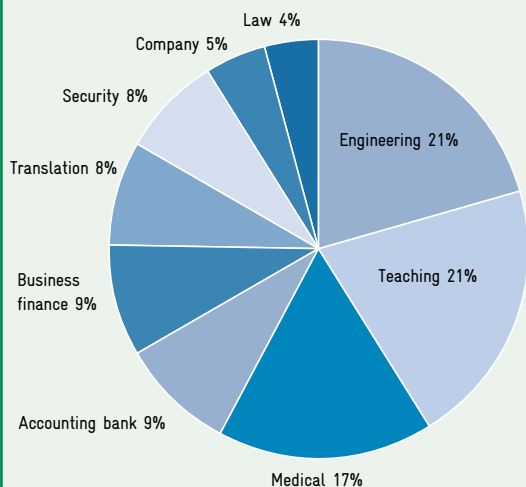
Having considered post-secondary study plans we now focus on overall career aspirations of grade 12 students. Figure 3 shows the overall aspirations of grade 12 students in the research.

Occupational choice by gender

Teaching is seen to be the most popular career for female students (followed by careers in the medical field), while engineering followed by employment in security are in the top places for male students (see Figure 4).

A quarter of girls selected teaching though only 6 per cent of boys preferred this career. In the case of engineering, it was more popular with male students (selected by 22 per cent) while for female students engineering was the third highest choice (13 per cent). Where the specialisation was noted, the biggest difference between males and females was in the field of oil engineering. For girls the most popular choice was architecture.

Figure 3: General career aspirations grade 12 students



After teaching, the second highest career choice for girls was in the medical field (16 per cent), with jobs including dentist, doctor, laboratory work, nursing and pharmacy. The percentage of male students specifically choosing a medical career as a doctor (6 per cent) compared with female students (7 per cent of all female respondents) was quite close, as was the choice of dentist (3 per cent girls, 2 per cent boys). Female students were also happy with other types of medical careers which did not appeal to male students.

In terms of finding work, there were mixed responses from one group of female Social Science students.

In my case, no problem when I said I wanted to choose law, my family refused and said it is difficult but I have made my choice. No, I'm optimistic because this country is changing because foreign companies maybe will say that they need ladies not just men and boys [Tripoli].

At another Tripoli school female students also expressed concern about careers they could follow.

It's hard for girls. For boys - they can do anything they want but for us it is difficult. We are able to study outside Libya and we have what it takes. We have ability but our parents won't let us.

Another in the same group had a different opinion:

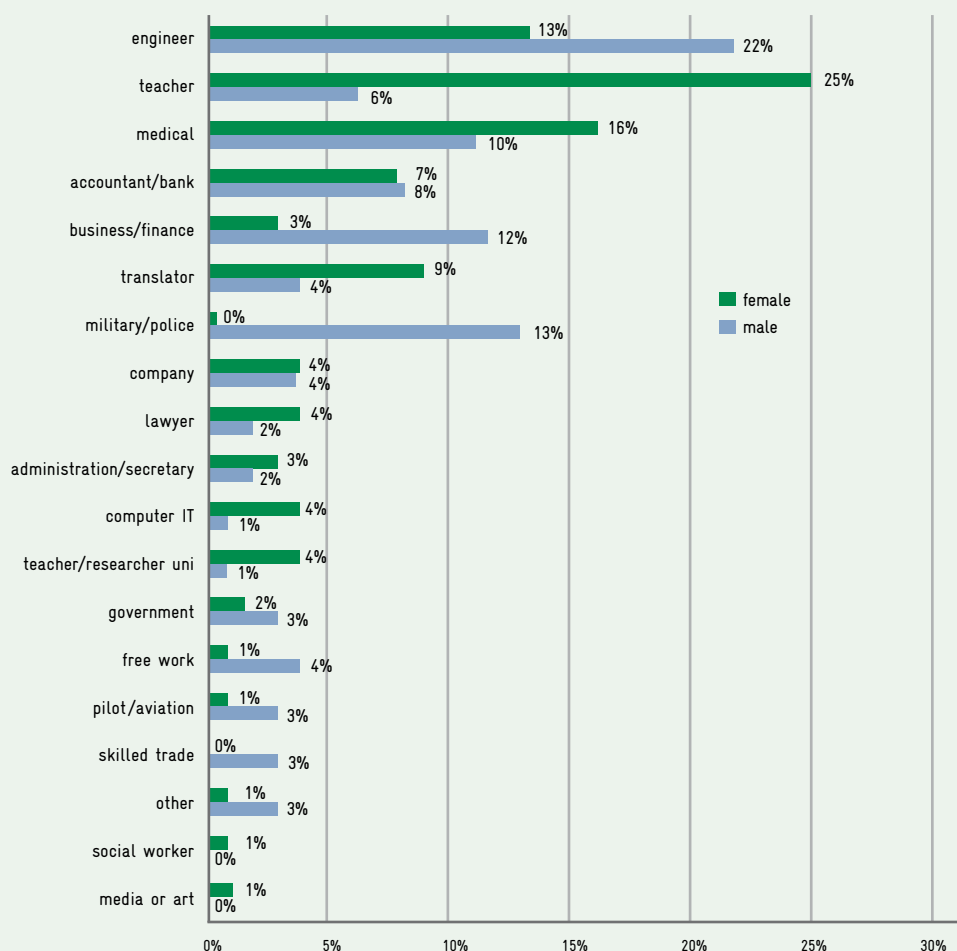
I believe Tripoli is the best place to work in Libya because it's considered as a modern place so I'm sure there are many jobs.

Occupational choice by specialisation

When we consider the streams in which grade 12 students are enrolled and compare them with the career choice indicated (see Figures 5-11), we see trends which lead us to question selection of narrow specialisations at secondary school level. One on hand, the percentage of girls enrolled in Life Science (leading to higher studies and hence medical careers) is 16 per cent which exactly matches the percentage of girls choosing a career in the medical field. Slightly fewer boys choose a medical career (10 per cent) than are currently enrolled in Life Sciences (12 per cent).

On the other hand, when we look at the total students choosing an engineering career (13 per cent female and 22 per cent male), we see that total enrollments in Engineering Science overall as 10 per cent of girls and 16 per cent of boys. Enrolments in Engineering Science and the number choosing careers in this area do not match. The additional choices seem to come from the vocational field, which, though it is not meant to lead to engineering, clearly suggest a 'back door' into engineering studies beyond secondary school, especially through higher institutes. When we consider that 27 per cent of all boys and 15 per cent of girls surveyed are in vocational schools, yet only 3 per cent of male students state that they will work in skilled trades, e.g., electricians, mechanics, builders and carpenters, technicians for air condi-

Figure 4: Career aspirations grade 12 by gender



tioning and similar jobs, we need to consider where the rest of students plan to work. Figure 5 certainly indicates occupational areas which are not the main focus of Vocational Intermediate Centres. Female students in the vocational Comprehensive Career Centres are also likely to choose careers with computers and computer engineering (6 per cent of female students), especially as computer studies tends to have become the sole

area of teaching and study in many Comprehensive Career Centres. The other 7 per cent of girls enrolled in this area might be considering administration careers which accounts for 3 per cent of choices, employment in companies (4 per cent) and teaching.

Figure 5: Preferred career students in Vocational Centres

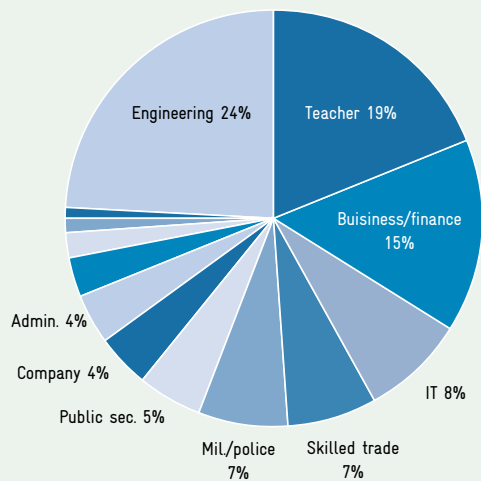


Figure 6: Preferred career students in Basic Science

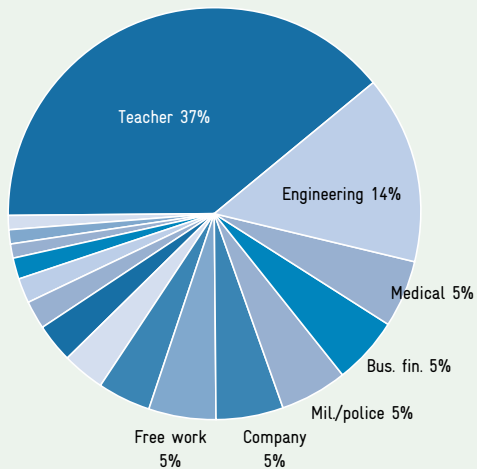


Figure 7: Preferred career students in Life Science

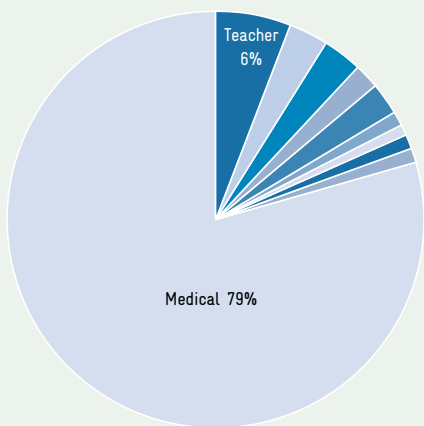


Figure 8: Preferred career students in Economic Science

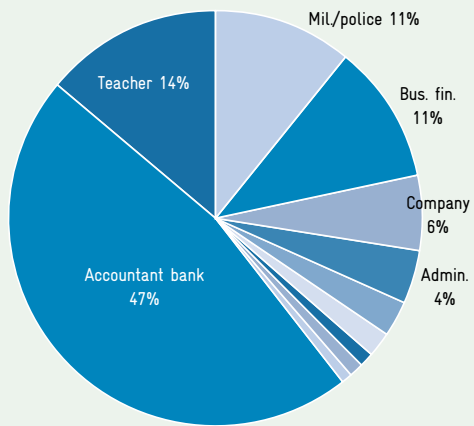


Figure 9: Preferred career students in Engineering Science

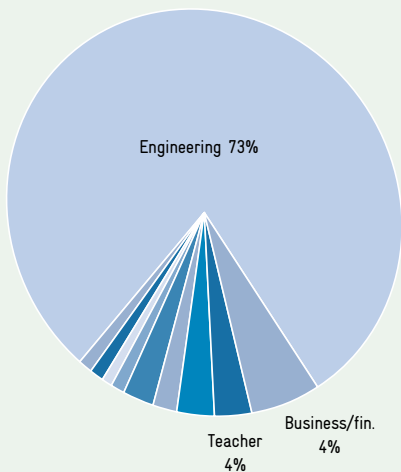


Figure 10: Preferred career students in Languages

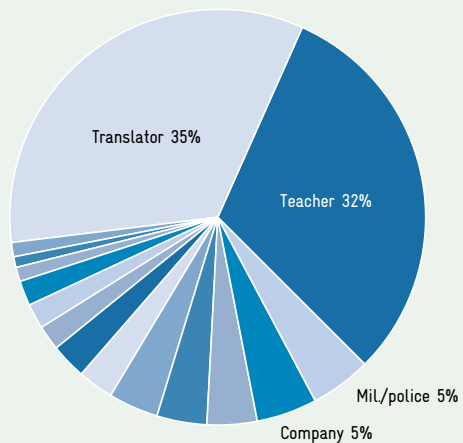
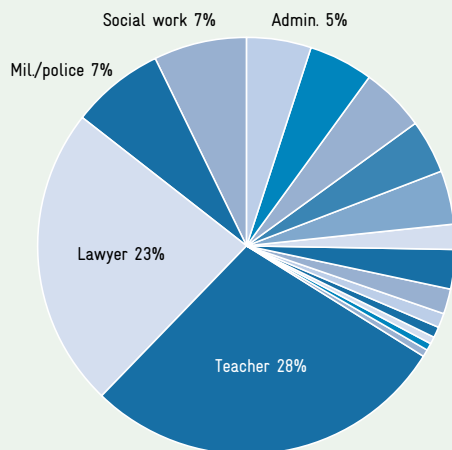


Figure 11: Preferred career students in Social Science



The question which we ask at this point at this point is how students who have been considered weak or failing can do such demanding academic work (computer studies) and apparently find employment. Several (though not all) computer studies classes visited in vocational Comprehensive Career Centres clearly showed quite a high level of skill and learning. Even though vocational students mostly intend to go on with their higher studies (again something we question since these students were supposed to be weak students in grade 9), there was quite an optimistic spirit in several vocational centres. One female student reinforced others' ideas:

It is easy for me to find job. My father will find a job for me because of my experience and connections. We are prepared for work but with more studies we have better experience [Merqeb].

Many students currently studying Economic- and Social Science and Arabic language saw the way open for them to pursue a variety of study and career options which cover all other occupational areas indicated in this survey, especially the teaching career for girls. However, parents disagreed.

Many Economics Science students were unhappy with their area of study, though in theory, it opens the way to a range of employment possibilities. Of the total (10 per cent girls, 17 per cent boys) enrolled in Economic Science, there were a number of areas in which students considered they could find employment including accounting/banks, administrative/secretarial work, business/finance, work in companies and offices, as well as the general field 'government' and teaching.

Certainly many female students with whom we discussed these issues in vocational Comprehensive Career Centres had the impression that they were competent in their computer studies and will easily find employment:

'We are better in using computer than other school friends in grade 12 in other secondary schools. We know more' [Merqeb].

One result which requires further comment is that law was chosen as a career by a small percentage of female students. From discussions, it appears that while the study area is most acceptable and respected, work in the field of law is less likely for these young women. Again female Social Science students in Sabha had differing views on careers in law:

My father says law has no future as a job for me. My father prefers me to work as a teacher. Two others said: my family prefers me to be a teacher and will force me.'

It is mostly men who are lawyers in Libya. There are not enough private offices or companies. All have men and that's why we go to teaching. Especially in our specialisation men can get jobs easier than women because of our society. Men are always needed for this law field.

Whenever they think of work in this area they think of men because traditions will never allow us to work in this field. My family is conservative and won't allow me to work in this field. Women prefer men lawyers. Men have a lot more experience in law than women. Men can persuade more than women [Sabha].

In Benghazi similar comments were made: 'My sister is a lawyer but she can't find a job. They say it is not suitable especially for a woman. There are too many men there for her to be able to work in this job'.

What is significant for both male and female students regarding career choice in all streams and in most occupations is that starting their own business was favoured by 15 per cent of respondents. In Benghazi for example, female English language students stated: 'I always imagine myself opening a company. My parents tell me if you work you can achieve your dream Yes, then we can work with her in her company'. On the negative side, almost 8 per cent of students could not or did not respond at all to this question about future career and employment aspirations, nor could they describe the general area of work which they would like or could see themselves doing. This was just before final grade 12 exams. In a combined discussion of grade 12 parents from 2 schools in Benghazi, it was stated:

It's a vague future; they can't see anything, even for now it is not clear. We can't see anything even for tomorrow. We and our sons don't have any idea, have no clear picture We understand what you mean exactly but none of us know the circumstances and what the future holds for us [Benghazi].

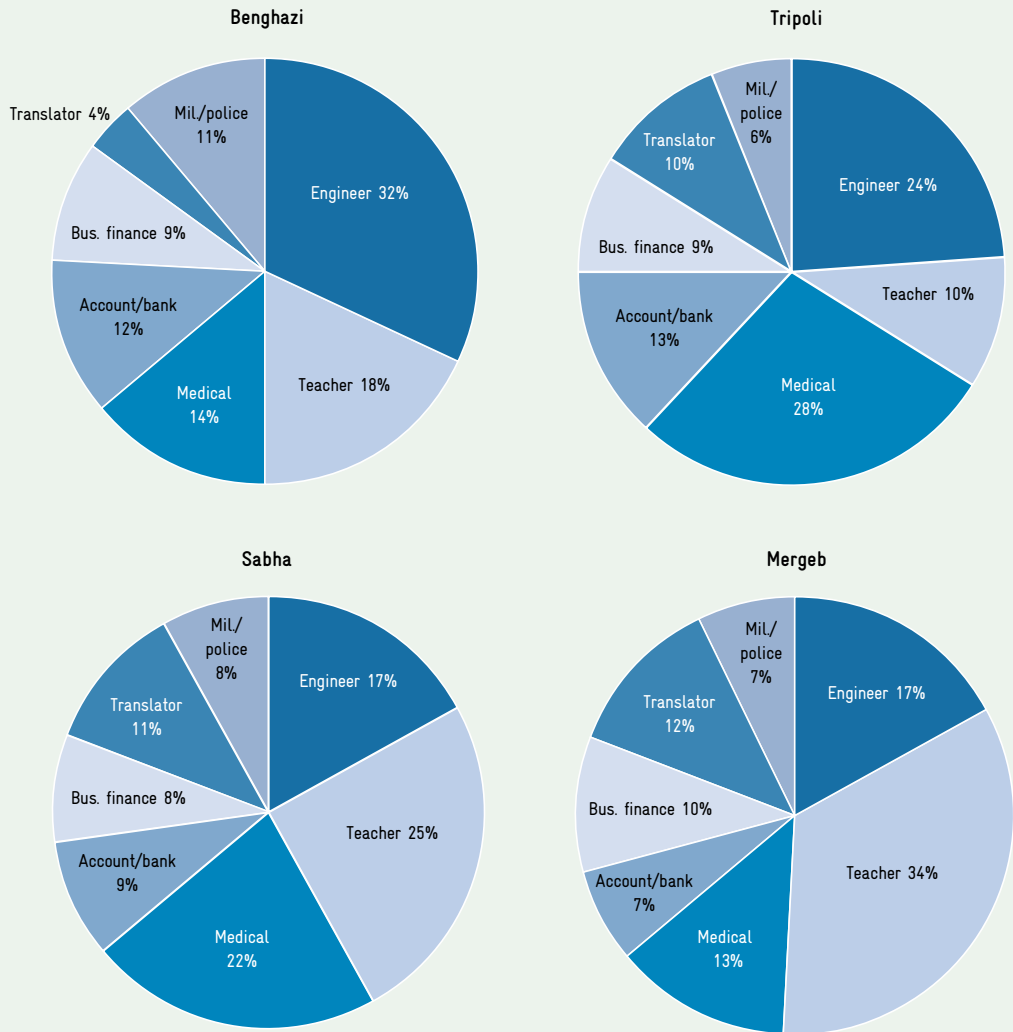
Regarding occupational choice, it is important to note here the modes of employment preferred by respondents, especially for women. Male (41 per cent) and female (43 per cent) respondents prefer work in the government sector (the highest choice in all shabiyas), with a further 12 per cent of females and 7 per cent of male opting to work in a public company (also government). Almost a quarter prefer to work with a foreign company, especially in Tripoli and Benghazi. Overall, 13 per cent prefer work in private companies. Misrata students choose this most (21 per cent).

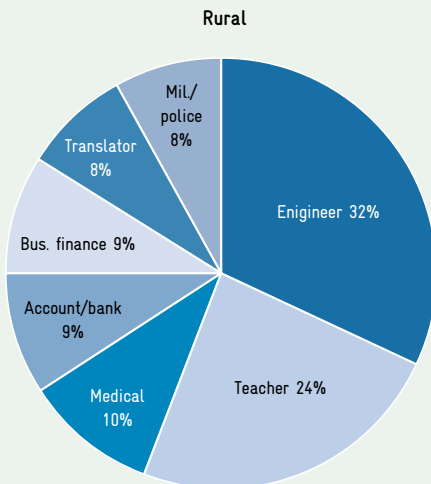
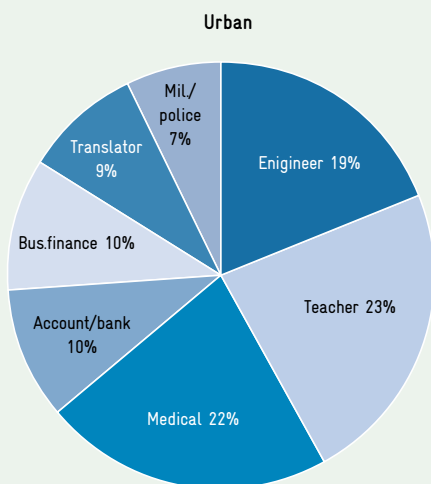
Occupational choice by region

When we examine the grade 12 career aspirations by shabiya, we find significant differences. Taking the seven highest choices across four shabiyas (which accounts for 75 per cent of all career choices), Benghazi has the highest number aspiring to engineering but second lowest for medical. Merqeb has 13 per cent medical choices. Tripoli on the other hand, has the highest number of respondents choosing medical careers. For Merqeb teaching is the most frequently chosen career, more than triple that for Tripoli and almost double that of Benghazi. Benghazi has the highest selection of careers in the field of security (military/police) almost double that of Tripoli, reflecting the availability, or alternatively, absence of such employment in Benghazi. Rural Benghazi fathers reported that military careers offered the greatest opportunity for their sons, especially in the case of limited local employment prospects.

There are many new graduates in engineering - oil, electric, electronic college and economic college but they can't get jobs so they go to the military. Even there they only get simple jobs, low positions not officers' positions. This causes problems. They have education and degrees but no work. Only simple jobs and even work the military needs 'wasta' connections [Benghazi].

Figure 12: Career aspirations by shabiya and urban/rural





It is also worth noting career aspirations according to rural and urban locations. While we find students choosing the teaching occupation almost equally (24 per cent rural, 23 per cent urban), there is a great difference in the case of medical careers (10 per cent rural, 22 per cent urban), though more rural than urban students choose engineering. This may be on account of vocational centres as well as secondary specialised schools being included in the sample for this item, and engineering is clearly preferred by many vocational male students.

The rural/urban differences are not as great in regard to the other four career areas. Military is slightly ahead for rural students (8 per cent), while urban students prefer translation, business/finance, accounting/bank careers slightly more than rural students. Whether these findings by shabiya and rural/urban areas are representative of whole regions or only of the sampled students we cannot conclude, though without doubt there are differences which are quite distinct and could be followed up with further in-depth research with wider samples at local levels.

When it comes to the question of what others think of particular careers, we tend to find mirror images of respondents and projected classmates' preferences. The following Table 11 sums up the main careers which respondents (by specialisation) consider classmates see as the best jobs in Libya.

Perhaps grade 12 career aspirations are more realistic than those at grade 9 level, though 60 per cent of grade 12 respondents still consider that their classmates see medical careers most favourably of all. Engineering comes in second place. Significantly, this list of perceived best jobs seen by classmates generally reflects occupations within the study area of respondents, for example see the number of 'best jobs' related to Economic Science listed by students studying that specialisation. It is not clear whether students really know what others think or whether they are projecting their own ideas to some extent. Economic Science students see accounting and banking careers on a par with engineering. Vocational students on the other hand select engineering in the first place but skilled work (their field) near the end of the list, possibly a self-image problem. For Engineering Science students, an engineering career far outweighs all others (116 percent, chosen for the three best careers).

Factors affecting career aspirations

Students provided useful information about parents educational and employment backgrounds which allowed us to examine similarities and differences between what the children want, what the parents want, and the opportunities the parents have had. Though there have been changes in Libya's economic and political system over many decades, we see that of the grade 12 students in this study choosing careers in engineering, medicine, and accounting, few have parents employed in these fields. Only 4 per cent of fathers of these grade 12 students work as engineers, though 21 per cent of students want careers in engineering. Less than 3 per cent of mothers and fathers work in the medical field but 17 per cent of all grade 12 students surveyed want medical careers. Similarly, less than 2 per cent of all mothers and fathers work as accountants but 9 per cent of students choose careers in accounting or banking.

Table 11: Classmates see as best jobs

Current area of study	Basic sc.	Econ. sc.	Engin. sc.	Languages	Arabic	Life sc.	Social sc.	Voc.	Count	Total %
medical	58%	40%	56%	60%	72%	97%	53%	52%	1081%	60%
engineer	52%	36%	116%	38%	25%	61%	20%	61%	994%	55%
teacher	46%	21%	23%	47%	57%	35%	32%	35%	631%	35%
company	15%	19%	15%	21%	8%	13%	14%	18%	294%	16%
lawyer	8%	9%	6%	16%	44%	12%	43%	10%	265%	15%
military/police	17%	18%	10%	10%	3%	7%	18%	15%	232%	13%
business/finance	7%	12%	15%	8%	8%	6%	3%	8%	154%	9%
accountant/bank	4%	36%	2%	1%	3%	3%	1%	6%	136%	8%
other	8%	8%	6%	11%	3%	7%	11%	6%	135%	7%
management	1%	19%	6%	2%	2%	1%	4%	1%	84%	5%
translator	2%	0%	0%	28%	11%	0%	3%	0%	84%	5%
employee/gov	5%	6%	2%	2%	0%	4%	3%	7%	76%	4%
pilot	4%	2%	5%	5%	3%	2%	3%	4%	63%	3%
free work	5%	3%	1%	1%	5%	2%	5%	5%	59%	3%
computer	6%	0%	1%	3%	2%	2%	2%	4%	48%	3%
administration	5%	6%	1%	1%	0%	2%	4%	1%	46%	3%
skilled work	0%	0%	1%	0%	0%	1%	0%	5%	22%	1%
Total (mult. resp.)*	243%	234%	265%	253%	248%	255%	216%	238%	4404%	

*Because of multiple responses, total responses are bigger than 100%

Table 12: Top reasons for career choice by favourite careers

Reasons for job choice – top 3 careers by stream	Job aspiration			
	engineering	medical	teaching	Total
It helps people	23%	66%	38%	41%
I would really love to do this sort of work	45%	49%	27%	40%
my parents/family want me to do this job		26%	24%	24%
this job suits my personality	23%	21%		22%
job helps learn more about modern development	29%			22%
I can be sure of having a job all my life			23%	
brings high salary	28%			

When we examine mothers'- and fathers' occupations, we find government jobs as 'employees' and in teaching are very high. There is some consistency between parents' occupation and students' aspirations when it comes to this point. Almost 15 per cent of parents are teachers and 21 per cent of students plan to follow this path. While only 6 per cent of boys select teaching as their future career in this survey, for 26 per cent of girls it is a clear pathway.

Another occupational area where the career inclination is rather stable is in security (military and police) work. Thirteen 13 per cent of boys (or 8 per cent when female plus male choices are taken together) choose this occupation. A little more than 13 per cent of grade 12 students have fathers in this field, so the job seems to remain a standard option, especially for males.

Sixty-four per cent of all grade 12 students surveyed indicated that their mothers were not engaged in employment outside home duties. However, 20 per cent of all mothers are teachers, so with these role models, teaching seems to be a suitable job for girls who see women successfully combining work and home duties.

When it comes to motivation for career choice and we select the three most popular choices for consideration (see Table 12). Certainly the strongest motivating factors for female students are not specifically related to gender or perceived cultural/social acceptability. Forty-one per cent of girls select in first place 'really wanting to do the job', though this is ranked in third place by boys. In second place, girls choose the job because it will help people. Female students also choose the job because it will help them learn about modern developments and because it suits their personality. For male students, these last two reasons score much lower. They prefer the career because it helps people, brings a high salary and because they would love to do the job for a lifetime. Interestingly, female students do not rank the reason 'the job is suitable for women' very highly. Whether there will be a difference when it finally comes to the actual employment of these young women is another issue.

Another question students were asked to consider was what they perceived to be the greatest influence on their decision. For most students, the choice is their own and they say they have not been particularly influenced by anyone or anything. When we take the seven most popular choices for analysis, we find that the reason 'family wants me to follow this career' is not very high on the list - in equal fifth position for girls and fifth position for boys. While the role of fathers was

constantly stated, if we consider all responses which include immediate family members (father, mother, parents, brothers, and sisters), we find that fathers have been influential in a quarter of cases, while family and relatives have been influential to some extent for almost 46 per cent of students who answered this question. Students did not say that family decided for them, though from this question we can conclude that immediate family seems to be an important influence. However, parents continually insisted that the choice was up to the student and that they would not try to change their minds.

One Benghazi father agreed that he redirected his daughter's study preferences: 'my daughter wanted Arabic but I insisted on English because of jobs'. On the whole though, parents insisted that they left the choice to their children. As Benghazi parents indicated:

First it is the student's desire. If he wants to do law, I can't prevent it because I think there will be no job in the future ... Although I think he will have no job in the future, there might be a new decision. There is no stability about all this so we can't decide where they should go. My daughter is in grade 11 doing English even though I prefer other streams like engineering and life science. No, I respect her desire. I told her do as you like. She is excellent and gets high marks. We as fathers, we try to advise our

children to choose the stream to enable them to get a good job in future but we respect our children's desires but expenses are high when they study and stay at home afterwards [Benghazi].

Perceived barriers to finding employment

Forty-four per cent of students consider it will difficult to find work in the careers which they prefer. Few were able to specify the exact nature of the difficulties, but general reasons given can be seen in Table 13.

Comments from students and parents indicate a wide-spread belief that finding the right work or getting appointed in the career area even after graduating from higher education is very difficult. Parents commenting about unemployment among young people said:

We are afraid of our children's fear, because even if they study, there is no job there afterwards. Really we suffer because our children are all intelligent, all motivated, but there is nothing for them so they stay at home and we are so sorry about this. They become depressed and suffer when there is no job after study. This affects them and then parents are affected, we are sorry and frustrated [Benghazi].

Other groups of parents in Benghazi and Sabha in particular, expressed concerns about the lack of stability in the job market and constant changes which make students and their parents uneasy and confused in making choices. In Merqeb, many parents made similar comments about the government provision of jobs with life-long security and a contract. Many spoke of the importance of having the right connections (wasta) and the importance of getting contracts from the government (ta'een).

My son has been unemployed for 2 years after graduating from mechanical engineering. There are no jobs in this, not even part time. He would take any job in his field. He is not waiting for a government appointment - ta'een [Merqeb].

Table 13: Perceived barriers to following the chosen career

Perceived barriers to following the chosen career	Total
My career needs higher qualifications	28%
Need 'connections' to find this employment	22%
Limited chances to get this employment	14%
Specialist' jobs are hardest to find	12%
Difficult to get government appointments	7%

Another spoke of his son sending fifty applications to fifty different places, 'but he has no chance because we have no wasta or influential people to arrange things'. In Al Khoms (Merqeb) parents reported that it was easy to find work if people were prepared to be drivers, work at the port, or do free work hired a day at a time for someone as a porter carrying people's luggage. Another talked about his daughter who had graduated in physics from the science faculty: 'She had excellent grades but no wasta, no connections, so no job', while another stated:

Economic graduates have a difficult time finding jobs in banks. There are also plenty of graduates from Life Science but this is not good either because government doesn't provide job [Merqeb].

It was reported that most graduates end up working in teaching, though others made comments about teaching as a career such as: 'but my son studied law and he doesn't want to go into teaching'. It should be noted that although teaching appeared to be a popular career choice for students and apparently for parents of female students, many students were most definite about the fact that they did not want to be teachers.

However, there were also positive comments in discussions about the possibilities of employment in preferred occupational areas. For instance when one student of Economic Science said that there were too many accountants but too few jobs, another in the discussion disagreed:

I don't agree. There are new areas in economics now, such as financial-market forecasting, marketing, and other new areas. These jobs are just starting in Libya [Merqeb].

Several female students of Social Science whose aim was to become lawyers were optimistic unlike some other of their classmates. As two students expressed it:

Yes, I think I can be a lawyer because of the development and cooperation Libya is having with other

countries. Women might have their own law office and things will change. It happens in Egypt... Even women have their own style in persuading and solving problem. No problem, I can go to either [Sabha].

While there were many negative comments about Vocational Intermediate Centres, students at a Benghazi centre were quite optimistic. One agreeing with his classmates said: 'We are confident we will get jobs in oil companies - with electricity and welding we will be ok.'

In the minds of many students a reason for graduates being unemployed is that the stream studied was not chosen wisely.

Why? Wrong choices; too many do similar streams; too many do the easiest choices in engineering; then some do unusual things, for example my brother did bio-engineering but there's no work for him; or they do things overseas which are not even recognized jobs or existing jobs in Libya [Benghazi].

Finally, while students did not express it in so many words, it is clear that they want the freedom to choose what they study no matter what the level of their marks, and even if employment prospects seem low. However, they also stated that they would appreciate professional advice, with almost three quarters of respondents wanting specific information about careers.

Factors facilitating employment opportunities

While students continually repeated that they knew many graduates from higher studies who were unemployed, often for many years, they also agreed that there were certain things which could help in obtaining the required employment. Overall, higher qualifications are most important (chosen by 53 per cent). English language and computer skills were also seen as important.

This finding is significant because when we compare these answers with an earlier question asking students if they thought any other subjects which they had not studied would help them get the job they prefer, the overwhelming response was that they wanted language studies (in particular English) with a focus on oral communication. In second place, students wanted computer and/or internet access with relevant practical skills. While girls think that personality suited to the job is important (36 per cent), only 22 per cent of boys select this. Family connections and/or support is again a fair way down the list (which seemed to contradict other FGD findings) at fifth position for 24 per cent of girls, and at equal fifth position with good achievement at secondary school (both 20 per cent) for boys. Personality and communication skills came out frequently in discussions with students, for example:

No, the qualification is not important but you are. When you are answering in front of the head of the company or place in an interview, your personality, your understanding is important, and if you know what you want to do exactly it's not a matter of study, or years of study in university. Your personality gives the sense [Tripoli].

Students showed that they had different sources of information. For example, in regard to actually getting information about their preferred careers, 52 per cent of girls said they always wanted this job (suggesting that they had never requested additional information). In 18 per cent of cases, students gained information from relatives working in the career, and television was almost as helpful for 17 per cent of girls.

While male students also noted that they always wanted to follow their preferred career (36 per cent), their relatives in this work were more helpful in 38 per cent of cases. Teachers were a source of information for male students in 18 per cent of cases and for 21 per cent of female students.

School social workers provided information in only 4 per cent of cases overall. Therefore the key sources of information for all respondents to this survey were as follows: no one has been important because it was my own choice with no other source of information given (44 per cent), relatives who work in the same job (28 per cent), teachers (almost 20 per cent), and television (16 per cent). These results were consistent across all shabiyas for individual choice and relatives, though in Sabha, the third most important source of information was television (20 per cent) and for Benghazi, teachers were actually much more important (21 per cent). In Tripoli too, teachers get a relatively high rating as a source of information (21 per cent). It is worth stating again that many students expressed a keen interest in having more information about different types of careers and work (79 per cent of girls and 70 per cent of boys).

As we have noted several times in this chapter, students and their parents continually reported that they knew 'many many' university graduates who were unemployed. When asked why this was the case, students usually replied that the choice of specialisation was wrong, especially because of the heavy competition in certain fields of work, e.g., accounting. Emphasis was placed on having connections (wasta) in order to get a job or job placement.

There was widespread belief that it was difficult to get government appointments immediately, in some cases for many years. Comments showed that the attitude of 'the government provides the job after graduation' is still popular, in spite of a freer private labour market. Waiting for government appointment was the most popular response in regard to finding employment (30 per cent female, 25 per cent male). This is discussed further in the next chapter.

For female respondents, other ways of finding a job after study included gaining practical experience in a company without fulltime salary to get work experience (18 per cent), whereas 12 per cent of males chose this equal fourth on their list, along with 'help of parents'. Girls also favoured writing letters and sending copies of their personal resume, which is the second highest option for boys (19 per cent). In third place, boys said they would ask friends about job vacancies.

By shabiya, there is a difference. Benghazi (34 per cent), Sabha (30 per cent), and Merqeb (28 per cent) students gave their first preference to finding a job by waiting for a government appointment. In Tripoli, the favoured way of finding work was to write letters and send copies of my personal resume (23 per cent), while the vocational school students in Misrata planned to listen for jobs on the radio and television (36 per cent). In Tripoli, waiting for government appointment was the second option (20 per cent) and in Misrata, the third option (16 per cent).

Female students were very interested to hear from fellow-students about Human Development courses being run in a private institute in Benghazi, especially when they were told that the course included things related to getting the desired employment.

I think building a good personality is very important but I think it is hard and difficult for someone to do that especially for us girls because we are mostly at home and we don't communicate widely with other people [Benghazi].

Parents also listed personality, self-confidence, and creativity as important characteristics in gaining employment. Some students seemed prepared to rely more on their personal effort, to work in their own business, and to visit companies. How realistic these suggestions will be, is another question.

Students' recommendations for improving learning and teaching at secondary levels

Earlier we discussed the students' ideas about their past three years of secondary schooling in general. When we finally discussed specific changes or improvements which they would recommend to help them find the job they wanted, students identified aspects of their curriculum and teaching which should be addressed. Overall, recommendations were realistic and did not aim particularly high. In all specialised secondary schools and in vocational centres, students emphasized that their education should be more practical.

This is very important for us. Our minds are just like floppy disks - memorizing all the time. We don't do the sort of work and learning to make our minds work [Benghazi].

Forty-five per cent of students gave recommendations for changes in schools to gear learning more to the needs of employment and the labour market. The emphasis was on practical/communicative foreign languages with the strong recommendation for language laboratories. Practical computer studies and/or internet provision was highly recommended, as was laboratory work and more practical study.

Finally, it is important to note that in all cases during school visits, where school principals were asked about the age and grade-level at which students decide or are directed into specialised or vocational secondary schools and particular subject specialisations, either by choice or because of grades, they stated most strongly that the former situation was better when students chose after grade 10 not after grade 9 (as now). Many also stated that two general streams of Science/Maths and Humanities/Arts gave enough choice and that the early streaming into six specialisations at secondary school is too narrow and restricted.

5. Comparative findings

Several key findings emerge from the research which we highlight in this section by comparing attitudes, perceptions and possibly misconceptions of youth concerning careers at these different stages of education. This is important because so much depends on what students experience through the education system, no matter what the case may be within the wider Libyan labour market.

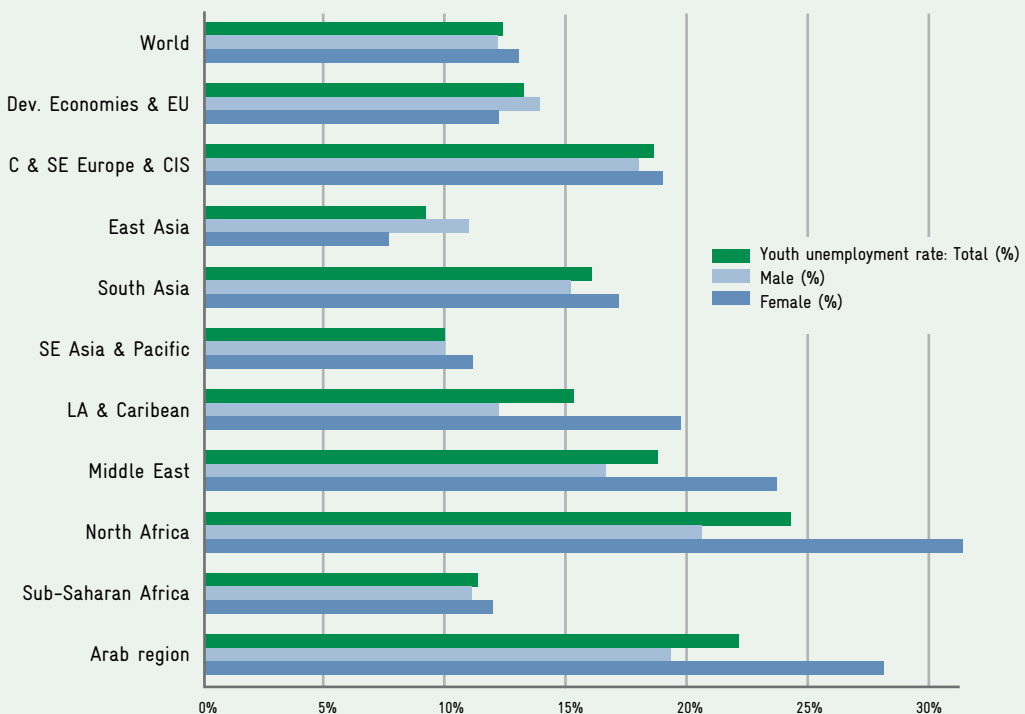
The employment situation

Unemployment was very clearly recognized as a dark spot on the horizon for students and parents at both levels. Though it is almost impossible to get accurate statistics in Libya, it is clear that the

employment situation is acute. In 2006, the World Bank estimated unemployment to be around 25 per cent. As various reports including the ILO (see Figure 14 below) have reported for years, youth unemployment is highest in the MENA region, particularly North Africa, and as part of it, Libya. More than 50 per cent of the population is under the age of 20, so youth unemployment has long-term repercussions.

Prior to the 2011 uprising, a large pool of expatriate workers with better-suited education and higher productivity filled the job market in Libya at all levels. Parents in our study acknowledged the better skills of many foreign workers, and the fact that foreigners were prepared to do work which young Libyans often do not want. Parents believed

Figure 14: Youth unemployment rates 2008



that foreign workers earn less than Libyan workers, though the World Bank reported in 2000, that 20 per cent of expatriates were earning over LYD 300 per month, compared with 12 per cent of Libyans earning this amount in the same period.

As well as constant reporting of unemployment among graduates, respondents talked of the necessity of 'over-educated' graduates working in unskilled employment, e.g., 'my son went to university, has an excellent degree but now he is at home because there is no work. Now he works in a grocery.' Additionally, parents and students frequently reported young people working in areas completely unrelated to their studies.

Occupational preference and motivation

With the perceived lack of employment opportunities in the private sector, Libyans seem to prefer job security and fringe benefits offered in the public sector, despite the relatively unattractive pay of public sector jobs. Our study confirmed this with 42 per cent of grade 12 and 45 per cent of grade 9 students preferring work in the government sector.

We see from the following Table 14 that public sector employment in most MENA countries is higher than the world average. In Libya's case, it is significantly higher than in most other MENA countries.

Table 14: Public sector share in employment
Public sector share of total employment 2000

MENA region	29%	Other countries	
Algeria	29%	E.-Asia-Pacific	33,8%
Bahrain	28%	China	36,0%
Egypt	29%	UK	18,9%
Iran	28%	Canada	17,5%
Jordan	44%	Spain	15,2%
Kuwait	93%	USA	14,6%
Libya	66%	OECD	13,5%
Morocco	10%	Germany	12,3%
Saudi Arabia	79%	Japan	7,7%
Tunisia	22%	Korea	4,5%

World 27.0 %

World excluding China 18.2 %

Source: adapted from statistics from ILO (2009): Growth, employment and decent work in the Arab region: Key policy issues.

Work in the public sector is consistently favoured across all groups, especially female students. It is actually greater for grade 12 male students than at grade 9 level. In our grade 9 cohort, male students are more interested in working in the private sector and private companies than in the public/government sector, unlike female students.

Figure 15: Preference for work sector grade 9

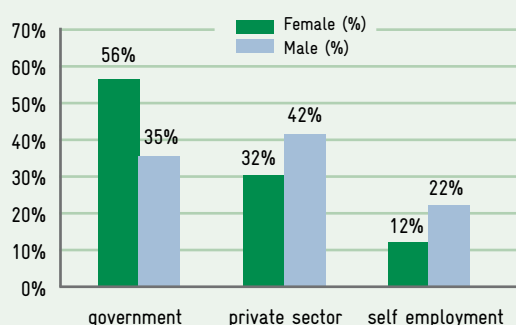
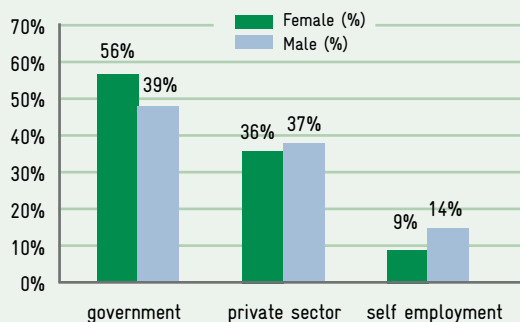


Figure 16: Preference for work sector grade 12



However, with the grade 12 group this has changed. While more than half (56 per cent) of the female students still opt for work in the government sector, now almost half of all male students also want to work in the public/government sector. This strong preference is important considering that work in the public sector already accounts for two thirds of all employment in Libya. The implications here are serious. With changes in policy which appear to limit government appointments in certain sectors including teaching (some shabiyas reported no new permanent government appointments in teaching over the past two years), we question whether students are knowledgeable and realistic about employment opportunities.

When grade 12 career choices are matched with public sector employment aspirations the question of career choice and placement in employment is important. If employment in the public sector is limited, are students prepared for private sector work or self-employment? Introduction of entrepreneurial studies in secondary 'specialised' schools could make a difference.

Looking at the top career choices (84 per cent at grade 9 and 85 per cent at grade 12) the greatest difference between male and female students is at grade 12 (see Table 15). Grade 9 students were much less clear about what they wanted as a career. Considering that 59 per cent of males and 55 per cent of female grade 9 students had no clear idea of their future occupation, the stream in which they are placed in secondary school, can actually determine life directions. This is a serious consideration and might be a reason for reconsidering early placement in narrow specialisations merely on the basis of marks.

At grade 12 the greatest differences are in regard to the occupational areas of engineering, teaching (23 per cent difference in favour of females), business/finance, and security (13 per cent difference). As noted above, the preference for teaching careers for so many young women in grade 12 has huge implications if work in this area is limited.

The difference between male and female students choosing medical careers at grade 9 and at grade 12 levels is about the same but in each case, more females prefer these types of employment. An interesting finding in Benghazi, from both parents and students, was the report of high-achieving students who would have previously have opted for Life Sciences in secondary specialised schools tending to prefer English language studies because of the availability of employment opportunities for those with foreign languages.

When it comes to reasons for career preferences in terms of gender, we see significant differences. Figure 17 shows that 53 per cent of girls in grade 9 choose the career 'because it helps people'. By grade 12, two of the three most frequently chosen careers (medicine and engineering) are selected because students 'prefer the type of work' (see figure 18, page 51).

Table 15: Top career aspirations by gender and grade

Top career aspirations

Grade 9				Grade 12			
Occupation area	Male	Female	M+F	Occupation area	Male	Female	M+F
'work'	39%	35%	37%	engineer	22%	13%	17%
higher studies	20%	23%	21%	teacher	7%	30%	17%
medical	3%	11%	7%	medical	10%	16%	14%
business/finance	6%	7%	7%	accountant/bank	8%	7%	7%
Engineer	5%	1%	3%	business/finance	12%	3%	7%
teacher	1%	5%	3%	translator	4%	9%	7%
self-employed	8%	1%	2%	security/military/police	13%	0%	6%
travel	2%	2%	2%	company	4%	4%	4%
security/military/police	3%	0%	1%	lawyer	2%	4%	3%
lawyer	0%	2%	1%	admin./secretary	2%		3%
Total			84%	Total			85%

High salary as motivation for career choice is favoured much more by male students at both grade 9 and 12 levels. While family preference is higher for grade 9 boys, this reason is less important for both male and female students at grade 12. The differences are also noticeable when we consider choices made by those aspiring to different jobs (Table 16 below). Engineering is seen to be financially beneficial by engineering students, though students often reported careers in business and finance were also far more lucrative. Overall, it seems that salary is not the main determiner for career aspirations.

Those with highest marks at the end of grade 9 are theoretically freer to choose their secondary school stream but if these earlier reports are correct, then this means that the highest achievers at grade 9 level may not necessarily be looking at medical careers any longer for employment surety, whether or not this area is still considered most prestigious. It seems that students themselves are weighing up opportunities in the labour market as part of their decision-making.

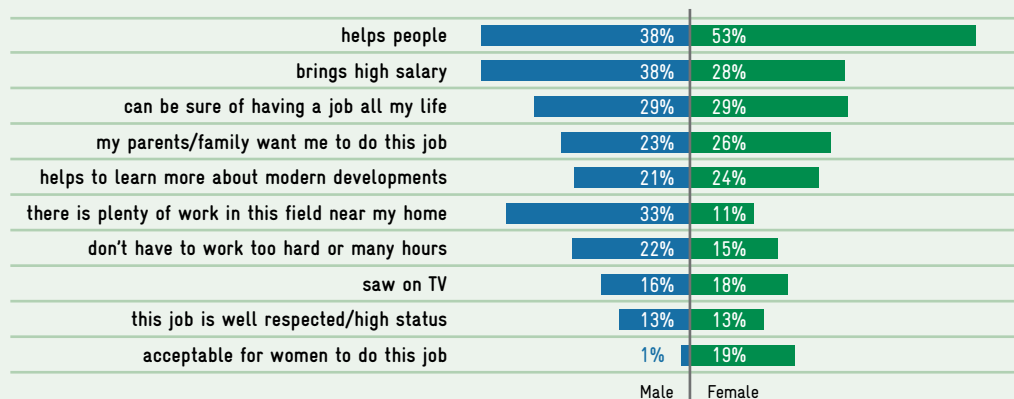
It also appears that those who have studied Economic Sciences, are now focusing more clearly on their future employment with areas including accounting and banking, and work in companies, as well as what is defined more generally as business/finance. Finally, career choice due to social acceptability (i.e., acceptable for women to do this job) is not high on the list, though as we have seen, teaching is a popular choice for female students which we can interpret as being manageable for women combining work with caring for home and children. However, in FGDs with grade 12 female students there was frequent mention of difficulties they faced taking up work in certain careers because of gender reasons, though these perceptions of 'acceptability' may be in a period of transition.

Factors facilitating or hindering finding employment

Both male and female grade 12 students consider that they will have difficulties finding employment. Overall, the greatest reason for difficulties is that marks will not be high enough. This is probably emphasized so much because of the common aim to do higher studies, hence competition for places. Generally higher studies are perceived as the way to get a better job, even in the case of students in Vocational Intermediate Centres. The worry about marks was almost the same for males and females, whether urban or rural, though it appears to be slightly more of an issue with urban male students.

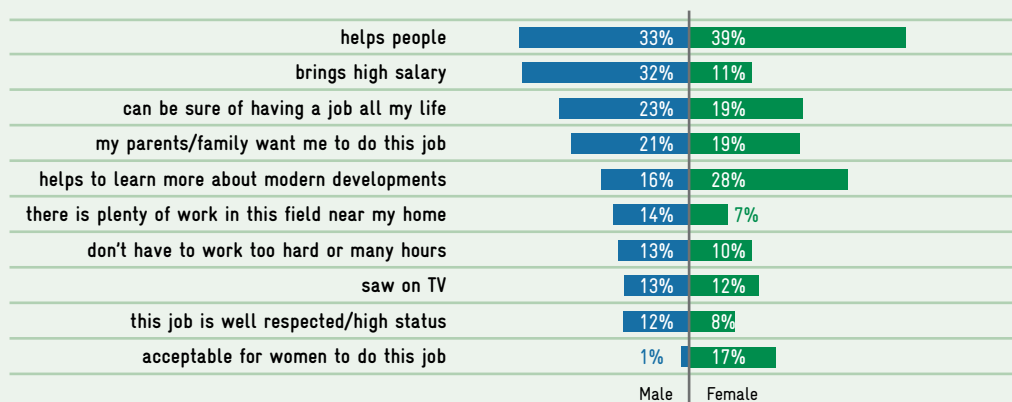
While 14 per cent of urban males and females do not have enough information about courses for higher study, it is more of a problem for rural female students (22 per cent rural and 17 per cent urban females; 14 per cent for both urban and rural males). Living away from home or living far from the place of study is more of a problem for both rural males and females than for their urban counterparts.

Figure 17: Grade 9 job motivation by gender



Note: 10 of 17 choices (motivations) mentioned most frequently by all Grade 9 respondents

Figure 18: Grade 12 job motivation by gender



Note: 10 of 17 choices (motivations) mentioned most frequently by all Grade 9 respondents

Table 16: Comparison of reasons for career choice by aspiration grade 9 and grade 12

Reasons to do the job by grade	engineering		medical		teaching		Total	
	Gr9	Gr12	Gr9	Gr12	Gr9	Gr12	Gr9	Gr12
It helps people		23%	71%	66%	37%	38%	48%	41%
I would really love to do this work		45%		49%		27%		40%
Parents/family want me to do this	34%		40%	26%	29%	24%	36%	24%
This job suits my personality		23%		21%				22%
Helps learn more about modern development	30%	29%			28%		25%	22%
I can be sure of job all my life						23%		
Brings high salary	36%	28%						
Do not have to work too hard/long					26%			
This job is well respected			27%					
Saw it on TV	32%		28%				27%	

When it comes to finding employment after studies are completed, the greatest difference by gender appears at grade 12 level where male students are clearly focused on the help of family members. As Table 17 shows this is a rather even and common concern for both female and male students in grade 9. While grade 12 students are clearer and

possibly more realistic about their career and employment prospects, female students are still very much tending towards provision of employment by the government, a serious issue outlined above.

We were also told of young women who were doing voluntary teaching but then left schools because they did not manage to get government appointments after one or two years. Parents reported that daughters who had trained as teachers were unemployed 'sitting at home'. In terms of career education and preparation, this attitude has to be addressed, not only with the students themselves but with parents who still expect that teaching opens the way for employment with permanent government contracts for women.

There are slight variations of perceived ways to find employment after studies have been completed. Grade 12 students remain relatively confident of finding government appointments though grade 9 students state that they will rely on family. What is significant here is that grade 12 students are quite interested in the idea of gaining practical experience in companies. Certainly in discussions, the importance of work experience was emphasized by grade 12 students as important in obtaining desired employment. It is important to consider this 'work plus study' situation again here because it is clear that male students in particular at grade 9 and 12 levels are working while studying, whether in term-time or holiday time. It is actually not a bad thing at all, as international research on similar study-work patterns show (Hillman, 2001) working during studies (even in secondary school) can better prepare students for the 'world of work'.

Some other differences are between regions rather than on the basis of gender, e.g., living too far from the place of study is a problem identified by all rural students. Grade 12 rural female students most frequently state that they do not have enough information about study courses, possibly reflecting our sample which had more rural female students from Languages and Social Science specialisations and vocational courses. The problem may

not be with the distance from the institutions for higher study but rather with the specialisation and options available when career prospects are considered. Again, the issue may be with the specialisations themselves. Certainly many parents in our study stated that Arabic language and Social Sciences did not offer good prospects for employment.

One other finding which is noted again is that there is a difference between male and female students opting for self-employment (at grade 9 level). In many FGDs, the idea of 'opening an office, a clinic, a workshop' was repeated by students, though it was not the first choice stated by parents. This option needs to be investigated and conditions and training for young women to be enabled to do so, need special attention.

Perceptions of employment prospects

The consideration of career aspirations at the two terminating stages of school education in Libya is interesting but much more important is the question of whether these aspirations are realizable.

Views of the future

Many grade 9 students did not discuss their future specifically in terms of occupation but more in terms of family, having certain items or facilities, and in terms of overseas travel. At grade 12 level there was more emphasis on career choice, though we found that even here, eight per cent of students have no idea about their future work. Higher studies seem the primary focus.

Table 17: Factors facilitating employment

How to find a job after studies?	Grade 9			Grade 12		
	Male	Female	M+F	Male	Female	M+F
Parents/relatives/brother/sister	36%	33%	34%	35%	13%	34%
Wait for government appointment	12%	25%	19%	26%	30%	28%
Write letters	14%	16%	15%	19%	18%	18%
Doing voluntary work	12%	8%	10%	4%	7%	6%
Through newspapers	6%	5%	5%	5%	5%	5%
Work in family business	5%	3%	4%			
Connections	3%	2%	2%	16%	12%	14%
Paid practical company experience	1%	1%	1%	12%	18%	15%
Other	8%	6%	7%	10%	7%	8%
Total	100%	100%	100%	100%	100%	100%

Uncertain labour market

Parents repeatedly talked about the uncertainty of the outcome of their children's studies at all levels. While many believed that higher qualifications would give greater security in terms of finding employment, many others, particularly fathers in rural areas, believed that the only hope for their sons was to follow a vocational trade. Many spoke of the two main options for their daughters as being teaching and marriage. In spite of the fact that female students are extremely well represented in education at all levels in Libya, women (including those graduating from university) are not well represented across diverse fields of employment.

Financial concerns

Parents talked of education and employment issues in financial terms. They spoke of having spent much money for years to ensure their children's education, supporting them with tuition and with travel expenses (especially those in rural areas where options for the various secondary specialisations are now unavailable). Many young people are not earning during their studies, nor after studies have been completed and parents

stated this places a tremendous financial burden on families. Having said this though, as noted above, there is the 'hidden' situation of students in grade 9 working to support families or their own needs. While fewer grade 12 students reported part time or full time work during their final year of study, significant numbers see working in parallel to their future study as probable.

Social concerns

A very worrying finding which was repeated in several shabiyas is that there are growing social problems resulting from unemployment. Parents talked about their children, unemployed after graduation from higher studies being 'depressed, frustrated, losing motivation, and disappointed'. Parents also talked openly of graduates 'sitting at home', 'being on the streets', or in desperation, becoming involved in illegal activities such as drugs, and criminal activities including stealing and illegal migration or people smuggling. This is a serious matter if years of education and raised expectations lead to unemployment. 2011 events can be linked to this.

Loss of capacity

While many argued that Libyan graduates were not suited or ready for employment, the broad labour market continues to have particular skill needs and requirements. Some parents reported that after years of unemployment, the formerly 'qualified' son or daughter had forgotten or lost all skills, and that their knowledge and capability was out-of-date, almost admitting that their children were actually no longer employable. It was common to hear fathers complain that they needed their educated children to help the family financially.

While the question of employment and with it unemployment, under-employment, or employment in areas in which graduates have not studied, is a huge question and beyond the scope of this report, it is nonetheless an important consideration in any study considering career aspirations and education which prepares students for a diversified labour market. This report could include hundreds of statements from students and parents about many unemployed graduates they know. Fathers in one discussion were not unusual when they vigorously stated: 'young men say why study when they look at others. This has affected them so badly!'

An additional issue if we consider the tens-of-thousands of students graduating from grade 12 in a given year, and consider those graduating from universities and higher institutes after approxi-

mately four years (i.e., when this same cohort of students should be graduating), we find huge discrepancies in numbers. For example, in 2003 approximately 55,000 students graduated from grade 12 secondary 'specialised' schools. In 2007, only 29,000 graduated from universities and higher institutions. Where are the others?

Considering these figures, if all had actually gone on to higher education as has often been reported, 2007 numbers show that only 52 per cent graduated on time. This may mean that not all students actually went on to study. It may mean that some are still studying, have left studies incomplete, have gone overseas for study or work, have joined the labour force, or are unemployed. There have been some deliberately extended periods of study as we were informed by parents in one rural school in Benghazi. Students were deliberately extending their studies because of government subsidies given for hostel payments. However, almost 50 per cent not graduating raises more questions than our research can answer.

It has also to be noted that Libya is singular in the respect that almost 300,000 students were enrolled in Libyan universities and higher institutes in 2008-2009, compared with 207,471 students enrolled in the secondary school cycle. The question is, if so many are going (or overstaying) in higher education, how many will actually find employment in their field after all their studies.

Even when parents were asked what would be done after all these studies, they continued to talk in terms of 'more studies' or post-graduate studies. It is unclear whether parents believed that the highest possible qualifications would ensure employment, would ensure prestige employment, or whether employment was so unsure, that they believed somehow 'certificates' would offer their children the best chance in future.

Table 18: Motivation for higher studies by gender

Motivation	Grade 9			Grade 12		
	F	M	F+M	F	M	F+M
Better job	60%	65%	62%	62%	77%	68%
Parents	27%	26%	27%	19%	15%	17%
Friends	5%	4%	4%	3%	1%	2%
other	8%	5%	7%	16%	7%	12%

Schools, curriculum and employment

The question which we continued to ask was: what can schools do better to prepare students for employment. Three key issues emerged again and again: facilities and equipment, the quality of teaching, and the curriculum.

Facilities and equipment

The absence of appropriately resourced science laboratories was constantly noted. In one school we saw a 'new' science laboratory being installed for Basic Education. The room had tables, seats, but no water or gas for doing any type of practical work. It was not a laboratory although it had decorative science models around the room. This was not an isolated case. Many laboratories were not functional and it was clearly impossible to conduct modern science lessons in such settings.

Repeatedly students commented regarding the absence of practical learning and the reliance on theoretical and book learning - 'memorisation, and theory'. This was particularly the problem reported in regard to Social Science and other 'theoretical' specialisations as distinct from so-called 'practical' science specialisations, which in fact appear frequently to be taught without functioning laboratories and without students doing the experimental work themselves.

Teacher demonstration is not active student learning. Our report is not the first to make such observations and to recommend practical (as distinct from theoretical) upgrading of teachers to fit a modern education system. Without this, little will improve.

Language students repeatedly asked for language laboratories, cassettes, CDs, videos and DVDs which could support their learning. We continually found language laboratories which were not functioning and which had no resources, and a lack of appropriate libraries with books and magazines in

the foreign languages being taught. In fact, libraries in the real sense are non-existent in Libyan schools though there are good examples of this in other countries of the MENA region which could provide good models upon which to base proper working libraries.

The majority of grade 12 students in this study commented that English language and computer literacy was essential for employment.

This is the first thing employers ask us the ones who can speak English and can use computers get jobs easily in the modern world these things are essential we should be able to use computers for many subjects not just learn it in computer class we need internet in schools but our school has none.

Parents who were teachers told of us other problems related to the new mathematics and science curriculum adapted from the Singapore model: 'Most lessons depend on laptop computers but students and teachers don't have them. Most lessons need access to internet but they have no access.'

The situation in several Vocational Intermediate Centres was the same. While we observed very well equipped workshop rooms in city locations, it was reported at one centre, 'we have a computer lab but it is only for the teachers, we don't use it. No one else enters this room except the Director.' Even though computer studies may not be included in technical courses such as mechanics, air-conditioning and cooling, and carpentry, one could ask why extra skill development was not possible, especially when the Director had stated that they conducted courses for 'outsiders' using the same computer laboratory. In the case of the rural vocational centres visited, the situation with workshops and equipment was dismal. In another vocational centre computer students complained, 'we have no practical training with computers and only a few times get a chance, and it was mainly in

second year'. Welding students also reported 'we had some practice in first year but after that nothing, only theory'.

In one secondary school which doubles as a vocational centre in the afternoon, fathers reported:

Vocational is taught here in this school building in the afternoon but there are absolutely no labs and workshops for them. They imported a carpentry lab but there is no carpentry teacher and many of the very modern new machines have parts missing so this workshop which they set up some distance away from this school just remains shut.

Again the problem of theoretical study was emphasized.

Ninety-five per cent of those who come out of these institutions stay at home and they don't understand anything. There is no practical! The vocational intermediate studies held here in this school in the afternoon has no workshops, no labs, and no equipment. They teach mechanics, air conditioning and cooling and carpentry... but there are no teachers for this. There is only theory in our schools.

The quality of teaching

This situation with poorly equipped and resourced laboratories and workshops might also be connected to the fact that teachers have never had practical training and education. Many teach the way they were taught.

While Libyan statistics officially showed the teacher-student ratio to be 1:6 at Basic Education level and 1:3 at Secondary level which suggests there is no problem with the number of teachers, there is a serious concern with respect to deployment of 'specialised' subject teachers. Many subject specialists had no profound pedagogical training.

There were repeated comments from parents that teachers were often weak in their subjects, were appointed without background or training in their subject area, or had very poor skills when it came to teaching and promoting learning in the classroom - so much so, that at grade 9 level, two thirds of all students surveyed, were paying for extra tuition in mathematics, English and science outside school hours. At grade 12 level almost a quarter of all students, as well as parents complained about poor quality teaching.

Teachers are not to be blamed here but it is critical to consider why people are being appointed as teachers, and how they are prepared. If appointments are made because university graduates have no other job, if people who are appointed as teachers do not want to teach, and if people appointed to teach cannot do so, the situation will not improve. While this report could make many recommendations about improving the quality of teaching and learning in schools, it seems necessary to state that teaching should not be seen as the place to put all women who cannot work in other fields. Many do not want to be teachers, except for the reason that it fits with family responsibilities and home duties, or the reverse, female students reported that they wanted to be teachers because it is a half time job. As one social worker complained, 'the new curriculum cannot work because in Singapore (from where it came) they have a full day of school but we only have a half day in Libya. We don't have enough hours.'

Students more frequently than not, complained that books were too long and there was too much to cover. Teachers complained that chemistry, for example, had topics in it which are included in the final years of university chemistry. As one chemistry teacher stated: 'teachers are unable to explain some topics because they don't even understand themselves'.

The curriculum

The most critical consideration in regard to the entire secondary specialised school curriculum is whether it is appropriate for the general world of work or rather for study after secondary school ends.

It should be added that at the time of this research, experts from the Curriculum Department reported that the secondary school curriculum was about to undergo a massive revision, particularly to bring it in line with modern curricula in other countries. To a great extent, that has been put on hold.

From interviews with several senior education officials, it was still not clear exactly why specialisations had been introduced into Libyan secondary schools other than to prepare students for university study. This was repeated constantly. Not once was preparation for employment stated. Overwhelmingly, parents and school head teachers stated that the former system of secondary education was better than the current one with its six specialisations. They also said that it was far more appropriate for students to do a common grade 10 after which they choose their path for the final two years of secondary school. Constantly it was stated that students were too young to decide at grade 9 level.

The other constant complaint was that marks determined secondary school plans. Parents stated that students should be free to study any option and not be forced into streams which determined and even limited career choices and hence life chances. A comment typical of many was:

My son didn't want to do Arabic but his marks were so low so they made him do it and now he is confused where to go because it wasn't his desire. He wanted Economics but his marks decided everything.

Parents were also worried that certain specialisations had few employment prospects:

New graduates have no chance for work here so they go far away south but they are not happy with the money. They do teaching or simple jobs. They have no motivation. They are told to accept Arabic specialisation but no graduates get jobs so why accept them into that stream.

As noted in previous chapters, some parents see Arabic language study as having no employment prospects:

Engineering or science will get jobs in future but I think Social Science and Arabic gives no chance for the future some streams lead to no job because of the huge number of graduates my daughter wanted Arabic but I insisted English because of jobs.

In summary, parents did not appreciate specialisations as ways to find employment. They disagreed with the policy of marks determining placement in secondary schools, repeatedly stating that grade 9 is too early to decide or too early to be 'streamed' narrowly. They considered that certain specialisations were without prospects in terms of future employment. Parents, teachers, and head-teachers were largely of one mind that a general secondary education, perhaps with the Maths/Science or Arts/Humanities division was better and still allowed plenty of opportunities for students to later specialise at university level.

Parents talked of narrow and limited choices: 'The old system should be applied again in small cities because it allows more choice'. Often in rural schools they commented that students could previously study the general secondary school program without having to narrow their options, and that this allowed more equal chances for all. Once specialisations were introduced, schools could no longer afford to offer all courses, and many head teachers said they did not have specialist teachers or special equipment required for new specialisations.

Several senior educational officials agreed that the secondary school specialisations were not a good preparation for life. Sound educational practice behind their introduction was absolutely unclear. One official reported that the specialisations are supposed to prepare students for university but it is not clear if all students proceed to higher studies or if the specialisation is then actually pursued at university. Certainly, some students reported that they wanted to change their field of study once they were at university because they were unhappy with the area they had been compelled to study.

It is also not at all clear that the decision to introduce specialisations was based on sound manpower and labour market planning. Considering students are compelled to stay in a narrow specialisation area presumably to study further as Table 19 indicates, there will be an over-supply of people without broad education which might open up more opportunities.

Furthermore, the two study areas which concern parents most - Languages (half Arabic) and Social Science, together account for more than 33 per cent of grade 12 students. None of these students have studied any mathematics or science subjects beyond grade 9. None have studied any general economics subjects, and none have had the chance to study other elective subjects, so it is clear why parents are concerned. If we take the criticism of narrow and rigid specialisations alongside criticisms of theoretical 'bookish' learning, we can conclude that students have few practical competencies to help them adapt to a broad labour market demanding more than certificates.

Having said this, we note that there were exceptional cases of well-equipped and resourced vocational centres, and we present the Vocational Intermediate Centre for female students in Misrata as one case study for consideration.

Table 19: Secondary school enrolments by specialisation 2008/9

School year 2008 – 2009	Year 1 (Gr 10)	Year 2 (Gr 11)	Year 3 (Gr 12)	Total
Basic sciences	10,947	9,170	11,676	31,793
Economics	9,341	9,272	9,999	28,612
Engineering	10,621	10,579	13,834	34,575
Languages	18,180	18,927	15,081	52,188
Life Sciences	9,912	11,082	16,663	37,657
Social Sciences	4,405	6,702	11,089	22,196
Total by year	62,947	65,732	78,342	207,021

Case study: Misrata Vocational Intermediate Centre

Not all we found was negative. Libya has its own share of good examples of secondary education. Misrata Vocational Intermediate Centre for female students is one of these. Located in the heart of Misrata, this centre caters for female students who have finished Basic Education. It offers computer studies, engineering drawing, and design and tailoring. The Director saw opportunities for additional studies, e.g., using equipment the Centre had received to train optometrists.

It is a pity we cannot do this at present but we must have the curriculum and teachers but I know this is the right level to do this. In other countries, it is done in training at the same levels as these students. This would be a good area for women to study and work in. There is a real need in this area of employment. There is much we can do here in Libya which will help for employment.

Though some students came here because the vocational option was open to those whose marks were not high enough to go into other specialised secondary schools, others chose the centre first because the study areas were seen as good in terms of finding work.

I came here because I wanted to do engineering drawing. It was my choice I love computers and this was my chance to do it and to do it well I wanted to do economic science but now I am here and I am in third year, I just love my computer studies I want to be a fashion designer in future and to have my own business as a designer. This is a good start for that.

The focus is on practical skills as well as theoretical knowledge about their subject areas. Students here wear uniforms but that is often where the differences between this and other secondary schools end. Students were confident that they would find work.

Parents and people from businesses and companies visit the school on open days to get a better idea of what is being achieved by the students in the centre. This is all part of a focus on linking education and employment placement.

In Misrata, these young women were looking at possibilities for employment in companies. Previously there had been many possibilities in garment factories though at the time of research it was reported that foreign workers were replacing Libyans in this type of work, especially in Chinese operated garment factories. Students were quite interested to work in this area though opening their own business was also attractive for them.

Self-confidence is important and the school produces graduates with positive attitudes to careers.

We have the Project Management subject in second and third years and this is a great help. It is a practical start though of course we will need much more to open our own business.

One final point which must be made before ending - if the 'best' students go to Life Science, one could say that Libya has an elite system of 'schools for the most talented' and 'schools for the medium talented' and schools for the 'weakest'. Furthermore, if all the 'best' students go to Life Science, what does this mean for the development of all other sectors in Libya? Does it actually mean that the weakest students end up as teachers?

In this Misrata centre we saw another way for secondary education – a way which should be promoted and developed so that it becomes more than the second choice for Libyan students, especially in terms of employment prospects.

6. Implications for the future

This study focused on career aspirations of young people in Libya, especially with a focus on the secondary education system. Since it was completed, many things have changed in Libya. There has been a mass exodus of foreign workers, and unknown numbers of young people have left studies overseas to join various political groups in the uprising. Equally unknown numbers of young Libyans have left the country seeking asylum and a better situation than they are currently faced with in Libya, especially in regards to employment. Though the uprising has been influenced by multiple causes, one is surely youth unemployment, if media images are anything to go by. This study was not carried out in the context of the current political situation but it was conducted in a situation where youth unemployment was certainly a major issue. The study has not been rewritten in the light of these developments but reading it again brings to the fore issues of quality schooling which is relevant for fulfilling employment prospects for young people in Libya.

As part of the study, recommendations were made in the public presentation to the educational administration. Ideas from other countries which might be possible for Libya were also requested. The recommendations are summarised here because the wider issues of unemployment and under-employment in Libya are a matter for many government sectors, not only and not principally the education sector. It is necessary to state at the outset that there are certain things which are completely out of the hands of the education sector and which must be addressed elsewhere in government planning. It is important to be realistic about what can be achieved in the short-term and what

will take longer. These recommendations focus more on the short term and what schools can do to introduce students to the 'world of work', rather than attempting what is almost impossible - to solve national youth unemployment.

Having said this, it is important to reinforce other recommendations which continue to be repeated in reports. The secondary school curriculum needs to be examined intensely in order to gauge its relevance to the world of work. The quality of teaching and learning in all respects and at all levels must be radically improved, especially for Basic Education and Secondary Education. In order to do this, teaching must change, with good teachers trained, appointed or redeployed to schools in need. This report cannot deal with this huge subject but it reinforces the urgent need to address these issues.

One recommendation which is directly related to the area of careers and employment in this study is related to the current model of specialised streams in secondary schools. There is no proof that the secondary specialisations model prepares students better for work or for study, hence it is recommended that it be considered alongside other models operating in many other countries. Reconsideration of the structure of the overall secondary curriculum should include extensive exposure visits by relevant educators from different sectors to investigate advantages and disadvantages of other models with a view to improving the current situation. This has started in 2009 with adoption of the 'Singapore curriculum' for Mathematics and Science in Libyan schools.

If secondary school students are introduced to the world of work through a careers' curriculum, successful models must be collected from other countries. Secondary students require generic Information Technology skills training and foreign languages for communication which can be used in the workplace. They need to be introduced to the world of work through different measures long before the end of secondary school. Introducing career-advisors for middle or upper secondary schools should be considered, along with appropriate models of in-service training for teachers or social workers to take on this role on a full- or part time basis.

Work experience programs can be seen through international study visits and visiting educators involved in such programs investigating possibilities for implementation in the Libyan context. It is also recommended that appropriate educators spend an extensive time in schools which operate with an official 'work plus study mode'. Practical entrepreneurial subjects relevant to a wide field of small business development can be developed as elective subjects for secondary school students.

Parents' committees could work at the school level to assist with organizing work-experience placement, arranging excursions, and offering their services as guest speakers because of their years of work and employment in diverse fields. It is important that changes are discussed widely in all shabiyas (somewhat difficult in the current situation in Libya but implementable in the long run), and that experiments are well documented and trialed in selected urban and rural schools in different shabiyas before a country-wide roll-out (which may happen sooner or later).

Libya is a small and theoretically wealthy country. It would be trite to say that young people are one of its greatest resources, however, with the right educational nurturing, improved and appropriate planning for the labour market, and a complete overhaul to bring teaching and learning processes to meet demands of a modern society and economy, Libya could pave the way with a new model for its youth.

Competencies for Development – A New Role for Education

From Prof. Dr. Gerald Braun



Executive Summary

At the beginning of the 21st century, the Libyan education system was confronted with new challenges: (i) globalization (ii) the knowledge-driven economy (iii) growing unemployment (iv) shortage of advanced competencies required by the labour market. These challenges change the fundamentals of any development strategy. Education is no exception: The education system of Libya has to produce competent and motivated human capital to be able to compete nationally and internationally. This requires a shift in what is being taught in schools and how it is taught, to enable students to acquire the necessary key qualifications and competencies – and to upgrade these competencies over time.

This Labour Market Study ‘Competencies for Development - A New Role for Education’ is part of the Libyan-German partnership project ‘Improvement of Basic and Secondary Specialized Education’ which was by the Libyan government. It is included in the focus on strengthening the linkages between the education system and the society’s needs, in particular, the needs of the labour market.

Specifically the study aims (i) at an assessment of the needs of the private business sector and the public sector for specific competencies, skills and attitudes of Libyan manpower, (ii) at the development of recommendations on how to match the competencies acquired during formal education with the requirements of a modern economy.

The study applies a holistic and a competency approach, analysing both the supply side (the education system) and the demand side (the employment system) and applying a competency-portfolio approach. The study proceeds from three methodological assumptions: (i) A most-different-systems approach, which applies a combination of quantitative and qualitative tools of empirical

research, (ii) an interdisciplinary approach, which combines different scientific disciplines, (iii) a participatory approach, based on an intercultural team of experts, that integrated Libyan stakeholders from ministries, representatives of the Libyan and the foreign business community, and researchers into the planning and implementation of the study. Altogether close to 450 people participated in the study.

Despite the global economic crisis more than 80 % of the respondents are optimistic about the future economic development of Libya. In a DELPHI-sample they forecast annual growth rates of real GDP between 5-7 % until 2015. The most dynamic sectors will be (i) construction, (ii) oil & gas, (iii) trade, (iv) telecommunications, the least dynamic agriculture and manufacturing. The respondents see the urgent need for labour market related reform of the educational system – but also of manpower potential of Libyan nationals as well.

Main Findings

Competencies of Graduates (Supply Side)

- (1) One of the success stories of Libya has been the improvement in education with respect to access and equality, e.g. adult literacy level, enrolment rates, transition rates, female literacy and gender parity. These quantitative indicators are considerably better than even in many MENA peers. Unfortunately Libya performs poorly in overall quality of the educational system, ranking according to the actual Global Competitiveness Report 128 (basic education) and 138 (higher education) out of 139 countries.
- (2) The competencies of the school and university graduates are to more than 50 % unsatisfactory – and only to 5-10 % good. This is an alarming negative result, shared by the majority of the graduates and the private business community in our study. The separation of the education system – of teachers, curricula, learning culture – from the economy is heavily criticised.

- (3) Differences exist according to (i) gender: the competencies of female graduates are – on average – significantly better assessed than males, especially with regard to positive work attitudes; (ii) Libyan – non-Libyans: Non-Libyans are better evaluated than Libyans; (iii) educational level: graduates from tertiary education (higher vocational centres and universities) are better assessed than graduates from basic and secondary education (secondary schools and intermediate vocational centres), (iv) two streams – specialised secondary 6-streams system: the specialised system is assessed negatively, specialisation being too early and too narrow; (v) vocational-general education: vocational training graduates (intermediate and higher vocational centres) are comparably better evaluated than general education leavers (secondary schools and universities).
- (4) Regarding different competencies, the respondents are missing ‘methodological’ competencies (analytical thinking, problem solving, presentation techniques, data interpretation) and ‘entrepreneurial’ competencies (taking initiative, performance orientation, achievement motivation). Entrepreneurs and managers especially criticise negative work attitudes of graduates like public sector- and white-collar orientation, unreliability etc. Additional criticism concentrates on: Shortage of foreign languages, low morale, corruption, of IT and computer courses, weak methods of teaching, lack of competencies of teachers, no quality assurance systems.
- (5) There exists to a great extent a mismatch between the competencies developed by the education system – and the competencies needed by the labour market. To exaggerate: The education system produces competencies which are not needed by the job market, and the labour market needs competencies, which are not produced by the education system. Growing unemployment of many educated graduates (estimated 30 %), especially women being one consequence.

Requirements of the Labour Market (Demand Side)

- (6) At present the Libyan labour market is characterized by: High regulations, dominance of employment in the public sector (up to 70 %), constrained private labour employment, increasing percentage of better qualified graduates and females, growing informal employment. In addition the co-existence of increasing unemployment of higher qualified nationals and high numbers of foreign – legal and illegal – workers is a specific feature of the Libyan labour market.
- (7) Public sector employment and promotion policy is based on certificates, to a lesser extent on competencies. Private sector employment and promotion policy is based on competencies, to a lesser extent on certificates.
- (8) Lack of qualified Libyan manpower is the most important obstacle to economic development, technological change and prosperity. At present Libya’s labour market can be characterized by two developments that have lowered the economic returns to investment in education: Rising unemployment and lower productivity of those employed, because of over-employment and welfare-employment (‘ghost workers’) in the public sector.

- (9) Relatively modest labour market outcomes are the result of structural imbalances between the supply and demand for labour. On the supply side increasing numbers of graduates from secondary and tertiary education – especially women – contribute to a rapid expansion in the supply of labour. On the demand side, labour-saving growth and/or displacement of Libyan graduates through migrant workers has continued. As a result, a mismatch between the supply and demand for skilled and unskilled labour is growing, leading to rising rates of unemployment for Libyan nationals.
- (10) High public sector employment has led to a suboptimal use of labour and created expectations, which are an obstacle to private employment. Bureaucratic labour market regulations have constrained the growth of a productive and dynamic private sector. Therefore education reform in and of itself will not be sufficient to produce higher economic growth and development. The full benefits of better, job-oriented education can only be reaped, if complementary reforms of the labour market will be implemented, which increase the demand for more productive human capital.
- (13) There exist no institutional mechanisms for external stakeholders to give inputs into education planning and management. A continuously improving education system needs to be open to the views of those within the system – administrators, headmasters, teachers, and students. Parents also have limited opportunity to contribute to the education debate or influence inputs to the system.
- (14) In addition, the education system needs the views, experiences and interests of those who receive its products: the business community and the wider economy. The private sector has no focal point for coordination and cooperation.
- (15) Qualitative deficiencies in education have resulted from a variety of factors, including overly centralized management of education, little assessment of performance, and promotion of headmasters, teachers and administrators based on seniority rather than performance.
- (16) Finally, the absence of complete and reliable data on education expenditures/no of teachers/school equipment etc. allows continuing inefficiencies in resource allocation.

Problems of Educational Reform in relation to the Labour Market

- (11) There is no clear responsibility to assess the future competency and skills requirements of the labour market, which need to be balanced with the supply of graduates of the education system.
- (12) The kind of integrated thinking required for education reform is missing, e.g. identifying the implications for curriculum, teaching resources, school facilities, teachers further training etc.

Recommendations: Competencies for Economic Development

Few of the following recommendations are entirely new. Some of them are already being implemented in some innovative institutions. Others are so far-reaching, that at present they are beyond the horizon of both – the educational and the business community.

But in contrast to many benevolent proposals from outsiders, how to improve the linkage between the education sector and the labour market, the recommendations have an invaluable advantage: They have been developed by practitioners, by entrepreneurs, public managers and educationalists who are familiar with the Libyan education system and the labour market

(17) Looking ahead: In search of new paradigms (for details see chapter 9) The respondents of our study propose 5 important changes educational paradigms as necessary and sufficient conditions for improving the linkage between education and the labour market:

- From employment to employability,
- from quantity to quality,
- from certificates to competencies,
- from learning to performing,
- from teacher-led to student-centred education.

(18) Long-term recommendations

18.1 It is essential to have a tight coupling between the outputs of education and training and the labour market demand, and economic policy in general. This requires defining the workforce requirement of all product and service sectors, including those of foreign companies in order to contribute to economic development instead of making the educational institutions to mere instruments for graduating jobless people.

18.2 It is important to set up a general strategy compatible with education policies, scientific research, and the general objectives of socio economic development in Libya. The experiences of emerging nations in the field of human resource development, scientific research centres as well as universities should play a significant role in the society to provide a future vision and to find solutions to the problems of the mismatch between graduates of the education system and the labour market.

18.3 Attention should be given to vocational training by increasing its investments instead of relying heavily on the general education expenditures. Technical and vocational education is more capable to produce skilled graduates, who are needed in production-oriented activities.

18.4 To support the investment of the national private business sector in human resource training, loans, provisions of tax exemptions, depreciations on training expenditures etc. should be provided by the government as incentives. The objective is to increase substantially investment in human capital by the private business community – and to establish Private-Public-Partnership.

18.5 Rapid economic and technological change worldwide has raised the level of competencies required to be competitive in global markets. To adapt, Libya must continue to expand the availability of higher education and specialized training programmes. Apart from expanding access to higher education and deepening the competency base, Libya must address the quality of educational outputs and competency mismatches that contribute to growing unemployment amongst Libyan graduates.

18.6 Modernising and transforming the education system to include the development of the missing ‘methodological competencies’ like foreign languages, computer sciences, presentation techniques, information collection, data interpretation and ‘entrepreneurial competencies’ as problem-solving, analytical thinking, taking initiative, proactive behaviour, innovative thinking, performance and achievement orientation.

18.7 Special attention should be given to: (i) foreign language courses, (ii) computer science programmes, (iii) communication skills, (iv) administrative skills, (v) report creation, (vi) skills in information and library research and (vii) entrepreneurship education as they are directly related to the demands of the labour market.

18.8 A general plan for introducing the above mentioned competencies in the national curricula, starting with basic schools, should be established.

(19) Medium- to short-term recommendations (for details see chapter 10): To improve the labour-market orientation of the Libyan education system – including basic and secondary schools, vocational centres and universities – several medium-to short-term measures are proposed by the private and public managers (although sometimes in a different order). By applying a Triple-Helix-Model (A) Education System (B) Cooperation Education – Labour Market (C) Private Companies:

- A. Educational Institutions
 - A.1 Labour market orientation of curricula
 - A.2 More and better language education and IT-competencies
 - A.3 Improving the business orientation of teachers/instructors and professors
 - A.4 Better laboratories/libraries/computer cabinets
 - A.5 Improving work attitudes and learning adequate behaviour
- B. Improvement of cooperation between private companies and public organisations and educational institutions
 - B.1 Ensuring a regular dialogue between business communities and educational institutions
 - B.2 Conducting joint work attitude projects
 - B.3 Developing of common business/education projects
 - B.4 Establishing of a permanent committee with representatives of business organisations and educational institutions
 - B.5 Launching of financial cooperation models

- C. Contributions of private companies and public institutions
 - C.1 Providing internships for pupils and graduates
 - C.2 Supporting the development of job oriented curricula
 - C.3 Providing internships for teachers/pupils
 - C.4 Teaching practical business processes by entrepreneurs
 - C.5 Supporting educational institutions

As is normal for pluralistic societies, different opinions exist between the respondents about priorities, speed and implementation of the proposed measures. But there seems to be a common understanding that there exists no realistic alternative.

1. Challenges and Chances

At the beginning of the 21st century, Libya – as the rest of the world - was confronted with at least three challenges and chances, which are historically without precedence:

Globalisation developed during the last two decades at a historically unprecedented new dimension. New actors like the BRIC-countries (Brazil, Russia, India, China) and new institutional arrangements like the WTO (World Trade Organization) have changed the international system substantially, integrating a growing number of markets and nations into the world economy. As globalisation proceeds, major sectors now contained within national economies will increasingly become part of global markets either through trade or investment or both. Libyan businessmen clearly understand that they must create the conditions for the Libyan people to develop products and services that can be sold profitably in international markets. These are the non-negotiable requirements of contemporary economics.

Knowledge Economy: Driven by a permanent revolution in information technology knowledge, its renewal and application has become the driving force for sustaining competitiveness and economic development. In today's world, characterised by intense international competition and rapid technological change, the key to development is a well-educated workforce producing knowledge-intensive goods with high-value added. The workforce has to be employed in enterprises that have the entrepreneurial spirit and the capacity to innovate; to sell new products with up-to-date technology in domestic and global markets. In short: Modern economies are knowledge-driven. Since education is the main source of knowledge creation, the task is clear: the education system has to deliver the

new competencies, skills and expertise necessary to excel in a competitive global environment.

Population Growth and Unemployment: Although population growth (1.9 % annually 2005-2010) in Libya is expected to decline in the future, demand for education will increase as the 'baby boomers' work their way through the system. These 'baby boomers' and the profile of human capital they bring with them will ultimately determine if and how the country will develop in the next decades. The 'baby boomers', who are set to join the existing workforce in Libya will pose an enormous challenge for labour markets. About 125,000 additional jobs will have to be created between 2010 and 2030 annually only to employ all additional entrants to the labour market – without trying to eliminate existing unemployment. To achieve these results, Libya will have to maintain average annual GDP growth rates of 6-8 % per year over the coming decades. The past years have already been characterised by record pressures on Libya's labour markets, including unprecedented increases in the labour force, a rapidly growing share of women, and young graduates with higher education levels.

Unemployment is high and growing, particularly among the young, the better educated and women. Unemployment is estimated to be at least 30 % of the total population (1.9 million) in working age (for details see chapter 4). Paradoxically, Libya imports a substantial number of foreign workers for both skilled jobs and manual labour. There are estimated to be up to 2 million legal or illegal foreign workers in Libya. Obviously the private business sector finds it difficult to employ skilled and motivated Libyan graduates.

There is a mismatch between the competencies the economy requires for the job market, and the skills and attitudes Libyan workers bring to the table.² The co-existence of unemployment (by Libyans)

and imported employment (by foreigners) indicates, that the Libyan education system produces competencies, which are only to a very limited extent required by the labour market, and that the labour market requires competencies, which are only to a very limited extent produced by the education system.

The education system in Libya has been described as disconnected from the demands of the job market, which needs a 'job-ready' workforce. Representatives of the business community and of the government have stated, that this mismatch between the competencies acquired during formal education and the demands of a knowledge-based economy can only be overcome by a stronger labour-market orientation of the education system.

To meet the challenges of the 21st century the Libyan government commissioned the GIZ / International Services to conduct this study in the frame of the Technical Cooperation Project for Improving the Quality of Basic and Secondary Education in Libya to assist planning for education in relation to the requirements of the job-market.

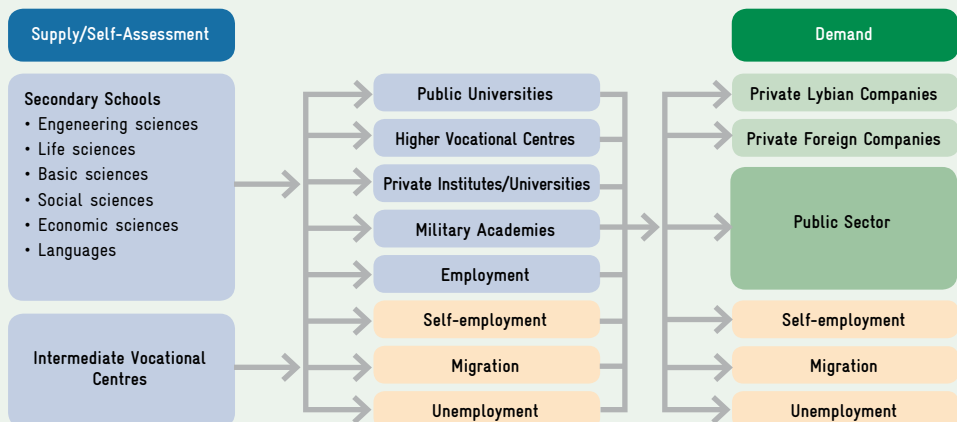
2. Design of the Study – A Holistic and Competency Approach

Objectives and Conceptual Framework

Specific objectives of this Labour Market Study are:

- (1) To assess the competencies, skills and attitudes produced in the Libyan education system (basic, secondary/intermediate vocational/higher vocational and university) by the graduates themselves (self-assessment) with regard to the needs of the labour market (supply side).
- (2) To assess the needs of private businesses, both Libyan and foreigners, and the public sector for manpower according to specific competencies, skills and attitudes required (demand side).
- (3) To propose recommendations to improve the linkage between the education system and the labour market with the aim of reducing the gap between the competencies of graduates and the requirements of the labour market.

Figure 1: Conceptual Framework of the Study



Source: Braun, G.; GIZ / IS 2009.

The study proceeds from two specific assumptions regarding scientific approach and competencies needed in a knowledge society – a holistic and a competency approach:

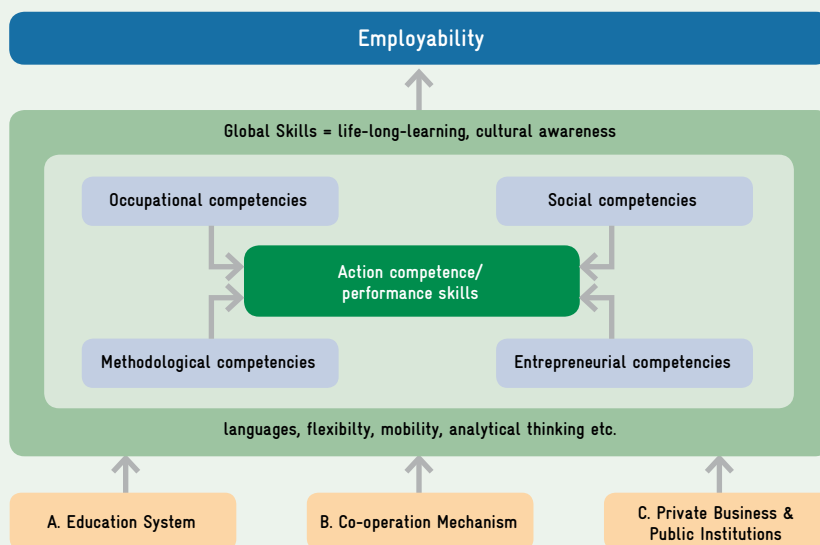
In line with the latest scientific approaches and demands of international organisations the following study conceptualised a holistic education-labour market framework, analysing and connecting the supply side (= output of the education system) with the demand side (= input of the labour market).³

On the **supply side**, the study focuses on graduates of (i) secondary schools, (ii) intermediate vocational centres, (iii) higher vocational centres, (iv) universities, (v) post graduates.

On the **demand side**, the labour market has been divided into the following analytical categories (i) Private companies (distinguishing between national/ Libyan and international/foreign companies) and (ii) The public sector (distinguishing between public educational institutions + public health institutions + state companies).

In knowledge-driven economies the need for 'soft skills' and competencies like entrepreneurial thinking, performance orientation, achievement motivation, innovative behaviour, team-work, has grown, while the need to conduct more routine tasks has declined.⁴ A competence 'portfolio' is a necessary condition for **employability**. "Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment".⁵

Figure 2: Employability and Key Competencies



Source: Braun, G.; GIZ / IS 2009.

³ Fasib, T.: *Linking Education Policy to Labour Market Outcomes*. World Bank, Washington.D.C 2008.

⁴ E.g. Winterton, J.; Delamare-Le Deist, F.; Stringfellow, E.: *Typology of knowledge, skills and competences: clarification of the concept and prototype*. Research report elaborated on behalf of Cedefop/Thessaloniki. Toulouse 2005.

⁵ European Agency for Safety and Health at Work: *Data to describe the link between OSH and employability*. Luxemburg 2002, p. 18.

International research agrees that key-competencies is a “useful” term, bridging the gap between education and job requirements. Consequently pedagogical reforms implemented world wide have emphasised two main ideas (a) the introduction of student-centred learning and (b) the adaptation of key-competency based education, introducing instead of teaching merely cognitive and manual skills the development of a competency-portfolio⁶ consisting of (i) occupational competencies (literacy, numeracy, foreign languages, cognitive and manual skills), (ii) social competencies (complex communication, team-work, net-working) (iii) methodological competencies (analytical thinking, problem solving, presentation techniques, information and communication technologies), and entrepreneurial competencies, including val-

ues and attitudes like achievement-motivation, risk-taking, creative thinking and innovative behaviour.⁷

In accordance with international research and educational reforms the Labour Market Study is based on the hypotheses, that the command of this portfolio of competencies is a necessary and sufficient condition for employability, i.e. for competing successfully in the labour market in an increasingly more complex and changing world.

In total 371 respondents were involved covering graduates (174) and managers from the private (104) and public sector (93). For the distribution of the correspondents according to the Shabiyas see Table 2.

Table 1: Sizes of the Sample of the Study

Supply Side:		Demand Side:	
Self-Assessment of the Graduates	174	Private Sector	104
Secondary Schools:	19	Private General Managers: (50 Libyan, 21 foreign)	71
Intermediate Vocational Centres:	23	Private Human Resources Managers: (22 Libyan, 11 foreign)	33
Higher Vocational Centres:	54		
Universities:	61	Public Sector	93
Post Graduates:	17	Public General Managers:	46
		Public Human Resources Managers:	47

Source: GIZ / IS 2009. Numbers refer to numbers of questionnaires / respondents, excluding additional in-depth-interviews.

Table 2: Distribution of the Respondents according to Shabiyas, as percentage

Respondents	Shabiya			
	Tripoli	Benghazi	Sabha	Misurata
Graduates	47.0	25.0	23.0	5.0
Private Sector	59.2	25.3	4.2	11.3
Public Sector	28.0	26.0	37.0	9.0

Source: GIZ / IS 2009.

⁶ For the different national frameworks of knowledge, skills and competences – including different levels, see: e.g. Winterton, J.; Delamare-Le Deist, F.; Stringfellow, E.: *Typology of knowledge, skills and competences: clarification of the concept and prototype. Research report elaborated on behalf of Cedefop/Thessaloniki*. Toulouse 2005, p. 43 ff.

⁷ For MENA-countries see: El-Haichour, H.: *Education Reform in MENA Countries, unpublished background paper*.

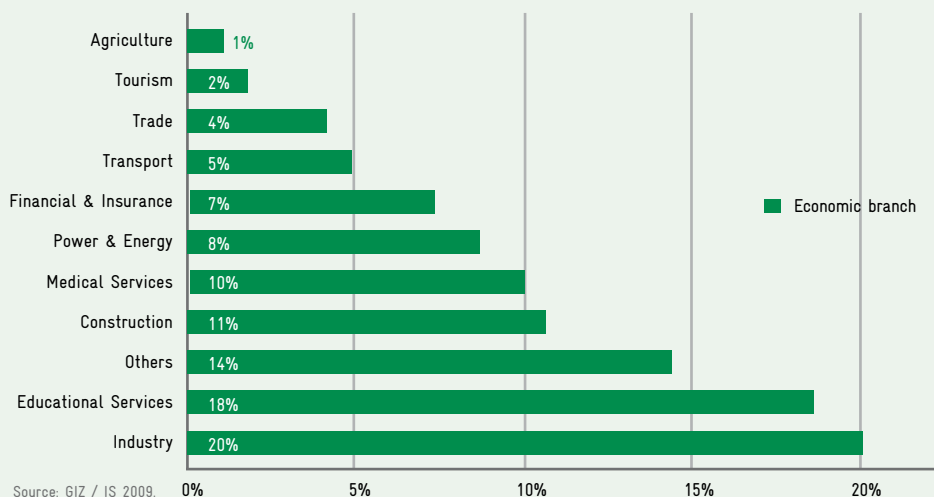
Main reasons for this regional coverage were (i) Size, growth and density of the population, (ii) size and growth of regional GDP and GDP per capita, (iii) concentration of industries and services, (iv) concentration of public services and state companies (v) degree of industrialisation, existence of economic clusters and innovation capacity⁸ and (v) ease of obtaining information (access to schools, companies etc.). The four chosen Shabiyas cover Libya's economically advanced growth poles.

To obtain representative and non-biased results, the graduates of the sample were selected according to (i) schools – basic, secondary and intermediate vocational centres and (ii) gender (96 male and 78 female). The slight dominance of the male graduates is based on the fact that some male-dominated workplaces in economic sectors like industry, manufacturing or construction, were involved in the study. The majority of nearly 90 % of the 174 respondents is younger than 34 (age group 19 - 33). They were born between 1976 and 1990. The mean age is 28-48 years.

The majority of private entrepreneurs and general managers who participated in the study are Libyan nationals (circa two-thirds), one third are Non-Libyans, coming from Austria, Brazil, France, Germany, Italy, Korea, Malta, the Netherlands, Oman, Sweden, Turkey and the USA. The firms of the private sector were selected according to three different employment size categories and to get fairly representative assessments from the business community, the companies selected come from 11 different economic sectors (see Figure 3).

The respondents selection of the public sector was primarily focussed on public health⁹ and education¹⁰ institutions and state companies (oil & energy, telecommunication and transport, construction, banking and insurance businesses), as these three sectors comprise more than 80 % of all employees working in the public sector. The majority, 75 (public: health 8, education 25, companies 42) out of 93, of the public GM and HRM come from these sectors.

Figure 3: Economic Branch of the Respondents



8 Porter, M.: *National Economic Strategy*, Tripoli 2006 and UNDP: *Arab Human Development Report 2002*. New York 2002.

9 includes clinics, government hospitals, pharmaceutical and medical companies with nurses, medical doctors, administrative staff, researchers and production workforce.

10 kindergarten, basic and secondary schools, intermediate and higher vocational centres up to universities and post-tertiary institutions with teachers, trainers, lecturers and administrative staff, civil servants of the relevant ministries at a national and regional level.

Methodology

The study proceeds from three methodological assumptions.

- (1) It is based on a most-different-systems-approach: A combination or 'mix' of instruments (questionnaires, expert interviews, workshops, round-table-discussions, on-site visits) which come from very different angles to the same findings and conclusions is a – limited – guarantee, that our findings are 'objective' and not biased.
- (2) It is based on an interdisciplinary-approach: The combination – or in the best case the integration – of different scientific disciplines, pedagogy, psychology, economics, sociology, political science can lead to deeper insights and better founded conclusions.
- (3) It is based on a participatory-approach, integrating stakeholders and clients from the education system (graduates, teachers headmasters, parents), from the business community (Libyan and foreign entrepreneurs, managers, human resource personnel) and from the public sector (managers of state companies, university professors, doctors at hospitals). This bottom-up approach is a certain guarantee, that relevant interests and voices have been included, and that the knowledge and experiences of important parts of the Libyan people are represented in the findings, conclusions and recommendations. Although time-consuming and not without conflicts – the comparative advantage of this involvement of different stakeholders is that it increases acceptance, legitimacy and the probability of the implementation of recommendations.

The collection of information and data was carried out between March and October 2009, using different sources (i) different questionnaires for graduates (self-assessment), public sector GMs, public sector HRMs, private sector GMs and private sector HRMs, (ii) in-depth interviews with graduates, teachers and headmasters (48), entrepreneurs, GMs and HRMs from the private (66) and public sector (75), (iii) workshops with graduates (5) and managers from the private sector (5) and (iv) on-site-visits in several educational institutions and in public (52) and private (71) companies and institutions. In addition to the above mentioned instruments (inter-) national statistical data and background reports were used for the evaluation of the public and private sector, as well as 54 company-reports for the private sector.

The implementation of the study was affected by a number of constraints:

- Lack of information and reliable statistical data on the education system, the labour market and the economy.
- Access to available information and actual statistical data was difficult or even impossible. Government officials are very reluctant to release information.
- During the field work (between March and October 2009) far-reaching institutional and administrative changes combined with a reshuffle of Civil Service personnel in key positions took place. The Authority for Manpower and Vocational Training was established.
- Some difficulties in the application of the research instruments influenced the findings and conclusions; for example: Although the survey was anonymous some interviewees refused to fill out the questionnaires.

3. The Development of the Education System: More Quantity than Quality

The Education System and its Environment

The most important objectives of the Libyan education system are to contribute to the cultural, economic and social development of Libyan society, and to rapidly raising standards of human development in the society by improving the skills and abilities of Libyans.¹¹

At the beginning some fundamental truths should be borne in mind:

- (1) Education – in the extended meaning of the word – starts in families, not in schools. A famous German scientist once argued: “Schools are weaker than their societal environment” (Erich Peisert), referring to the decisive role of parents, peer groups, mass media like TV and Internet for the socialisation and education of young people. If parents do not take an interest in high-class education for their children it will be very difficult for ‘the’ school to compensate for the negative influences of parents, family members, peer groups and the media.
- (2) Education systems are historically derived systems, which do have a long history. They are related to the “cultural capital” (P. Bourdieu) of peoples and produce their own ‘learning cultures’, attitudes and behaviour. Consequently, the reform or even transformation of education systems is a long-lasting process, which has to be initiated, led and implemented by the Libyan ‘stakeholders’. This process is on-going and open-ended and sometimes does produce unintended effects and contradictory results.

- (3) Applying a systems-approach¹², the education system can be analysed as a subsystem of a complex and dynamic society, which has close exchange relations with other societal subsystems.

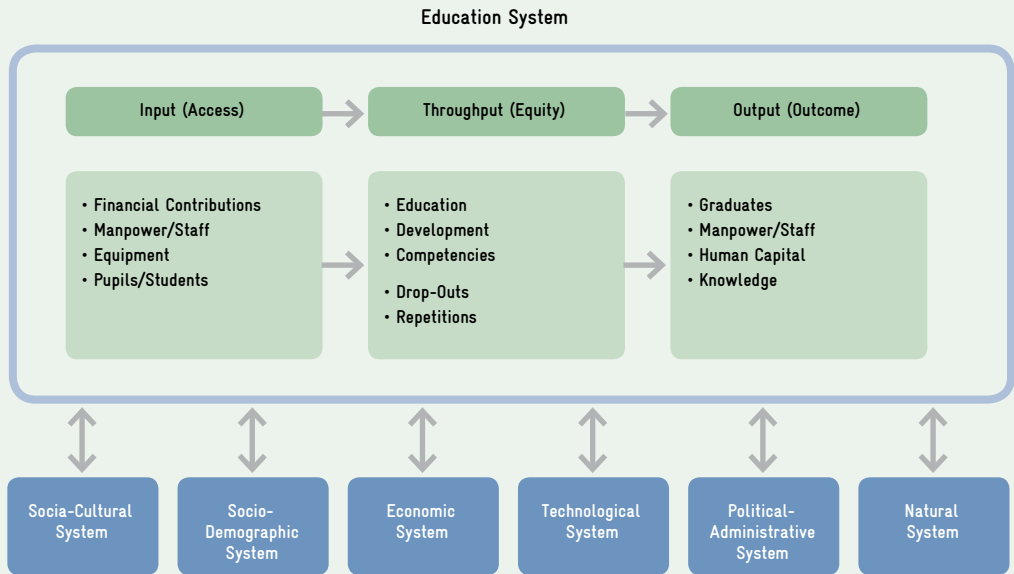
According to the respondents of our study these values and attitudes have crucial consequences for the labour market: (i) graduates seem to prefer working in the public sector with lower working hours, secure work places, clean and prestigious office jobs, and fringe benefits (health care for families etc.). (ii) They are less interested in manual ‘blue collar’ jobs with continuous hard and concentrated work in the private manufacturing sector. (iii) Job-hopping is the rule, not the exception, (iv) the mental setting of Libyans who have grown up with the slogan: “not employees, but partners” is not conducive to taking employment and accepting orders from the employer – this being the assessment of the majority of the respondents. The chase for certificates produces a specific learning culture - teacher’s centred learning, memorizing, learning-by-heart, frontal-teaching. Group work, creative thinking, and proactive learning are rare.¹³

¹¹ *The Great Socialist People's Libyan Arab Jamahiriya. The General Peoples' Committee of Education: The Development of Education. National Report of Libya, presented to the UNESCO International Conference on Education, Geneva November 2008, p. 2ff.*

¹² See Talcott Parsons, Niklas Luhmann etc.

¹³ See: El-Haichour, H.: *Education Reform in MENA Countries, unpublished background paper.*

Figure 4: Education as an Input-Output-System



Source: Braun, G.; GIZ / IS 2009.

The Education System as an Input-Output System

From a systems perspective the education system can be analysed as an input-output system. On the input-side the education system gets (i) financial contributions from the government and private budgets, (ii) manpower - teachers/headmasters/administrators - from the labour market, (iii) equipment - laboratories, computers, teaching aides - from the markets of goods and services and (iv) pupils/students from the socio-demographic system. These are the main inputs of the education system. As throughput the system educates and develops students to a higher stage of competencies/skills and expertise, and as output the system produces manpower for the private and public labour market and self-employed entrepreneurs, e.g. for the economic system.

The 'ideal' situation is of course, that the output of the education system directly matches the needs/demand of the labour market in quantity, quality, educational level, sector, time and regional coverage. This is worldwide the exception, not the rule. Normally we notice (a) an 'underproduction' of manpower in quantity and quality - so that societies have to rely on the import of foreign workers or (b) an 'overproduction' of human capital - so that graduates do not find an adequate job. In Libya we register the paradoxical situation of a co-existence of 'underproduction' (need for qualified manpower) and 'overproduction' (unemployment of educated graduates) at the same time (for details see chapter 4).

History and Structure of the Education System

The education and training system in Libya is free for everyone from elementary school right up to university and post-graduate studies. It is based on a compulsory basic education phase of nine years (grade 1 – 9), which consists of six years primary school and three years intermediate school. It is followed by two secondary education options:

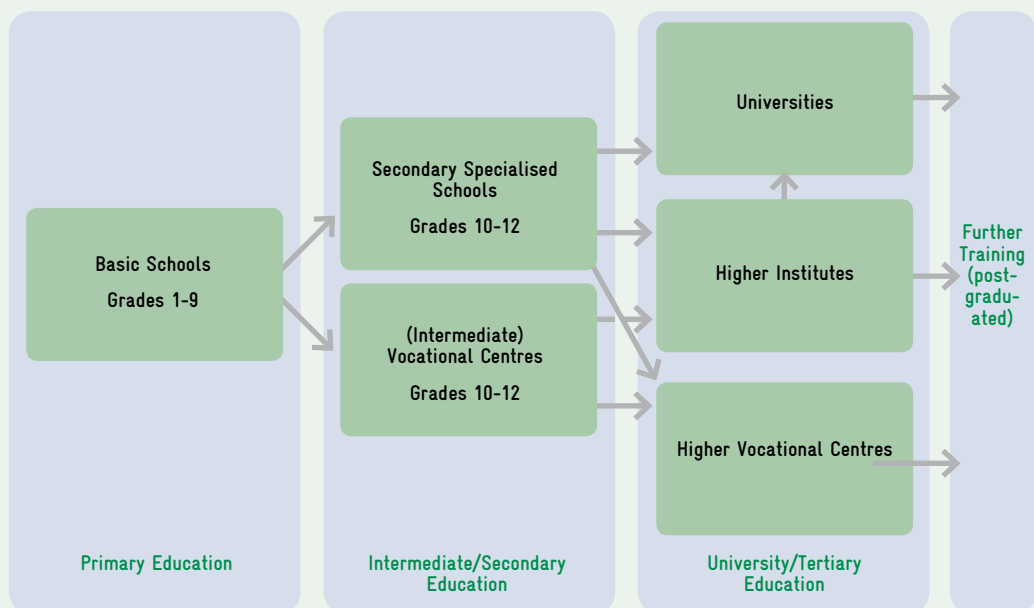
- Specialised secondary schools (three years), considered mainly as preparation for entering a university or higher education institutions/ higher vocational training centres. The specialisations (so-called streams) cover life science, engineering, economics, basic science, social science and languages.

- Intermediate vocational (training) centres (IVCs) of three years of training. The graduates of IVCs are skilled workers and can enter the labour market or the higher vocational centres.

Tertiary education in Libya is provided by universities (both general and specialised) and higher vocational centres (HVCs).

Inputs to the labour market come (i) from drop-out students during all educational phases and (ii) from graduates of basic, secondary education and tertiary education.

Figure 5: Simplified Overview of the Libyan Education System



Source: French, M.; GIZ / IS 2009.

A Brief History of the Education System

Since its inception, the Government in Libya has placed great importance on education, initially expanding ongoing programmes with progress being made throughout the 1970s. However, by the 1980s there remained a shortage of qualified teachers. Furthermore, there was low enrolment in vocational and technical training. These problems are only now beginning to be redressed.

Since the early 1980s the New Educational Structure has guided policy in Libya. With an emphasis on early specialisation, the structure permits students performing under expectations to enrol in vocational or technical programmes to develop skills that are more practical for them and the labour market. The reforms have helped encourage a rapid expansion in the overall number of vocational and technical centres. However, there has been lower than expected growth in enrolment in vocational programmes as of late. This is usually associated with the higher degree of importance placed by society on traditional theoretical and academic study.

The experimental status of the reforms – with subjects, methods and curricula sometimes abolished only to be reintroduced later – may have played a part in undermining standards. The most dramatic instance was the removal of English language studies from the curriculum in the 1980s. This has now been reinstalled, but its removal left a generation of Libyans without this vital international communication skill.

Source: The Report: Libya 2008. London 2008, p. 174.

Table 3: Number of Schools, Classrooms, Students and Teachers at Basic and Secondary Education for the Academic Year 2007/2008

	Educational Stage	Number of Schools	Number of Classrooms	Number of Students	Number of Teachers
First	Basic Education	3397	40743	939799	119313
Second	Secondary Education	1033	10940	226000	39847
Third	Joint	72	1228	30697	3764
	Total	4502	52911	1196496	162924

Source: The Great Socialist People's Libyan Arab Jamahiriya: The General Peoples' Committee of Education: The Development of Education. National Report of Libya. Geneva 2008, p. 13.

Performance of the Education System

A comparison of selected process and performance indicators of the Libyan education system with other MENA-countries arrives at the following findings:

On the input side (access):

- Despite its high-ranking in GDP per capita under MENA-countries Libya's public expenditure on education (an important input of the education system) is approximately only 4 % of GDP, which is substantially under the average of MENA-countries (6.4 % in 2003).¹⁴
- Public expenditure on education as a percent of Government spending is 25.8 % (2008).¹⁵ The MENA-average is 19.5 % in 2003¹⁶ Libya ranks here substantially above the MENA average.
- The number of teachers per 100,000 students is well above MENA average. The total number of teachers in 2007 was 337,473 with a further 110,921 so-called reserve teachers. "However, there are not only reports of widespread teacher absenteeism, but the NECP has stated that up to one third of teachers registered as active, may be inactive."¹⁷
- The teachers: students – ratio is at all education levels far below MENA-average.¹⁸ Official figures on numbers of teachers per capita show Libya has many more teachers at both primary and secondary level compared to benchmark.¹⁹ In 2007 the pupil-teacher ratio was 1 to 3.2 or 1 to 2.4 if reserve teachers are included UNESCO statistics put the pupil-teacher ratio much higher at 4.8 in 2006.²⁰
- Besides far-spread absenteeism of teachers' low qualifications seem to be a big problem.²¹ First, as teachers are products of the system themselves, their own education is deficient. Second, the majority of basic school teachers in Libya do not have a university standard qualification. Third, quality and quantity of the continuous education of teachers are questionable, although there is a remarkable improvement.²² Fourth, relatively low salaries compound these problems as new graduates are not attracted into teaching, and existing teachers are not motivated to upgrade their skills and competencies to match changing requirements.
- The school curricula are now being modernised. (e.g. Specialised Secondary Schools, introduction of Singapore curricula/English and IT-lessons) after a period in which isolation and policy changes caused it to fall behind international developments in many fields of knowledge.²³

14 See: World Bank: *The Road Not Travelled*. Washington D.C. 2007, table A.6, p. 312 – where the latest figure is only 2,7 % for Libya in 2000.

15 See: World Bank: *Education At a Glance: Libya*, Washington D.C. 2009.

16 World Bank: *The Road Not Travelled*. Washington D.C. 2007, table A.7, p. 313.

17 THE REPORT: *Libya 2008*, London 2008, p.176 f.

18 See: World Bank: *The Road Not Travelled*. Washington D.C. 2007, Table A.1-A.3. pp. 308 ff. Unfortunately the Libyan figures are outdated, only reaching to 1990.

19 See also: *National Economic Development Report 2001*, p. 124.

20 THE REPORT: *Libya 2008*, London 2008, p. 176 f.

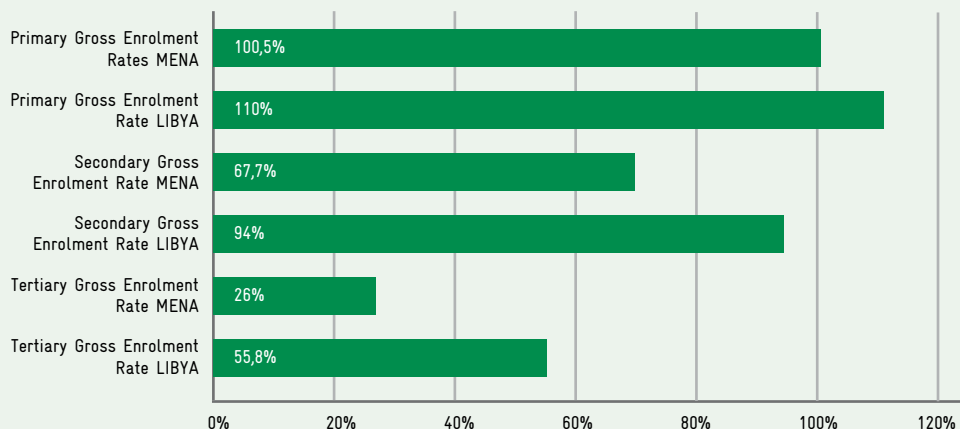
21 An international comparison with other MENA countries is not possible because of lack of data and no TIMSS or PISA studies for teachers.

22 For more details see: *The Great Socialist People's Libyan Arab Jamahiriya: The General Peoples' Committee of Education: The Development of Education. National Report of Libya*. Geneva 2008, Table (4), p. 15.

23 For details see: *The Great Socialist People's Libyan Arab Jamahiriya: The General Peoples' Committee of Education: The Development of Education. National Report of Libya*. Geneva 2008, pp. 8 ff.

- English and other foreign languages have been reinstated in the curricula, with English now being taught from Grade 3. The previous removal of English has unfortunately left a generation of Libyans without this essential international communication competency for doing business and using modern information systems. Fortunately there is also an increased emphasis on information technology, which is taught to students from Grade 5 onwards.
- Unfortunately, these laudable curricula changes have proven difficult to implement because of a shortage of teachers qualified to teach these disciplines. There seem to be few IT-qualified teachers at the intermediate school level, and English teaching, once reputedly the best of all MENA-countries, still suffers from a lack of capable teachers (who often prefer to work in the private sector).
- The Primary Gross Enrolment Rates (GER) are 110 % (2008), high above MENA-average (100.5). Secondary GERs are 94 % (2008) the highest of all countries in the region and worldwide (MENA-average is 68.7 %,) and the same is true for Tertiary GERs with 55.8 % (2008), compared with the MENA-average of 26.0 %.²⁴

Figure 6: Primary, Secondary and Tertiary Gross Enrolment Rates - Libya vs. MENA (Percentages, 2008)



Source: World Bank: Education at a Glance: Libya, Washington D.C. 2009.

²⁴ See World Bank: *Education at a Glance: Libya*, Washington D.C. 2009 and World Bank: *The Road Not Travelled*, Washington D.C. 2007, Tables B.1-B.3, pp. 314 ff.

On the throughput side (equity):

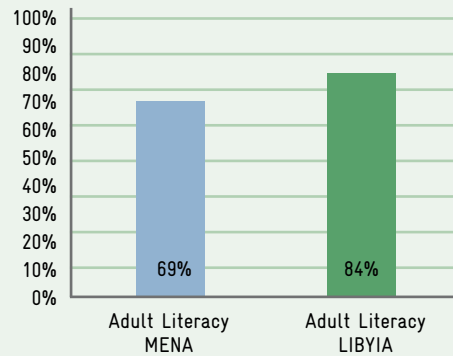
- There is some evidence, that the drop-out-rate of Libyan students at all educational levels – basic, secondary and tertiary – are above MENA-average. In primary education the drop-out-rate in Libya is 37.9 % (2008).²⁵
- The same seems to be true for the repetition-rate of Libyan students at all levels.²⁶ Exact figures are unavailable – and there seems to be no systematic pedagogical research in Libya analysing the main reasons and remedies for these high repetition and drop-out-rates.
- There is also some evidence, that teaching time is too limited. With over 5 months of holidays, and the encroachment of non-educational activities into teaching time, students simply do not spend enough time in the classroom – at least compared with competing neighbouring MENA-countries.
- Furthermore, Libyan school facilities and teaching methods are not regularly benchmarked against those of other countries, therefore international comparisons are impossible.

On the output side (outcome):

Despite these ‘mixed’-findings on the input- and on the throughput side, one of the key success stories of the Libyan education system has been the improvement in education of unfortunates, but only in quantitative terms.

- Reported adult literacy levels are among the highest in the region at 84 % (2008) compared with the MENA-average of 68.7 %.²⁷

Figure 7: Adult Literacy - Libya vs. MENA (Percentages, 2008)



Source: World Bank: Education at a Glance: Libya, Washington D.C. 2009.

- The Female literacy and the Gender Parity Indices of Primary (Libya 0.95 : 0.94 MENA-average), Secondary (1.06 : 0.96) and Tertiary GERs are considerably better than even many MENA peers.²⁸

Unfortunately there is a significant difference in the performance of the education system between quantity and quality. According to the Global Competitiveness Report 2010 – 2011 Libya performs poorly in terms of the overall quality of the educational system, ranking 128 (primary education) and 138 (higher education and training) out of 139 countries (see Table 4).

Even lower than the ranking of the overall education system (121) are the quality of management schools (137), internet access in schools (129); and the extent of staff training and university-industry research collaboration (131), the extent of staff training only ranking slightly better (110).

²⁵ See: World Bank: *Education at a Glance: Libya*, Washington D.C. 2009, for MENA-countries see: World Bank: *The Road Not Travelled*. Washington D.C. 2007, Table D.5 and D.6, pp. 330 ff.

²⁶ See: World Bank: *The Road Not Travelled*. Washington D.C. 2007, Table D.3 and D.4., pp. 328ff.

²⁷ World Bank: *Education At a Glance: Libya*, Washington D.C.2009 and World Bank: *The Road Not Travelled*. Washington D.C. 2007, Table E.3, p. 337.

²⁸ See World Bank: *Education at a Glance: Libya*, Washington D.C. 2009 and World Bank: *The Road Not Travelled*. Washington D.C. 2007, Tables C.1-C.3, pp. 324 ff.

Table 4: Ranking of Education and Skill Base of Libya (out of 143 countries)

Indicator	Rank
Secondary enrolment	48
Tertiary enrolment	37
Quality of primary education	128
Quality of the higher education and training	138
Quality of math and science education	113
Quality of management schools	137
Internet access in schools	129
Local availability of research and training services	134
Extent of staff training	110
Quality of scientific research institutions	125
University-industry research collaboration	131

Source: World Economic Forum: The Global Competitiveness Report 2010–2011, Geneva 2010, p. 217.

Higher officials and representatives of the business community complain that the education system suffers from poor quality curricula, low morale of teachers, lack of modern equipment and from structural problems such as the lack of objective quality standards and inefficient allocation of public resources.

Vocational Training: From Second Best Option to Equal Value

As vocational training usually is more oriented to the requirements of the labour market – and has been given priority by the Libyan government, a specific vocational training study – as part of the Labour Market Study – focused on vocational and technical training.²⁹

Structure of Vocational Training

At the secondary educational level **intermediate vocational centres** (IVCs) offer training programmes for pupils with low performance results from basic education (see figure 5, p. 76). Estimates suggest that to be up to 20,000 graduates from basic education to intermediate vocational centres.³⁰

At the tertiary level the **higher vocational centres** (HVCs) mainly enrol graduates from specialised secondary school whose grades are below the level which are required by universities. Additionally graduates from intermediate vocational centres join HVCs. Student figures concerning the HVCs suggest the enrolment of 40,000 students approximately in total. Since many centres still run 2.5 year programmes a yearly intake of 20,000 students might be appropriate.³¹

²⁹ Elyagubi, M.: *Report on Intermediate and Higher Vocational Training Centres, Tripoli 2009.*

³⁰ GIZ/International Services: *Study on the Transfer of Libya's higher vocational professions centres to regional centres for professional competencies, Tripoli 2009, p. 37f. (Draft Report conducted on behalf of the National Economic Development Board of Libya).*

³¹ GIZ/International Services: *Study on the Transfer of Libya's higher vocational professions centres to regional centres for professional competencies, Tripoli 2009, p. 38 (Draft Report).*

Sample of the vocational study

The population of the vocational study consisted of 88 directors of centres and human resource managers, working in 43 intermediate and 21 higher vocational centres. The regional distribution was Shabiya Tripoli 47 %, Misurata 28 %, Benghazi 14 % and Sabha 11 %.

Table 5: Study Courses of Vocational Centres

Study Courses	Percentage
Mechanics	26.6
Electronics and Power	14.1
Constructions and Surveying	9.4
Administration, Finance and Computer	26.6
Agriculture, Veterinary and Sea Fishing	4.7
Dressing and Knitting	3.1
Tourism and Hostelry	7.8
Comprehensive	7.8
Total	100.0

Source: Elyagubi, M.: Report on Intermediate and Higher Vocational Training Centres. Tripoli 2009, p. 5.

One interesting finding is that around 66 % of the study courses offered at the vocational centres (see Table 5) prepare pupils/students for a job career in the manufacturing/industrial sector (mechanics, electronics/power, construction/surveying, agriculture/veterinary/marine fishing, dressing/knitting) and about 33 % for working in the service sector (administration/ finance/ computer, tourism/hostelry). Due to a weak database regarding numbers of applicants, intakes, drop-outs, graduates and the whereabouts of graduates in the labour market it is impossible to assess whether this distribution of study courses matches with the

requirements of the labour market. It appears – when analysing the needs of the most dynamic sectors predicted by managers (see chapter 6 + 7) as if this distribution corresponds with the quantitative requirements of the Libyan job market, except for the relatively low percentage of administration, finance and computer courses, where the business community predicts a fast growing demand.

Gender distribution: 42 % of the students were females, mainly studying in the service sector study courses (administration, finance & computer + tourism & hostelry) and 58 % were males, predominantly studying in industrial sector courses like mechanics/ electronics & power/ construction & surveying) – typical gender distribution of educational preferences and job orientations.³²

With respect to the **teachers/trainers/instructors** formal qualifications + specialisations in the intermediate vocational centres of the Tripoli Shabiya more than 50 % of the trainers have a university degree, if specialised then in theoretical academic teaching – and about 36 % of those specialised in practical training are university certificate holders. This is – from a formal point of view – a relatively high percentage of trainers/instructors with university degrees. Whether these formal educational qualifications and specialisations are necessary and sufficient, they cannot be assessed without thorough curricula, performance and classroom supervision – on the basis of elaborated performance indicators.

Table 6: Staff Member Specialisation

Formal Qualification	Theory	Practical	Total
PhD	110 = 6.5%	1 = 0.0%	111
Master	344 = 20.3%	138 = 6.0%	482
Bachelors (BS)	402 = 24.8%	695 = 30.2%	1097
Bachelor (BA)	152 = 9.0%	20 = 0.9%	172
High Diploma	591 = 34.9%	857 = 37.3%	1448
Intermediate Diploma	75 = 4.4%	587 = 25.5%	662
Total	1692	2298	3990

Source: Elyagubi, M.: Report on Intermediate and Higher Vocational Training Centres. Tripoli 2009, p. 7.

We are not entitled to formulate representative conclusions and recommendations for all vocational training centres in Libya. But – having a total of 64 vocational centres in four Shabiyas in our sample – and having interviewed 88 directors and human resource managers we claim that the following conclusions and recommendations are more than pure guesstimates.

Vocational Training Findings

- Parents prefer to send their children to universities rather than to vocational centres. Consequently universities are over-crowded, while vocational centres are lacking in highly qualified applicants.³³
- Weakness in the standard of the students finishing the basic education who are directed to join intermediate vocational centres has led to a decline in their vocational achievements.
- Holders of intermediate certificates – especially in handicraft and technical professions are looked down upon socially, compared to administrative jobs.

- Lack of foreign languages, particularly English and information technology of the graduates of intermediate vocational centres.
- Businessmen in Libya complain that general and vocational education graduates in all disciplines usually need extensive retraining to make them productive (for details see chapter 6 +7).
- Low salaries have led to little attractiveness in becoming a vocational teacher. Teachers are not highly motivated to upgrade their knowledge and skills to master new requirements.
- Teachers often are insufficiently qualified to execute the training programmes and are not open to changes of their teaching style..³⁴
- Libya's global isolation between 1992 and 2003 (international sanctions) hampered the continuous education of teachers, trainers and instructors. Libyan teachers did not have access to global best-practice developments in pedagogical methods.

³³ "The prevailing social culture in Libyan families is contributing to decline in the number of students joining vocational centres, compared to their joining of non-vocational secondary schools (...) this led to decline in the qualitative and quantitative standards of the graduates from vocational centres." Elyagubi, M.: Report on Intermediate and Higher Vocational Training Centres, Tripoli 2009, p.6.

³⁴ GLZ/International Services: Study on the Transfer of Libya's higher vocational professions centres to regional centres for professional competencies, Tripoli 2009, pp. 37 f. (Draft Report conducted on behalf of the National Economic Development Board of Libya).

- Lack of training courses for trainers, locally and abroad.
- Lack of agreements with industry and service institutions that offer opportunities for field training and provide job opportunities.
- The frequent changes in responsibilities for the general education and for vocational education have hampered a continuous and constant development of the education system..³⁵
- There is a severe absence of accurate, standardised, reliable and objective information on the outcome and quality of the education system.

Challenges Impacting the Quality of the Education System

A number of problems are hampering Libya's ability to deliver the quality of education that the country requires to meet the challenges of globalisation.

The most serious negative factor seems to be the absence of a body with overall responsibility for developing a general vision for education in a knowledge society: (i) formulating a vision for education, (ii) defining objectives of education policy, (iii) setting standards, (iv) managing and coordinating the different stakeholders and levels of education provision and (v) implementing an evaluation and quality assurance system..³⁶ This is one of the main reasons for the large mismatch in skills. There exist no institutional mechanisms for external stakeholders to give inputs into education planning and management. A continuously improving education system needs to be open to the views of those within the system – administrators, headmasters, teachers, and students. Parents also have no opportunity to contribute to the

education debate or influence inputs to the system. In addition, the education system needs the views of those who receive its products: the business community and the wider economy. Industry has no focal point for coordination and collaboration. Finally, the absence of reliable data on education expenditures/number of teachers/school equipment etc. allows for continuing inefficiencies in resource allocation.

Summing up

- (1) With regard to quantity indicators (enrolment/transition rates) Libya ranks among the top one-third of MENA-countries surveyed, with regard to quality (maths/science etc.) Libya ranks among the bottom one-third of countries surveyed.
- (2) Despite much progress in quantitative terms over the last thirty years, and good quantity outcomes, the perception of 'stakeholders', including the business community is that the Libyan education system does not fulfil the goals it has set itself, including providing the skills and competencies that are required to drive the economy forward, findings which are supported by our research study (see chapters 5-7).
- (3) Poor quality inputs and a number of severe structural challenges are negatively affecting the outcomes of the education system.
- (4) Future education reforms must travel a new road. The main features of the new road involve greater emphasis on incentives and public accountability, performance orientation and quality assurance systems besides improving the education process itself.

³⁵ GIZ/International Services: *Study on the Transfer of Libya's higher vocational professions centres to regional centres for professional competencies*, Tripoli 2009, pp. 37 f. (Draft Report conducted on behalf of the National Economic Development Board of Libya).

³⁶ For the following see: Porter, M.E.: *National Economic Strategy*. Tripoli 2006, p. 122.

4. Trends and Requirements of the Labour Market: Between Over-Employment and Unemployment

New Requirements of the Labour Market

Individuals, families and governments invest in education expecting - besides acceptance, social status and reputation - to obtain higher economic returns. Individuals make schooling decisions with an eye on the types of employment choices and earnings they will gain over their working lifetime. Governments expect a better educated workforce to contribute substantially to higher rates of economic growth and improved productivity.³⁷ However, these expectations may go unfulfilled if the labour markets do not fully absorb the educated workforce and allocate them to their most productive uses.

The state driven Libyan economic policies started in the 1970s and lasted for more than three decades. Libya's historical model of development was based on state-led development and central economic planning. While this model brought initial gains (poverty reduction, access to education) it did so at a significant cost: (i) A centralised and hierarchical government emerged. (ii) The Libyan economy became heavily protected and inward looking with substantial implications for investment and production, further affecting job creation and labour demand. (iii) Heavy import protection and regulatory environments discouraged private investment, creating significant obstacles to the integration of Libya into global markets. (iv) An increase in the oil revenues allowed the government to redistribute resources and purchase legitimacy through public employment and broad access to cheap public services - education, health, transport and housing. (v) Labour markets

became highly regulated. (vi) The Ministries and state companies were subjected to labour management relations to tighten regulation, increasingly intervening in wages, working conditions and procedures for hiring and firing. (vii) With the nationalisation of assets and direct state control of production the labour market changed dramatically. The Government became the dominant employer in Libya, and provided a particularly important source of employment for females. (viii) Driven by substantial increases in educational levels and improvements in health for women, combined with a quantitative reduction in fertility female labour force participation rates increased significantly.³⁸ (ix) Under state ownership, workforce regulations expanded to include job security guarantees, social security programmes, relatively high public sector wages with generous nonwage benefits (such as family allowances), and sharp restrictions on firing. (x) The government became the most desired employer because of expectations of higher pay and more comfortable working conditions - especially for better educated graduates.

In short: The public sector's dominance of employment grew to unprecedented levels.

³⁷ See: World Bank: *The Road not Travelled*, Washington D.C. 2007, pp. 211 ff.

³⁸ World Bank: *Jobs, Growth, and Governance in the Middle East and North Africa. Unlocking the Potential for Prosperity*, Washington D.C. 2003, p. 15.

After the freezing of UN sanctions in 1999, the government started implementing measures of economic reform (i) to open its economy to international markets and (ii) to move gradually from a centrally planned towards a market economy (privatisation of state companies³⁹ and establishment of private enterprises). With private businesses 'entering' the labour market competition between the private and public sector for qualified manpower increased. The private business community, applied completely different criteria when recruiting, selecting and promoting employees. As private enterprises have to apply a thorough cost-benefit-analysis on their manpower, not formal certificates (as in the public sector), but competencies and work attitudes are decisive for success in competitive markets.

Development of the Formal Labour Market

a) Macro-economic and Sector Development

Estimates indicate that out of the 1.8 million Libyan work force (2007) the government employs up to 70 % (840,000) of all salaried Libyans.⁴⁰ During the period 1995 – 2003 the number of economically active Libyans increased from 1,025,083 to 1,640,609 people, an annual growth rate of 6.1 % at the aggregate level (see Table 7).⁴¹ This is by international comparison a high growth rate, due to the fact of (i) an increase in government spending for major infrastructure projects, (ii) an increase of (inter)national trade after the lifting of sanctions, (iii) the expansion of the private SME-sector, (iv) an increase in foreign direct investment mainly in the oil, the construction and the banking sector.

Problems of Labour Market Statistics⁴²

Lack of information and reliable data on the labour market very much limited our analysis. These problems are being underlined in all reports elaborated by Libyan or international institutions. Therefore we are only able to speak about "trends". Some problems are:

- (1) The exact number of non-Libyan workers is unknown; many of them are working illegally.
- (2) The number of people working in the informal sector is unknown.
- (3) The number of employees in the formal labour market differs from 1,520,402 to 1,876,206 (in 2006), depending (i) whether registered non-Libyans, (ii) self-employed, (iii) job seekers for the first time are included or not.

³⁹ "The total value of privatisation is thus far 1.5 bn. US-Dollar. Some 86 production and service companies have been privatised, 57 have been transferred to the public companies liquidation fund; 14 are undergoing the evaluation process; and 87 are in the preparation process". The report: Libya 2008, London 2008, p. 31.

⁴⁰ Economist Intelligence Unit: Libya Country Profile 2008. London 2008, p. 21.

⁴¹ For the following see Anonymous Author: Developments of the labour market in the Libyan economy, Tripoli 2008.

⁴² See: General Authority for Information and Documentation: Statistical Yearbook 2006, Tripoli 2008, p. 133/241.

**Table 7: Development of Formal Employment of the Libyan Population (15 Years and Older)
According to Economic Sectors 1995 – 2003**

Sections of Economic Activity	1995		2003		% Growth Rate
	Number	% of the Total	Number	% of the Total	
Agriculture, Forestry and Fishing	111,915	10.9	65,073	4.0	-6.6
Mining and Quarrying	19,285	1.9	21,369	1.3	1.3
Manufacturing	74,808	7.3	95,820	5.8	3.1
Electricity, Gas and Water	30,123	2.9	44,565	2.7	5.0
Building and Construction	16,949	1.7	26,644	1.6	5.8
Wholesale and Retail Trade	82,000	8.0	152,162	9.3	8.0
Transport, Storage and Transportation	62,215	6.1	103,771	6.3	6.6
Banks and Financial Institutions	19,481	1.9	30,297	1.9	5.7
Public Services and Social and Cultural Services	496,326	48.4	924,934	50.3	6.6
Activities not Clear Classification	4147	0.4	-	-	-
Not Shown	340	0.0	74	0.0	-17.4
Looking for Work for the First Time	107,494	10.0	275,900	16.8	12.5
Total	1,025,083	100.0	1,640,609	100.0	6.1

Source: Anonymous Author: Developments of the labour market in the Libyan economy, Tripoli 2008 and National Authority for Information and Documentation, Statistical Pocketbook, 1999 (actual data is unavailable).

With respect to economic sectors in the period mentioned, the following developments seem to be most important:

- A significant decrease in employment in the agricultural/fishery sector in absolute and relative terms (from 10.9 % to 4 % of the active Libyan population). Libya remains reliant on imported food for about 80 % of its needs. Environmental constraints put a severe limit on Libya' agricultural potential. Libya is over 90 % desert.
- A decrease of employment in the manufacturing sector from 7.3 % to 5.8 % (but an increase in absolute numbers). Compared with other MENA-countries, the manufacturing sector of Libya is backward, both in its contribution to total employment, to value-added and to productivity.
- An increase of employment in the trade sector, both in absolute (82,000 to 152,162) and relative terms (from 8.0 % to 9.3 %). As this sector is dominated by private companies, the growth of employment is an indicator of the progress of the private sector and the re-integration of Libya into the global economy.
- A dramatic expansion of employment in the public sector. The number of Government employees, including public education, public health, general administration and state companies nearly doubled (from 496,326 to 924,934 civil servants). The public sector absorbed the majority of graduates and plays a decisive role in the Libyan labour market.

The development of the labour market from 2004 to 2007 is characterised by decreasing percentages of employment in all economic sectors – with the exception of the construction sector and mining and quarrying (= mainly oil and gas). In 2007 the oil sector only employed 43,000 or 2 % of the total Libyan workforce, while contributing an estimated 72 % to Libya's GDP; i.e. the oil sector is highly capital-intensive and has an extremely limited employment potential. The same refers to the other sectors, except the construction sector and the SME-sector (mainly in manufacturing and services). The public sector, including public education and health, absorbs up to 70 % (see Table 8

under "Service") of the formal workforce, but contributes only 9 % to Libya's GDP. This is an indication of a labour-intensive employment structure (especially in education and health), low productivity and over-staffing of the public sector.

b) Development of Female Employees

The contribution of economically active women in the labour market increased from 28,619 (1973) to 397,277 (2006) or by percentage from 7.0 % to 29.2 %. Annually the growth rate of female employees was by 8.6 % compared to 3.3 % for males which was more than double.

Table 8: Share of Employment of Economic Sectors 2004 – 2007 (in %)

Economic Sector	2004	2005	2006	2007
Agriculture, Forestry and Fishing	5.1	5.0	4.7	4.6
Mining and Quarrying	1.7	1.7	1.8	1.8
Manufacturing	7.5	7.6	7.4	7.1
Electricity, Gas and Water	2.9	2.9	2.8	2.8
Construction	8.1	8.4	9.6	9.6
Service	74.7	74.4	73.7	74.1

Source: Secretariat of Planning and General Authority for Information GPC.

Table 9: The Evolution of the Size of Libyans Employed by Gender (1973-2006)

Gender	1973	1984	1995	2003	2006
Male	379,714	571,306	732,677	1,013,526	1,123,125
Female	28,619	84,618	172,874	343,537	397,277
Total	408,333	655,924	905,551	1,357,063	1,520,402
The proportion of female workers to total %	7.0	12.9	19.1	25.3	29.2

Source: Anonymous Author: Developments of the labour market in the Libyan economy, Tripoli 2008; National Authority for Information and Documentation, Statistical Pocketbook, Tripoli 1999 and for 2006, General Authority for Information and Communication: Statistical Yearbook 2006, Tripoli 2008, p. 133.

Reasons for this spectacular increase of female employment might be:⁴³

- Change of the prevailing culture of the Libyan society about the work of women in the last 40 years. The majority of the Libyan society has accepted the idea of women's work and their entry into the labour market to increase the family income.
- Increase of women working in the public sector, especially in schools and hospitals.
- Increase of women working in private companies, especially in administration, banking and insurance.
- Increase of female university graduates who improved their job opportunities.
- Increase of female graduates from intermediate and higher vocational centres with better employment chances.

(1984) to 152,070 (2006), whereas the percentage of primary certificate holders declined from 18.8 % to 10.0 %.

Increase: In the category of employees who obtained the secondary or high school certificate the total number 'exploded' from 199,161 to 934,000, more than doubling the percentage from 30.3 % to 61.4 %. An even more spectacular development can be observed amongst employees holding a university certificate with an increase from 26,756 to 261,321, increasing their proportion of the total Libyan working population from 4.1 % to 17.2 % (annual growth rate about 12 %). This rise in the educational level amongst the Libyan working population may have the following reasons:

- Substitution of illiterates/primary graduates by

Table 10: Educational Status of Libyan Workforce – 1995 vs. 2006

Educational Status	1995		2006	
	Number	%	Number	%
Illiterate	174,238	26.6	98,837	6.5
Without Primary	132,292	20.2	73,304	4.8
Primary	123,477	18.8	152,070	10.0
Secondary	199,161	30.3	934,000	61.4
University	26,756	4.1	261,321	17.3
Total	655,924	100	1,520,402	100

Source: The General Authority for Information and Communications: Statistical Yearbook 2006, Tripoli 2008, p. 145.

c) Development According to Educational Level

During the last 25 years there has been a remarkable change in the educational level of the Libyan workforce. Decrease: The total number and the percentage of illiterate workers decreased from 174,238 (1984) to 98,837 (2006), the percentage declining from 26.6 % to 6.5 %. A parallel development can be observed in the category of workers without primary certificate from 132,292 (20.2 %) to 73,304 (4.8 %). Amongst primary education graduates the total number increased from 123,477

foreign migrant workers (from Chad, Niger, Sudan, and others).

- Deliberate employment policy of the public sector, which prefers graduates from secondary schools and universities.
- Displacement of employees with lower certificates by higher certificate holders.
- More demanding workplaces especially in the private Libyan business sector and in foreign companies.

⁴³ For the following see Anonymous Author: *Developments of the labour market in the Libyan economy*, Tripoli 2008, p. 12.

d) Development According to Occupational Status

The development of Libya to a knowledge-based economy is verified by the analysis of the occupational status of the Libyan workforce from 1984 to 2003 (actual data is unavailable).

The most important trends are:

- The techno-economic *upper and middle management 'class'* increased from 118,539 (1984) to 484,388 (2003), nearly doubling their percentage of the total active Libyan workforce from 18.1 % (1984) to 35.5 (2003). This means in total numbers a creation of nearly 350,000 additional jobs.
- The *lower middle management 'class'* (administrative staff) increased as well – but with a lower growth rate – from 85,185 (1984) to 234,545 (2003); e.g. in relative numbers from 13 % (1984) to 17.2 % (2003).
- In the *servants 'class'* of the service sector (hotels/ public services + sales men) two opposing trends can be watched: The salesmen class (workers buying and selling) increased their percentage significantly from nearly 3 % (1984) to nearly 9 % (2003), whereas the percentage of employees working in hotels and public services decreased from nearly 37 % (1984) to nearly 9 % (2003), which means a loss of 120,000 jobs.
- *The number of production workers doubled from 119,153 (1984) to 238,019 (2003), which means – because of the expansion of the total active Libyan workforce – a nearly constant percentage about 18 %; whereas the total number and the percentage of farm workers decreased.*

Table 10: Distribution and Growth of Libyan Employees According to Occupation 1984-2003

Occupation Sections	1984		1995		2003	
	Number	%	Number	%	Number	%
Technical, Scientific Professionals and Professionals Whom Working with Them	118,539	18.1	241,022	26.3	484,388	35.5
Workers and Managers of the Popular Committees, Offices	2,295	0.4	2,948	0.3	10,715	0.8
Clerks and Administrative Staff Monitors	85,185	13.0	146,147	15.9	234,545	17.2
Workers Buying and Selling	19,374	3.0	51,892	5.7	122,072	9.0
Hotel Services Employees Restaurants and Public Services	240,924	36.7	189,873	20.7	116,822	8.6
Workers in Agriculture and Animal Husbandry	70,443	10.7	101,026	11.0	56,992	4.2
Production Workers	119,153	18.2	180,468	19.7	238,019	17.4
Non Classified Workers	11	0.0	4,231	0.5	101,156	7.4
(Put) Unemployed Persons Who Had Worked Previously	-	-	(12,038)	-	(7,646)	-
Total	655,924		905,551		1,357,063	
% Annual Growth Rate (1984-2003)	3.9					

Source: Anonymous Author: Developments of the labour market in the Libyan economy, Tripoli 2008; National Authority for Information and Documentation, Statistical Pocketbook 1999.

Conclusions: The changing structure of the labour market according to the occupational status of the Libyan workforce verifies the following trends:

- (1) The significant increase of the upper- and middle techno-economic management class can be interpreted as the development of Libya into a knowledge-driven economy, absorbing substantial numbers of graduates from universities, especially in engineering and economics. In the long run this Libyan management class may displace – at least partially – the existing foreign management class.⁴⁴
- (2) The Libyan economy is – especially after the lifting of sanctions – opening towards (inter) national trade in global markets with an significant increase of employees working in the trade sector.
- (3) As the tourism sector and public services expanded, the decrease of Libyan employees can be explained by a displacement effect through foreign migrant workers, especially from Egypt and Tunisia – as for Libyans being in a ‘servants’ role still continues to be cultural problem.

e) Public Sector Employment

In state dominated sectors and companies there is significant *over-employment*.⁴⁵ Another key characteristic of Libya’s skewed formal employment in the public sector is the existence of ‘welfare’ *employment*. Libyan government officials estimate that at least one-third of the 200,000 primary school teachers and 30,000 nurses on government payrolls are inactive, but continue to receive monthly salaries. Generally it appears that the wealth created predominantly in the energy and construc-

tion sector is redistributed through extensive ‘welfare’ employment in the public sector, making it much less productive. Many Libyans, in addition to their regular jobs with government or state-owned enterprises that are being done in the morning (‘AM economy’), do have a second or third job as entrepreneurs or employees in the private sector in the afternoon (‘PM economy’). The ‘PM economy’ operates – in contrast to the state economy – more like a free-market with supply and demand-based pricing and wage mechanisms.

f) The Informal Sector of the Libyan Labour Market

The inability to create enough employment in the formal labour market has given rise to a significant expansion of informal sector jobs in Libya. The informal – or backyard – sector consists of both employment and production outside formal regulations, labour laws and taxes. The informal sector is defined by ease of entry, small scale activities, micro-enterprises with a high proportion of family workers, limited capital and equipment, labour-intensive technologies, low level of organization and cheap provision of goods and services.⁴⁶

While the possibility of an informal sector that is subsistence-oriented with low-skilled workers and low productivity is there, the informal sector also consists of dynamic, growth-oriented entrepreneurs who provide a large number of urban jobs across a wide range of industries, occupations and workplaces. Informal SMEs and microenterprises build markets, introduce innovations, expand trade and generate employment by facilitating labour-market flexibility, allowing entrepreneurs to tap into an adaptable workforce.⁴⁷

⁴⁴ If the existing study courses at the universities and/or the management academies are capable to develop the necessary leadership competencies. This could be the topic of an in-depth tracer study.

⁴⁵ Porter, M. E.: *National Economic Strategy*, Tripoli 2006, p. 38.

⁴⁶ For the following see: World Bank: *The Road not Travelled*, Washington D.C. 2007, pp. 237 ff.

⁴⁷ See Beneria, L.; Floro, M. S.: *Labour Market Informalisation and Social Policy: Distributional Links and the Case of House based Workers*, Poughkeepsie, New York 2004.

The size of the informal sector in Libya is – as in most regions and countries – uncertain but large. Informal employment is estimated at about 40 – 60 % of total employment. 1.6 million people are employed in Libya's *formal economy*. Though detailed or reliable statistics are unavailable for the *informal economy*, senior government officials estimate another 1.2-1.6 million people are informally employed, mainly in the agriculture, construction and retail trade sectors. Thus informal employment, representing a significant share of Libya's job opportunities is an important element of labour-market demand and outcomes.

The informal sector provides employment especially for drop-outs or graduates with basic education certificates only. Equally important, the increase in informalisation might have disproportionately affected workers with secondary or tertiary education reflecting the rising educational level of the total labour force.

Open and Disguised Unemployment

Growth in the private sector – especially in tourism, banking and insurance, and in technical services such as consultancy, data processing, information technology and communications – and in foreign investment (especially in oil and gas, construction and private health/education) is likely to create some new jobs in the formal labour market. However, given Libya's high population growth (2.5 % annually over the last 20 years) and the dependency of its economy on the capital-intensive oil sector, unemployment is probably to grow.⁴⁸

From an economic perspective, unemployment, especially of the educated labour force, is an outright waste of investment in education not actually contributing to productive activities, thereby lowering economic growth and the returns to education.

Table 12: Libya Basic Data 2000-2009

	2000	2005	2007	2008	2009
Population (million)	5.340	5.920	6.170	6.290	6.420
Population Growth Rate (%)	2.0	2.0	2.0	2.0	2.0
Life expectancy at birth (years)	72.5	73.6	74.1	74.3	74.5
Unemployment Rate (%)		16.3	12.0		
GDP (USD billion) current	38.2	44.0	71.6	88.9	60.2
GDP Annual Growth (%) constant prices	3.7	10.3	7.5	2.3	2.3
GDP per Capita (USD) current	7150	7434	11605	14114	9371
GDP per Capita (USD) ppp	10947	13653	15714	16336	16502

Source: Secretariat of Planning and General Authority for Information GPC, Tripoli.
Wirtschaftskammern Österreichs: Länderreport Libyen, Juni 2011
World Bank: Libya at a Glance, Washington D.C. 2011.

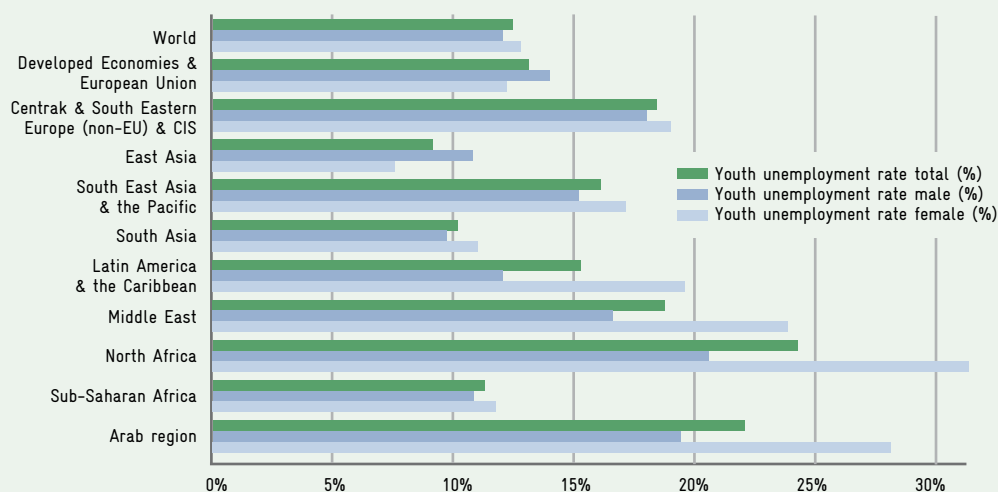
Official figures indicate, that the unemployment rate was 12 % in 2007 and decreased from 16.7 % in 2004 (see Table 12). Unofficial estimates indicate the contrary: Unemployment is estimated to be at least 30 % of the total population of working age,⁴⁹ being particularly high among the young – and it is increasing. Including disguised unemployment – people with nominal jobs but who work little if at all.

Exacerbating the loss of human capital would be if unemployment would have disproportionately impacted those with higher levels of education. Unfortunately there are no figures available for Libya with regard to the *educational level* of the unemployed, but there are indications that in MENA (see Figure 8) countries educated youth unemployment has been steadily increasing.⁵⁰ This might be true for Libya as well.⁵¹

Paradoxically, Libya imports a substantial number of foreign workers for both skilled jobs and manual labour as in some other oil-rich states. There are estimated to be up to 2 million *foreign workers* in Libya, many illegally. Highly qualified employees – working as managers, engineers, economists, high-tech-consultants mainly come from Western and Eastern Europe, the ‘middle class’ from India, Pakistan, Egypt, Jordan, Tunisia, and unskilled workers from Bangladesh, Nepal, Niger, Chad and Sudan.⁵²

The co-existence of growing unemployment of nationals and growing numbers of foreign workers is a specific feature of the Libyan labour market. Additionally the existence of a large pool of foreign labour can lead to tensions with the domestic population. It is obvious that there is a growing mismatch between the graduates of the education system and the demand for qualified labour, with a growing number of those educated who are left unemployed.

Figure 8: Youth Unemployment Rates 2008



Source: ILO: Growth, employment and decent work in the Arab region: Key policy issues, Geneva 2009.

49 See Economist Intelligence Unit: *Libya Country Profile 2008*. London 2008, p. 4.

50 For details see: World Bank: *The Road not Travelled*, Washington D.C. 2007, p. 213 ff.

51 Porter, M. E.: *National Economic Strategy*, Tripoli 2006, p. 38. and Anonymous Author: *The informal sector in the Libyan labour market*, 2008.

52 See Economist Intelligence Unit: *Libya Country Profile 2008*. London 2008, p. 21.

Structural Imbalances in the Labour Market

Existing structural imbalances in the labour market – which lead to the low returns to education – are affected by various government policies that either diminish the prospects of job creation or lead to low productivity among workers.

A major influence on labour market development today is the legacy of *public sector employment* and employment intervention stemming from Libya's state-led and redistributable model of development. Beginning at the end of the 1960s the government nationalised major companies and took over direct control of the economic production. As a result employment in the public sector emerged increasingly as a primary engine for job creation. Under state ownership, workforce regulations included job security guarantees, social security programmes, relatively high public sector wages with generous non-wage benefits (such as family allowances), and sharp restrictions on firing.⁵³ The rise of the public sector in employment became a key factor of segmenting labour markets, with an employment structure biased towards better educated graduates and women. Estimates indicate that out of the 1.9 million of the national labour force (2008) the government employed up to 70 % (840,000) of all salaried Libyans. Libya's economy maintains some of the highest levels of public sector employment in the world.⁵⁴ Libya's exceptional public sector employment levels have impacted the returns to education through three main channels:

First: They have reduced the productivity of Libya's human capital base. A body of research on public sector employment argues that human capital in the public sector may actually reduce economic growth.⁵⁵ The degree to which Libya's exceptional public sector employment has lowered Libya's growth is not entirely clear. A study estimated that the loss of GDP growth in the MENA region from 1985 to 1995 was strictly due to public administration employment which was some 9 %.⁵⁶

Second: The wages and generous non-wage benefits offered by the public sector have resulted in unrealistically high wage expectations that have exacerbated the unemployment problem. The queuing for public sector jobs despite diminished job opportunities is evidence that wages and working conditions in the Civil Service remain attractive.

Third: The lure of public sector employment has influenced the returns to education by directly influencing educational choices. By rewarding educational credentials in public employment with higher wages and/or additional fringe benefits the government has encouraged investment in types of human capital that do not meet the requirements of a modern market economy, but meet the needs of state bureaucracies. *Individuals in Libya have often sought higher degrees and certificates to improve their chances for public sector jobs, but with little attention to content, quality or the requirements of the private labour market.*

⁵³ For details in MENA countries see: World Bank: *Unlocking the Employment Potential in the Middle East and North Africa: Towards a New Social Contract*. MENA Development Report, Washington D.C. 2003.

⁵⁴ See: World Bank: *The Road not Travelled*, table 7.6, Washington D.C. 2007, p. 226.

⁵⁵ See Pritchett, L.: *Has Education Had a Growth Payoff in the MENA Region?* Washington D.C. 1999.

⁵⁶ See: Pissarides, C.: *Labor Markets and Economic Growth in the MENA Region*, London School of Economics, London 2007 (unpublished).

Obstacles to Private Sector Employment

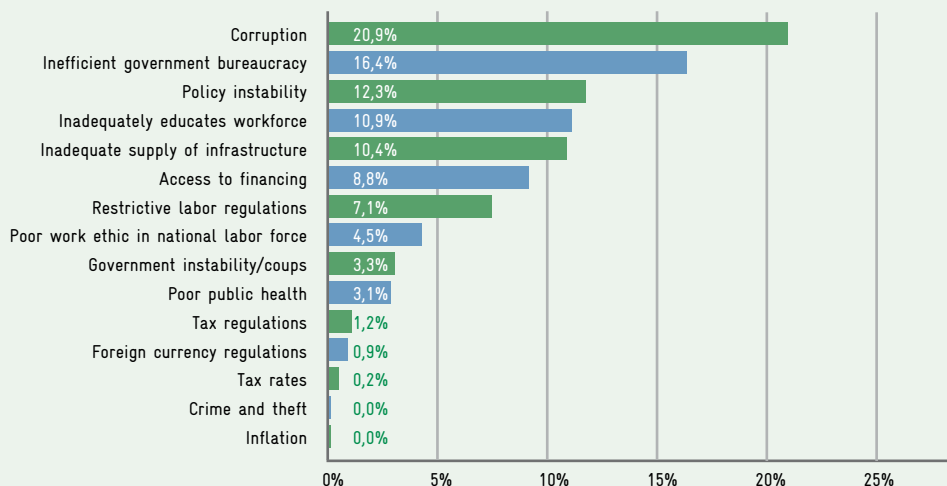
If Libya is to react successfully to the challenges of globalisation it needs to change the engines of growth towards a private sector driven market economy. The private (SME-) sector could enhance productivity and employment, but is restricted by an inefficient public sector and an unfavourable business environment.⁵⁷

According to the Global Competitiveness Report 2010-2011 insufficient government bureaucracy, policy instability and corruption are the most important obstacles to private sector development.

One reason is the poor input the private business community can contribute to policy formulation, limited access to information and mobilising change. Restrictive labour laws and regulations are additional constraints for private sector development and employment creation. But labour market restrictions are generally less problematic than the insufficient state bureaucracy.⁵⁸

Labour regulation problems are mostly related to the lack of availability of qualified – and motivated – Libyans within the quota system, constraints resulting from restrictions in hiring expatriates and difficulties associated with dismissing non performing national employees.

Figure 9: Most Problematic Factors for Doing Business in Libya



Source: World Economic Forum: The Global Competitiveness Report 2010-2011, Geneva 2010, p. 216.

Such restrictions on foreign workers will harm the competitiveness of Libya's private sector. The private sector finds it difficult to access skilled and motivated Libyan graduates. Despite high literacy levels and enrolment rates, the Libyan education system does not provide for the competencies required to drive the economy forward.⁵⁹ Libyan businessmen often cite the mismatch between the competencies they require for the job market, and

⁵⁷ Porter, M. E.: *National Economic Strategy*, Tripoli 2006, p. 5.

⁵⁸ See: World Economic Forum: *The Global Competitiveness Report 2010-2011*, Geneva 2010, p. 216.

⁵⁹ For details see chapter 5-9 of this study.

**Table 13: Labour Market Efficiency 2010
(Ranking of Libya – out of 139 Countries)**

Ranking	Rank
Cooperation in labour-employer relations	117
Flexibility of wage determination	123
Rigidity of employment	n/a
Hiring and firing practices	130
Pay and productivity	139
Reliance on professional management	139
Brain drain	134
Female participation in labour force	133

Source: World Economic Forum: The Global Competitiveness Report 2010-2011, Geneva 2010, p. 217.

the skills Libyan workers bring to the table. Employers complain of negative work attitudes, low responsibility and excessive white-collar orientation of the Libyan employees (see chapter 6 + 7).

Summing up

- (1) Libya's labour market can be characterised by two developments that have lowered the economic returns to investment in education: Rising unemployment and lower productivity of those employed, due to one of the highest rate of public sector employment (70 %) in the world.
- (2) Rising unemployment means fewer workers are contributing to economic growth, and lower productivity of those employed means reduction of production, output and growth.
- (3) Modest labour market outcomes are – at least partially – the result of structural imbalances between the supply and demand for labour. On the supply side increasing numbers of graduates from secondary and tertiary education, especially women, contribute to a rapid increase in the supply of labour. On the demand side capital-intensive growth of the economy was relatively labour-saving while the expansion of the numbers of graduates has continued.
- (4) As a result, a mismatch between the supply and demand for skilled and unskilled labour is growing, leading to rising rates of unemployment of Libyan nationals.
- (5) Paradoxically both are growing – the numbers of unemployed nationals and the numbers of migrant workers. This co-existence of unemployment and imported employment is a specific feature of the Libyan labour market. One explanation is that Libyan workers cannot compete with foreign workers, because of lower skills and competencies. Or they are not willing to compete, because of socio-cultural values and attitudes (white-collar orientation, low performance motivation)
- (6) State policies have played a negative role in determining low labour-market outcomes, thus diminishing the returns to investment in education. High public sector employment has led to a suboptimal use of labour and created expectations, which are an obstacle to private employment.
- (7) Bureaucratic regulations have constrained the growth of a productive and dynamic private sector, thus lowering the capacity of the Libyan economy to create productive jobs. As a result, informal sector employment seems to have risen, absorbing graduates who cannot afford to stay unemployed.
- (8) One major implication for a reform agenda is: Education reform in and of itself will not be sufficient to produce higher economic growth and development. The full benefits of better job-oriented education can only be reaped, if complementary reforms of the labour market will be implemented, which increase the demand for more productive human capital.

5. The Supply Side: Where has all the Education Gone? A Self-Assessment of School Graduates

Introduction

Confronted with growing unemployment of the educated youth there is a major concern in Libya about the mismatch between the competencies of Libyan graduates and the labour market requirements.

This chapter summarises the experiences and recommendations of the school graduates in a self-assessment study, 'looking back' to their school careers. The specific objectives of this part of the study are:

- (1) to summarise and interpret a self-assessment of basic and secondary school graduates regarding the competencies they acquired at school (looking back),
- (2) to summarise and analyse a self-assessment of basic and secondary school graduates regarding the competencies they need for their actual work (needs assessment),
- (3) to develop recommendations (i) how to close the gap between competencies acquired and competencies needed (ii) in order to improve the job-market- competencies of the graduates (iii) and to strengthen the linkages between the schools and the labour market.

The comparative advantage of this 'bottom-up' approach is, that the findings and recommendations coming from the graduates are directly related to their life and work-situation – and as a 'self-assessment' reproduce their experiences.

Major Findings

a) Graduation and Present Occupation

Most of the respondents are either graduates from higher vocational centres (31 %) or from universities (35 %). Only a small number of respondents finished education after secondary school (11 %) or intermediate vocational centres (13 %). There are also only a small number of respondents who have the highest educational level, which means post graduates (10 %).

Table 14: Educational Level of Respondents

Educational level	Percentage
	10.9
Secondary School	13.2
Intermediate Vocational Centre	31.0
Higher Vocational Centre	35.1
University	9.8
Post Graduate	100.0
Total	

Source: GIZ / IS 2009.

There are at least four explanations, why respondents left the education system immediately after graduating from secondary school (i) their marks were too weak to continue, (ii) they are living in remote rural areas, where access to higher education is difficult, (iii) they come from poorer families and cannot continue because of economic reasons, (iv) they are women who have to work in or for their families – or they got married.

Table 15: Correlation of Educational Level by Gender as percentage

Educational level	Male	Female
Secondary School	79.0	21.1
Intermediate Vocational Centre	69.6	30.4
Higher Vocational Centre	59.3	40.7
University	37.7	62.3
Post Graduate	58.8	41.2

Source: GIZ / IS 2009.

62% of women in our sample have a university degree, compared with only 38 % men. Just the opposite is true with regard to lower educational levels. Obviously women are aiming at the highest level of education, e.g. a university degree. At secondary school level 80 % are boys, at intermediate vocational centre level 70 % are boys.

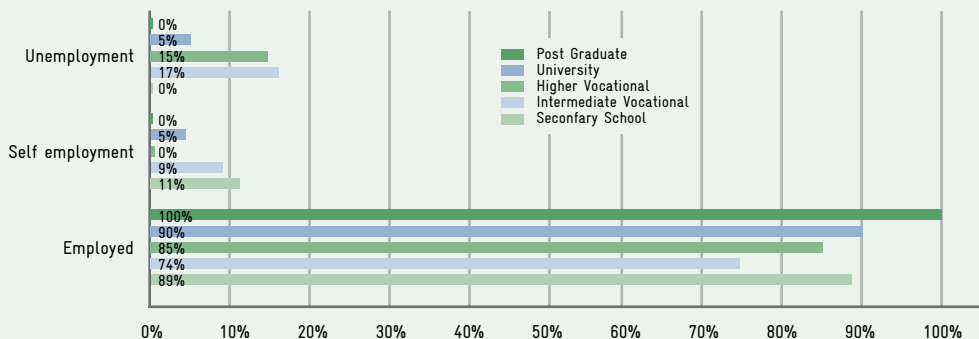
With increasing educational levels the percentage of female graduates is increasing. The male Libyans in our sample are stopping their 'educational career' earlier than women. An interpretation for this

result, from the cultural background of Libya, could be that women need higher educational degrees for getting (i) a position in the public sector, (ii) a position in private companies or (iii) a very reputable husband.

More than 90 % of the respondents actually have a job, but only 4 % of them decided to be self-employed. It cannot be excluded, that the percentage of self-employed graduates is much higher, because of illegal business in addition to a legal status of dependent employment.

Self-employment is dominated in our sample by graduates from secondary schools (11 %) and from intermediate vocational centres (9 %). The reason for this seems to be the fact that sometimes starting a business, for example a shop for cigarettes, or mobiles and technical equipment or a taxi business it is the only chance for them to avoid unemployment. None of the post-graduates are unemployed or self-employed. A PhD seems to be a guarantee for a job in wage-employment.

Figure 10: Correlation of Current Occupation (Kind of Employment) with Educational Level



Source : GIZ/IS 2009.

Table 16: Correlation of Current Occupation (Sector of Employment) with Educational Level as percentage

Sector of Employment	Secondary School	Intermediate Vocational Centre	Higher Vocational Centre	University	Post Graduate
Unemployed	0.0	17.4	14.8	5.0	0.0
Educational	0.0	4.4	11.1	18.0	58.8
Health	5.3	8.7	7.4	3.3	0.0
Industrial	21.1	26.1	18.5	18.0	0.0
Others / Administration	68.4	39.1%	38.9	52.5	41.2
Services	5.3	4.4	9.3	3.3	0.0

Source: GIZ / IS 2009.

Concerning unemployment there is a dominance of graduates from the intermediate vocational centres (17 %) and from higher vocational centres (15 %). Obviously content and quality of these two educational levels should be improved at least in some parts to increase the employability of graduates.

Generally speaking there is in our sample a positive correlation between educational level and employment: The higher the educational level, the higher the probability to get a job. Therefore it is quite rationale for parents to send their children to the highest educational institution available.

Graduates from HVCs and universities are working in three sectors, education, industry or administration/others obviously preferring jobs in the public sector.

The employability for the educational sector grows with increasing educational level. In contrast service, industry and health sectors are only loosely linked to educational levels of graduation.

68 % of all secondary school graduates are working in administration (others). The reason for this high percentage could be that there is a big need for employees at the lower – public or private – administrative positions.

Comparing the current occupational status of the respondents with respect to gender there are significantly more unemployed women (67 %) than men (only 33 %) in our sample. Self-employment, regarding the respondents of the study, is only realised by males! The reasons for this fact can be cultural, religious or societal circumstances, whereby women are not allowed to be self-employed if they are married. One economic reason might be the difficult access to loans or missing securities. In the field of wage-employment there is a moderate balance between male (55 %) and female (45 %).

b) Additional Jobs and Further Training

An important indicator for additional competency- and training needs after graduation is the degree of joining additional training courses, their content and the willingness of graduates to contribute in cash or kind for this training. Only 34 % of the respondents participated in further training. The reason for this relatively disappointing result seems to be the opinion of graduates that from their point of view certificates are more important than competencies. They already belong to the 'happy few'. Another reason might be, that the idea of human resource development especially within the public sector is not very common – and that the concept of life-long-learning is nearly unknown. All of the graduates who underwent additional training have taken *computer science*

courses (=100 %), and nearly 70 % *foreign languages*, mainly English courses with native speakers as lecturers.

Many private companies, especially the foreign firms, demand as an entrance qualification computer and language certificates, otherwise the applicants don't have a chance obtaining a job. Those who possess skills in English language, inter-cultural communication and/or in computer science will be given priority in private Libyan firms as well. A direct relationship between obtaining additional qualifications via further training and getting a job is demonstrated in the advertisement campaigns of private companies.

In general female respondents are much more willing to participate in further training than males (52 %). Reasons for this could be that (i) women (61 %) have to be better qualified than men to get the same or a comparable position; (ii) women are more motivated to invest in themselves and their possible future (an explanation which generally corresponds with our findings).

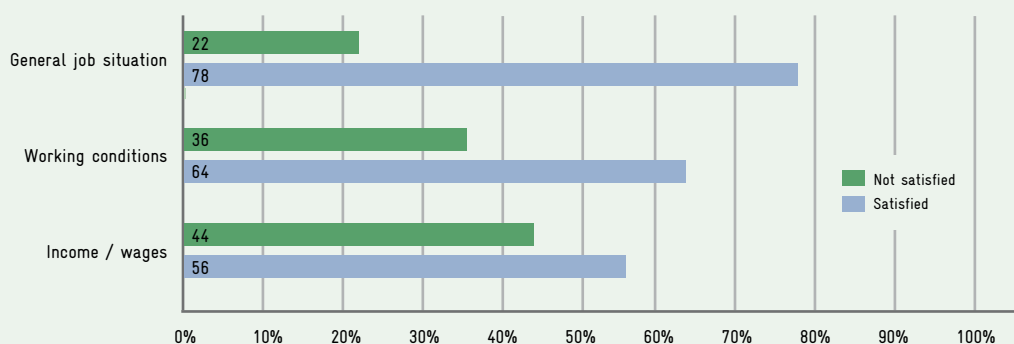
The majority of 64 % of the respondents are paying for further training on their own. This relatively high percentage maybe caused by the fact that further training is not paid by the employer.

c) Job Satisfaction and Future Opportunities

In general the respondents are to a high degree satisfied with their current job situation (78 %). But nearly 40 % of them are dissatisfied with their actual working conditions and nearly half of them would like to have a better payment or salary system. Maybe sometimes the working conditions are assessed more critically because the majority of graduates are getting jobs through relationships and not according to their needs, job profiling processes or motivation.

In general *there is a high job satisfaction at all educational levels*. Surprisingly the highest one is at the level of the intermediate vocational centres and the lowest at Post Graduate level.

Figure 11: Job Satisfaction



Source: GIZ / IS 2009.

Self-Assessment of Competencies Acquired at Schools by the Graduates

a) Competency Assessment by Graduation

In general the respondents' assessment of competencies they acquired at schools demonstrates that graduates are not really well prepared for the labour market. *It is an alarming signal, that half of the graduates - looking back from their actual status and position - rate the education that they had at school as being 'insufficient' – irrespective of competencies, skills and qualifications, they obtained at school.*

- (1) Comparing the highest educational level of graduates, the results show that in general graduates from *secondary schools and intermediate vocational centres* are much more critical than other graduates, because they assess the competencies they acquired during schooling often more negatively than graduates from higher educational levels. With regard to the very bad assessment of occupational competencies especially graduates from secondary schools (72 %) and from intermediate vocational centres (69 %) say that they really were ill prepared for the needs of the labour market and the working society.

Graduates and postgraduates from universities seem to be better prepared for the requirements of the labour market. Looking back they assess the competencies they got better (with occupational competencies 46 % resp. 38 % as 'insufficient'), although they are very critical of methodological competencies (64 % 'insufficient') (see Table 17, p.102).

Generally speaking there seems to be a positive correlation between the educational level and the assessment of competencies: The higher the educational level – the more positive is the assessment.

- (2) When comparing the assessments of *the different components of the competency-portfolio* the most negative evaluations are made with respect to *methodological and entrepreneurial competencies*. In both cases the graduates are very critical, (between 50 % and 63 % referring to 'methodological' and 49 % and 67 % referring to 'entrepreneurial competencies'), although there are positive deviations with respect to intermediate vocational centres ('methodological competencies' 'only' 50 % 'insufficient') and to higher vocational centres ('entrepreneurial competencies' 'only' 48 % 'insufficient'). The high degree of dissatisfaction is linked to the fact that there seems to be an enormous lack of practical IT-skills and of foreign languages, both being basic competencies needed to operate successfully as an entrepreneur or employee in (inter)national markets.
- (3) An interesting comparison is the comparison of general and vocational education at the same educational level. At secondary level intermediate vocational centres are assessed much better than general secondary schools, this is true especially for methodological and entrepreneurial competencies. At tertiary level higher vocational centres compared with universities do have comparable results, with the remarkable exception of occupational and entrepreneurial competencies, where higher vocational centres produce better results than the universities. Although there is much criticism, that there is too much academic/ theoretical teaching at HVCs, they seem to prepare their graduates better for the requirements of the labour market than universities.

Table 17: Correlation of Assessment of Competencies of Graduates with Educational Level as percentage

Educational Level	Occupational competencies		
	insufficient	sufficient	good
Secondary School	72.2	5.6	22.2
Intermediate Vocational Centre	68.2	9.1	22.7
Higher Vocational Centre	42.3	25.0	32.7
University	45.8	17.0	37.3
Post Graduate	37.5	18.8	43.8
Educational Level	Social competencies		
	insufficient	sufficient	good
Secondary School	64.7	17.7	32.1
Intermediate Vocational Centre	47.1	11.8	41.2
Higher Vocational Centre	48.9	19.2	31.9
University	44.7	25.5	29.8
Post Graduate	37.5	31.3	31.3
Educational Level	Methodological competencies		
	insufficient	sufficient	good
Secondary School	72.2	11.1	16.7
Intermediate Vocational Centre	50.0	25.0	25.0
Higher Vocational Centre	61.7	19.2	19.2
University	63.8	12.8	23.4
Post Graduate	43.8	37.5	18.8
Educational Level	Entrepreneurial competencies		
	insufficient	sufficient	good
Secondary School	66.7	11.1	22.2
Intermediate Vocational Centre	57.1	14.3	28.6
Higher Vocational Centre	48.8	25.5	25.5
University	57.8	13.3	28.9
Post Graduate	50.0	28.6	21.4

Source: GIZ / IS 2009.

When comparing the answers of the graduates with the assessment of entrepreneurs and human resources managers – both of the private business community and the public sector – there are no significant differences.

Analysing the '*insufficient*'-answers in comparison, the assessment with respect to

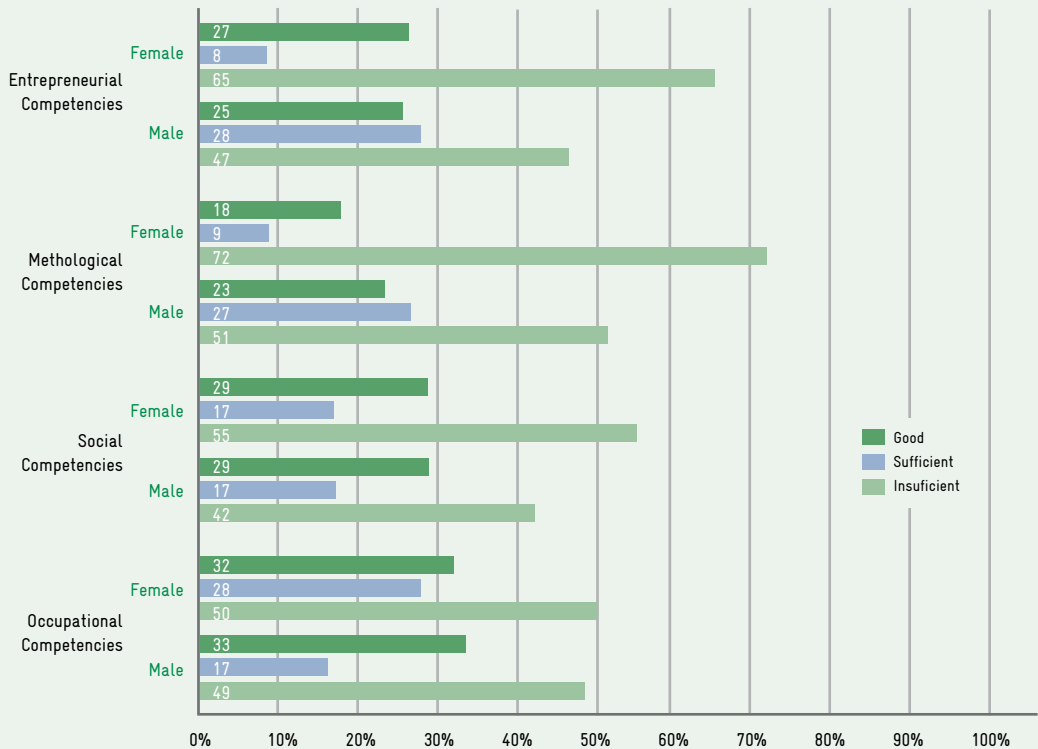
- occupational competencies is 50 % graduates, private entrepreneurs 51 %,
- social competencies graduates 48 %, entrepreneurs 43 %,
- methodological competencies graduates 60 %, entrepreneurs 54 %,
- entrepreneurial competencies graduates 55 %, entrepreneurs 53 % (for details see chapter 6 +7).

This means, that the graduates – being confronted with the demands of the labour market – are more critical of their schools than the private entrepreneurs and human resource managers. The results show that in all four competencies there are high deficits concerning the teaching outcomes especially at the educational level of secondary school or intermediate vocational centres.

b) Competency Assessment by Gender

In general women are much more critical than men, because they assess the competencies they acquired at schools significantly more negatively than men. Female respondents believe that the methodological (72 %, men: 51 %) and the entrepreneurial (65 %, men: 47 %) competencies are the worst ones. These answers generally correspond with the findings of our survey that women in Libya are much more ambitious with respect to professional competencies and work attitude - and therefore much more critical and dissatisfied with the education they obtained at schools.

Figure 12: Correlation of Assessment of Competencies by Graduates from Secondary Schools or Intermediate Vocational Centres by Gender



Source: GIZ / IS 2009.

Conclusions

The following conclusions are preliminary – and they only refer to the 174 graduates of our study. No more – and no less.

- (1) The higher the educational level, the more individuals are working in the public sector. Less than 10 % of graduates in our sample are unemployed. All self-employed participants in the study have their professions in commercial activities, not in industrial or agricultural types of activities.
- (2) The higher the educational level, the easier and the faster to get a job. Therefore it is a rationale, to try to obtain the highest certificate available.
- (3) The job direction taken by most graduates is to administrative specialisations and avoiding technical and production-oriented fields. This 'white-collar'-orientation of the graduates reduces their chances of obtaining a job in product-oriented companies and specializations (which are especially needed in growth sectors like construction, oil-and gas and energy dependent sectors).
- (4) Nearly 80 % are satisfied with their current job situation.
- (5) When searching for jobs, personal relationships and individual family networks are more important than other, more transparent ways of applying for jobs. Preferential treatment and personal relationships may negatively impact the productivity of the individuals and the company.
- (6) One third of the graduates attended additional training courses, mostly paying the fees themselves. Training in foreign languages, computer, communication skills, presentation techniques, business and leadership qualifications are some of the most important areas, which must be acquired by additional training in order to find a better job with a higher income. The higher the educational level the higher the percentage of graduates participating in additional training.
- (7) Female graduates are more interested and motivated in additional training than males.
- (8) More than 50 % of the graduates assess the competencies they learned at school as 'insufficient'- and only 25 % answered with 'good'. This is an alarmingly negative result.
- (9) The graduates are especially missing 'methodological competencies' (foreign languages, computer sciences, presentation techniques, information collection, data interpretation) and 'entrepreneurial competencies' (taking initiative, proactive behaviour, performance and achievement orientation, innovative thinking).
- (10) Additional criticism of the graduates concentrates on: Shortage in foreign language curricula, weak methods of teaching, shortage in statistical programmes and information research, lack of computer courses in intermediate vocational centres and secondary schools, lack of internet access. These weaknesses have in the eyes of the respondents negatively affected the quality of the output of the education system, with corresponding consequences for the labour market.
- (11) Female graduates are much more critical with the results of their schooling than males, maybe women are more eager to learn, more ambitious and motivated to accumulate knowledge and to obtain a job.

- (12) There is a positive correlation between educational level and assessment of competencies learned: The higher the educational graduation, the more positive the assessments. Graduates from secondary schools and intermediate vocational centres are especially critical. More than 50 % of graduates from HVC and universities assess their education as being ‘insufficient’.
- (13) Comparing the same level of education, intermediate vocational centres are assessed as being better than secondary schools, and higher vocational centres as being better than universities. The comparative advantage of some vocational institutions seems to be: (i) more practical orientation of curriculum and teaching (ii) more trainers/instructors with business background and experience.

The general conclusion of the self-assessment study is: Obviously Libyan schools are producing competencies, which are only to a very limited degree needed by the labour market, and the labour market needs competencies which are only to a very limited degree produced at schools.

Major Recommendations by the Graduates

The Libyan graduates recommend:

- (1) The development of human resources is a big challenge for Libya. Implementing reform programmes in the education system (curricula/quality of teachers, equipment) on a continuous basis are necessary. Spending for education should be considered an investment, not just consumption.
- (2) Libya should benefit from the experience of developed countries in the field of human resource development.

- (3) It is essential to have a tight coupling between the outputs of schools and the labour market demand.
- (4) The results may require changing the existing socio-cultural values – like certificate and white-collar-orientation – to competency and blue-collar-orientation. This change might meet better the requirements of the labour market, reduce unemployment and contribute to economic development.
- (5) Attention should be given to vocational training by increasing its investment instead of heavily relying on the general education expenditure. Technical and vocational education is more capable to produce skilled graduates who are needed in production-oriented activities.
- (6) Restructure and develop the management of educational institutions by appointing the right person for the right place, based on performance.
- (7) Modernise the education system to include the development of the missing ‘methodological competencies’ like foreign languages, computer sciences, presentation techniques, information collection, data interpretation and ‘entrepreneurial competencies’ such as problem-solving, analytical thinking, taking initiative, proactive behaviour, innovative thinking, and performance and achievement orientation.
- (8) A general plan for introducing the above mentioned competencies in the national curricula, starting with basic schools, should be established, including modern methods of student-centred and interactive learning.

6. The Demand Side (I): The Requirements of the Labour Market assessed by the Private Business Sector

Introduction

With private businesses 'entering' the labour market after the opening of the Libyan economy, they applied completely different criteria when recruiting, selecting and promoting employees. As private enterprises they have to apply a thorough cost-profit-analysis on the productivity of their manpower, not formal certificates (as in the public sector) but competencies and work attitudes like performance orientation are decisive.

The specific objectives of this part of the Labour Market Study are:⁶⁰

- the assessment of the competencies of graduates of secondary schools and of intermediate vocational centres by private foreign and Libyan entrepreneurs,
- their recommendations to improve the job-market competencies of the graduates to prepare them for the labour market – and to reduce unemployment.

Forecast of the Most Dynamic Sectors of the Libyan Economy

The development of the labour market – with respect to the quantity, the quality and the structure of manpower needed – depends on (i) the assessment of the most dynamic economic sectors and (ii) the assessment of obstacles to future growth.

Most general managers believe that the most dynamic sectors until 2015 (see Figure 13) will continue to be construction and the oil & gas sector, referring to heavy infrastructure projects (airports, ports, railways, streets, public and private buildings) and the energy resource potential of Libya, where they strongly recommend to invest in down-stream industries (chemicals, pharmaceuticals, plastics etc.⁶¹). This means that diversification away from oil, which has been an aim of economic policy, is assessed by the respondents as being a failure.

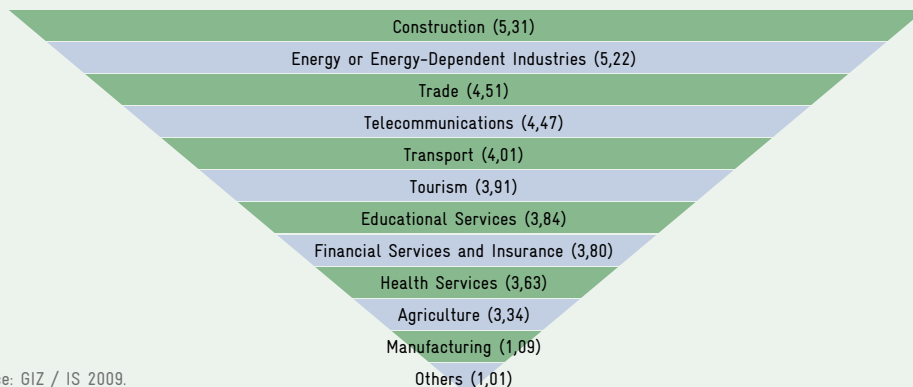
The high ranking of trade is justified with the traditional role of Libya as a traders' nation between the Arab, the African and the European world, trade and telecommunications with the opening of the economy to international markets, private health and education as competitors to weak public educational and health services. The low rank of agriculture is justified with output constraints by a shortage of arable land and indigenous labour. Also manufacturing has in the eyes of the entrepreneurs a low growth potential because of its associations with hard manual work and dirty hands by Libyan nationals.⁶²

⁶⁰ For the following see Treki, M.: *Assessing the Performance of Graduates from Education & Vocational Training Institutions and the Labour Market Demand by the General Managers & Human Resource Managers of the Private Sector in Libya. Study on behalf of GIZ International Services for the General Peoples' Committee for Education and Scientific Research, Tripoli 2009 (draft).*

⁶¹ Some managers – looking far ahead – support investment in renewable energy, solar and water.

⁶² This should be kept in mind when promoting vocational training centres concentrating on jobs in manufacturing/industrial branches because of low acceptance in the Libyan society. The same might be relevant when promoting SMEs in the manufacture sector.

Figure 13: Ranking of the most Dynamic Sectors of the Libyan Economy



Source: GIZ / IS 2009.

Quotations from Respondents – Development of the different sectors

“The construction sector is very dynamic, but highly dependent on government activities. Many infrastructure projects have been realised or are in the pipeline.”

(General Manager of a foreign firm – manufacturing/construction)

“The energy sector will be very dynamic if it succeeds in establishing downstream industries in the chemical and pharmaceutical branches. Trade with the Arab region?”

(Director of a Libyan company – education and training)

“Tourism – beautiful beaches, but no hotel-chains, no tour-operators, no tourism academy – Similar to the state of affairs in Romania in the 60s. The strong competition from Tunisia and Egypt in the region. No service mentality in Libya. Also we have to be aware of an open and intercultural atmosphere.”

(Managing Director of a Libyan insurance company)

“Trade - We are not a manufacturing people but traders.”

(Director of a Libyan company – education and training)

“The Oil and Gas sector – most important, everything cascades down from that.”

(Human Resource Manager of a Libyan company – financial services)

“Education is seen as a private business investment. English language studies and courses need to be with native English speakers – scholarships to English speaking countries.”

(Chargée d'affaire – foreign embassy)

Obstacles to Development

The list of obstacles given by the private entrepreneurs is impressive – and there are variations with respect to the size of the company, the sector, and to Libyan or foreign companies.

However, the vast majority of the respondents agree, that *lack of qualified manpower* (=72 %) and strong administrative regulations (=51 %) are the most important obstacles to the growth, development and prosperity of Libya. Difficult access to credits/loans ranks third. Surprisingly lack of demand, lack of modern equipment and even strong competition are not ‘the’ bottlenecks for the development of the private sector.

Quotations from Respondents – Strengths and Weaknesses of the Libyan Economy

“Libya is a strategic place for financing, insurance and travelling, because it is the “Gateway to Africa and the Arab World and very close to Europe.”

(General Manager of a Libyan firm – financial services)

“In 15 Years Libya will be like Dubai today. The country is developing very fast.”

(Operations Manager of a foreign company – construction)

“Potential of the private sector.”

(Libyan businessman – National/international trade)

“Problems with a high level of corruption.”

(Human Resource Manager of a Libyan company – construction/manufacturing sector)

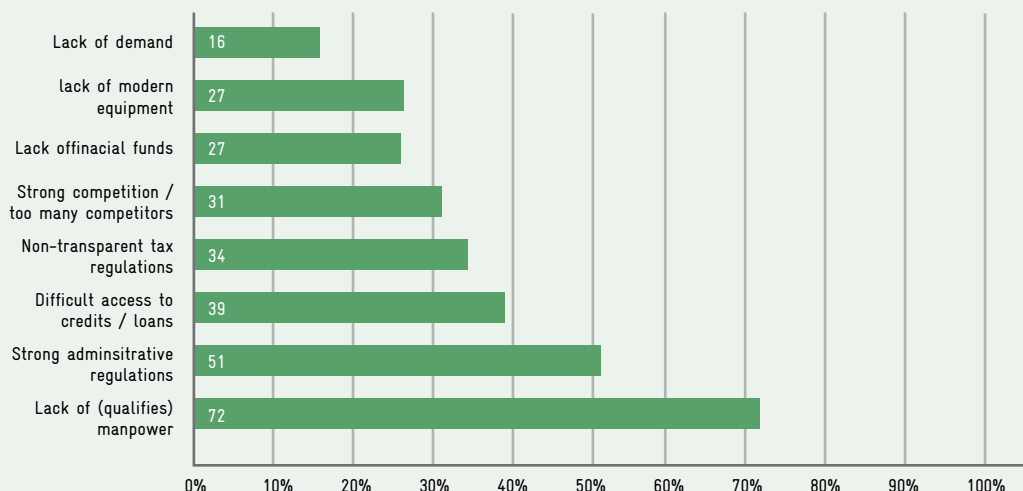
“Dependency on oil is an obstacle to sustainable economic development. Heavy discrimination of the private sector by the government/ privileged state companies destroy fair competition.”

(Libyan Businessman – national and international trade)

“Dependency on the foreign workforce. Attitudes of Libyan Graduates: no responsibility, no reliability, passive behaviour/leisure-orientated.”

(Libyan Businessman – IT-manufacturing and service)

Figure 14: Main Difficulties of Economic Development



Source: GIZ / IS 2009.

Competency Assessment of Libyan School Graduates

a) General Assessment

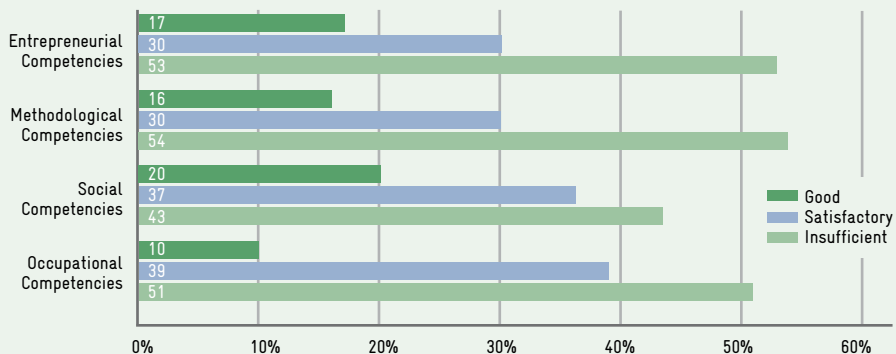
When evaluating competencies and attitudes of Libyan graduates by the private – Libyan and foreign – entrepreneurs with respect to the needs of their companies a competency-portfolio approach has been applied. This approach was proposed by human resource managers both of the private and the public sector (for details see chapter 2). Four different categories of competencies have been distinguished:

- Occupational Competencies = main professions, IT skills, business language, etc.
- Entrepreneurial Competencies = achievement motivation, performance orientation, etc.
- Social Competencies = teamwork, communication, negotiating skills, etc.
- Methodological Competencies = creative problem solving, organization, presentation techniques etc.

The most important findings are (see Figure 15):

- (1) The majority of private entrepreneurs assess the school system as producing insufficient results with respect to all competencies educated/developed during schooling ('insufficient' answers between 43 % and 53 %)
- (2) Three of the competences – occupational, methodological and entrepreneurial – are assessed as being more than 50 % insufficient.
- (3) The command especially of methodological competencies (54.3 %) and entrepreneurial competencies (52.9 %) is evaluated very critically.
- (4) The social competencies are assessed as relatively positive with 'only' 42.9 % being 'insufficient' – but only 20 % as being good.
- (5) The relation between 'good' to 'insufficient' answers varies between 1 : 2 (social competencies) to 1 : 5 (occupational competencies).

Figure 15: Assessment of Different Competencies by Private Entrepreneurs / General Managers



Source: GIZ / IS 2009.

The general conclusion is: There is a significant mismatch between the competencies/skills/work attitudes of the Libyan graduates and the requirements of the labour market.

It is an alarming signal, that the majority of private businessmen in Libya evaluate the graduates of the Libyan education system – irrespective of the educational level - as having insufficient competencies, skills and work attitudes. This seems to be one of the reasons, why private firms prefer foreign migrant workers – and why some of them prefer Libyan nationals who have studied abroad and have been exposed to international business cultures. To a certain degree the frustration about the Libyan education system is so high, that some entrepreneurs disconnect their companies from the national education system (and establish an autonomous in-house-further training system) – or prefer a ‘picking-the-winner’-strategy by recruiting Libyan graduates only from benchmark schools, universities and study courses.

Quotations from Respondents – Assessment of the Education System and the Competencies of the Graduates

- Graduates want to get a job in the public sector, and then they start their own private businesses. The whole system of education is weak. Curriculum is too theoretical and ambitious and academic. (Head of Training Division of a Libyan company – financial services)
- The education system is corrupt. You cannot trust an examination result. Teachers have no status in the society. (Head of Human Resource Department of a foreign company – energy sector)
- Schools’ skills are insufficient, especially math/ humanities/reading and writing. English language knowledge is non-existent. Basic Computer skills do exist. (General Manager of a Libyan company – Vocational Training Institute)
- General remarks: Anti-working behaviour and attitudes/leisure-orientation/high job mobility/ no punctuality/ not taking responsibility and risks/no analytical thinking trained/no problem-solving/ only passive memorising as in Koran Schools. (Entrepreneur of a Libyan company – manufacturing and service sector)
- All problems in Libya are problems of education. The transition to the private sector has revealed the weaknesses of the old education system. The private sector is interested in competencies and performance, not in certificates. For the Government loyalty is important, not competency. (Representative of the General Union of the Chambers of Commerce and Libyan entrepreneur)
- Graduates are certificate oriented, not competency oriented. Teachers and parents are not positive role models. Memorising is an obstacle to analytical thinking and problem solving. We have disconnected our companies from the education system. We are self-sufficient and on our own with extensive in-house-training programmes. (Entrepreneur of a Libyan company – conglomerate, import trade, service sector)
- No technical interests, white-collar orientation. (Manager of a foreign firm- manufacturing/ construction)
- Curricula not oriented towards the needs of the labour market. Graduates have no labour market orientation. Vocational graduates are too theoretical; they don’t have any practical experience. (Technical Director – Libyan company – construction)
- In the education system there are a lot of wrong people in the wrong positions, concerning their abilities, competencies and skills. (General Manager of a Libyan company – manufacturing)

- The education system is dead. (Operations Manager of a foreign company – construction/energy)

b) Differences in Competencies Assessment between Libyan and Foreign Entrepreneurs

When comparing the competency assessment of graduates by Libyan entrepreneurs with foreign entrepreneurs, foreign entrepreneurs/general managers are generally much more critical (see Table 18).

General managers of foreign firms especially criticise, that many Libyans have an ‘attitude’ problem with respect to reliability, punctuality, performance and achievement orientation. Therefore working in the public sector with a ‘white-collar’ job is preferred by Libyan graduates to the private sector, where competition between the employees is much more intensive – and where job demands are much higher. These seem to be the reasons, why foreign firms prefer non-Libyan migrant workers or Libyans who have studied abroad and have been exposed to Western business cultures.

Quotations from Respondents – Manpower Requirements of Foreign Firms

“Foreign companies need: team-work, entrepreneurial behaviour, communication skills, problem-solving competencies.”

(Human Resource Manager of an international company – energy sector)

“Taking initiatives, being active and performance oriented is contrary to the learning styles in the schools.”

(Entrepreneur of a Libyan company – conglomerate, import trade, service sector)

“There is a cultural gap between the expectations of foreign companies (= performance driven, team work, proactive behaviour) and the graduates of the education system (= family orientation, passive/non-achievement orientation).”

(General Manager of a foreign company – manufacturing/engineering)

“Libyans are not competitive. Low motivation, low morale, low performance. Motivations and qualifications of international competitors is unknown.”

(Representative of a foreign embassy)

Table 18: Assessment of Competencies by Nationality of the Companies as percentage

	Occupational Competencies		
	insufficient	satisfactory	good
Libyan	43.2	45.5	11.4
Foreign	69.6	21.7	8.7
	Social Competencies		
Libyan	43.2	29.6	27.3
Foreign	43.5	52.2	4.4
	Methodological Competencies		
Libyan	52.3	31.8	15.9
Foreign	60.9	21.7	17.4
	Entrepreneurial Competencies		
Libyan	53.5	23.3	23.3
Foreign	76.5	11.8	11.8

Source: GIZ / IS 2009.

"Firms prefer ex-pats because of their work motivation/work attitudes and qualifications. In Libyan society there is contempt for teachers, professors and the education system."

(Charge d'affaire of a foreign embassy)

"Libyans are disinterested in hard and 'dirty' work,

but interested in office work and driving a car."

(Human Resource Manager of a foreign company – construction/manufacturing)

"We prefer to have Libyan workers who have a normal family life instead of Filipinos, living in compounds, isolated from their children and wives. But we only have very few Libyan employees such as those mentioned above."

(General Manager of an international firm – construction)

The main explanations for these differences given by the Libyan and the foreign entrepreneurs/general managers are:

- (1) International firms are more demanding with respect to the competencies they require, because of international competition.
- (2) International firms are operating world-wide in complex markets with sophisticated technologies; therefore they need employees with a complete competence-portfolio, including the command of international languages, information technology and intercultural skills.
- (3) International managers can better compare the Libyan with international education systems
- (4) International firms are bigger firms; therefore they need more entrepreneurial competencies on different levels of the company (intrapreneurship).

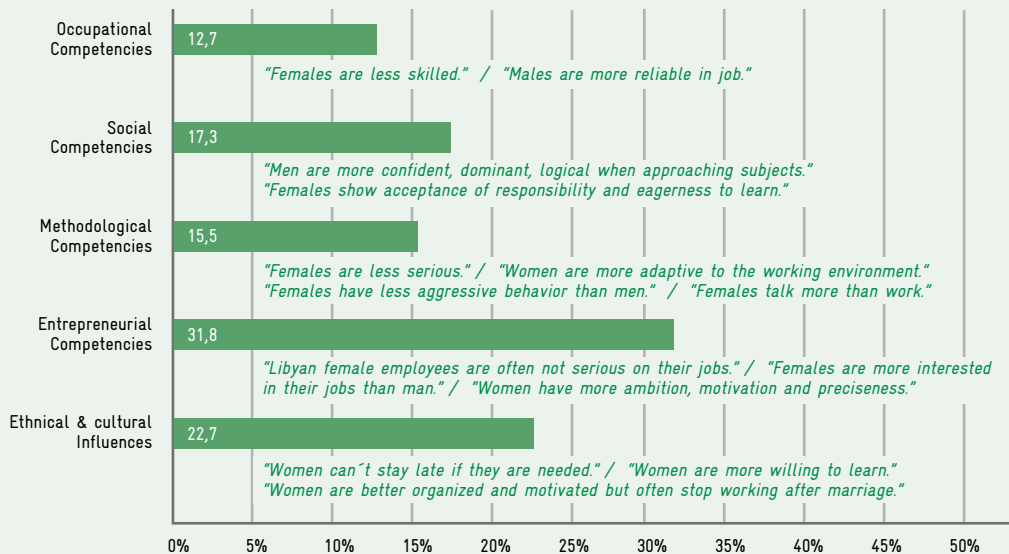
c) Differences in Competencies between Male and Female Graduates

The majority of entrepreneurs (65 %) believe, that there are significant gender differences in attitude and competencies. Some managers prefer to recruit females, because of their discipline, responsibility and reliability, and positive attitudes towards their jobs. They have a belief that female employees are more motivated and faster learners. But a minority of respondents argued the opposite that women do not take their jobs seriously; have fewer skills and other deficiencies, or will leave the labour market after marriage.

Generally speaking, foreign managers see more differences in competencies and work attitudes between the sexes (Libyan managers 59 %, foreign managers 78 %) – and foreign managers even more emphasise the positive work attitudes and competencies of their female employees.

The majority of entrepreneurs believe, that females do have many more entrepreneurial competencies – like taking initiative, feeling responsible, being performance and achievement oriented – than men. These differences are rated first with 32 %, followed by differences in social competencies (17 %) and methodological competencies (16 %). The least differences seem to exist with respect to professional/occupational competencies (13 %).

Figure 16: Kind of Differences between Male and Female Regarding their Competencies



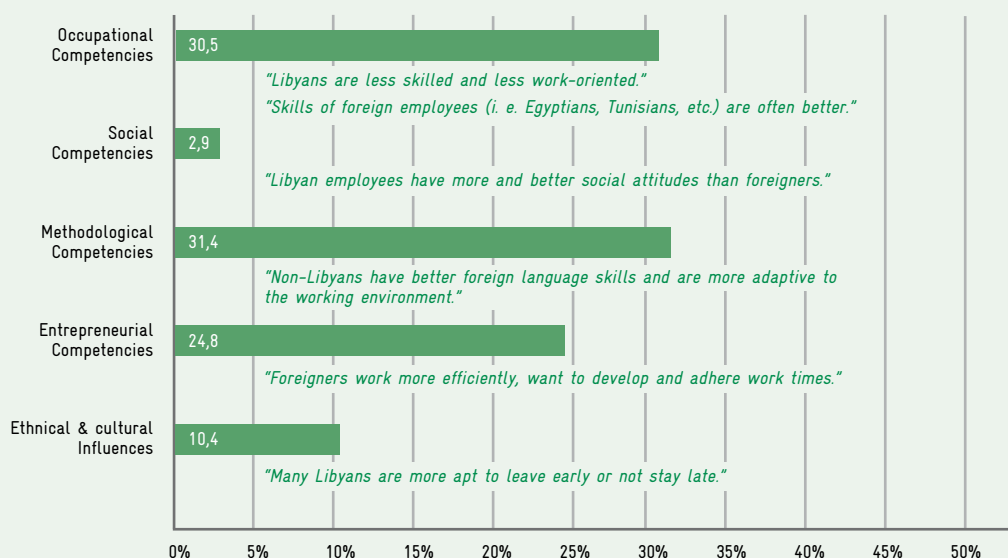
Source: GIZ / IS 2009.

d) Differences in Competencies between Libyan and non-Libyan Employees

The vast majority of the respondents assess these competencies of *non-Libyan employees as being much better*. "They know what to do – and they know how to do it". Libyans on the contrary lack occupational competencies, economic and technical qualifications, communication skills and international languages, especially English. The majority of the Libyans – so the argument goes – are interested in certificates not in competencies. Also most of the Libyan and foreign managers emphasise their experiences, that Libyan employees have "*an attitude problem*". They dislike being criticised, are more passive and less performance oriented than the non-Libyan employees. Some of the Libyan employees do have the necessary competencies, but very often prefer a kind of 'job hopping'.

But: The majority of the foreign entrepreneurs argue, that they *would prefer to employ Libyan nationals*, because they do come from a healthy social environment, intact families and stable networks, instead of employing foreigners, who live in compounds, separated from their families and social relations but: Either the Libyan nationals are unavailable or they cannot compete with non-Libyans (see figure 17, p. 114).

Figure 17: Kind of Differences between Libyan and Non-Libyan Regarding their Competencies



Source: GIZ / IS 2009.

e) Differences in Competencies According to Educational Level

The majority of graduates from basic schools are rated 'insufficient' (= 60 %), the graduates from universities 'only' 18 %. The most frequent answers are 'satisfactory' with regard to secondary, HVC and university graduates, 'insufficient' with regard to basic school graduates and 'good' with regard to IVC graduates.

In the categories basic schools/secondary schools the majority of respondents answered with "not relevant", because these firms do not employ graduates of basic or secondary schools.

With regard to 'social competencies' the same correlation between educational level and assessment of competencies holds true. 'Methodological competencies' are assessed comparably, with an increase

Table 19: Assessment of the Competencies and Attitudes of Libyan Graduates Related to Educational Level BASIC SCHOOL as percentage

Competencies	good	satisfactory	insufficient	Total
Occupational Competencies	12.5	25.0	62.5	100.0
Social Competencies	33.3	25.0	41.7	100.0
Methodological Competencies	25.0	12.5	62.5	100.0
Entrepreneurial Competencies	36.4	18.2	45.4	100.0

Source: GIZ / IS 2009.

Table 20: Assessment of the Competencies and Attitudes of Libyan Graduates Related to Educational Level SECONDARY SCHOOL as percentage

Competencies	good	satisfactory	insufficient	Total
Occupational Competencies	23.1	53.8	23.1	100.0
Social Competencies	29.4	35.3	35.3	100.0
Methodological Competencies	13.3	26.7	60.0	100.0
Entrepreneurial Competencies	25.0	50.0	25.0	100.0

Source: GIZ / IS 2009.

Table 21: Assessment of the Competencies and Attitudes of Libyan Graduates Related to Educational Level INTERMEDIATE VOCATIONAL CENTRES as percentage

Competencies	good	satisfactory	insufficient	Total
Occupational Competencies	35.3	29.4	35.3	100.0
Social Competencies	36.8	31.6	31.6	100.0
Methodological Competencies	17.6	47.1	35.3	100.0
Entrepreneurial Competencies	27.8	38.9	33.3	100.0

Source: GIZ / IS 2009.

Table 22: Assessment of the Competencies and Attitudes of Libyan Graduates Related to Educational Level HIGHER VOCATIONAL CENTRES as percentage

Competencies	good	satisfactory	insufficient	Total
Occupational Competencies	25.0	60.0	15.0	100.0
Social Competencies	40.9	45.4	13.7	100.0
Methodological Competencies	38.1	38.1	23.8	100.0
Entrepreneurial Competencies	42.9	38.1	19.0	100.0

Source: GIZ / IS 2009.

Table 23: Assessment of the Competencies and Attitudes of Libyan Graduates Related to Educational Level UNIVERSITIES as percentage

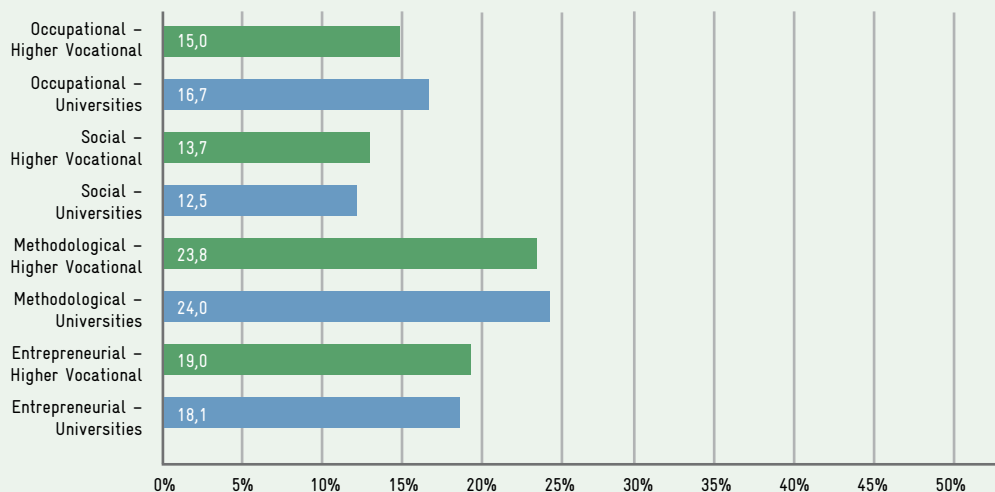
Competencies	good	satisfactory	insufficient	Total
Occupational Competencies	37.5	45.8	16.7	100.0
Social Competencies	50.0	37.5	12.5	100.0
Methodological Competencies	36.0	40.0	24.0	100.0
Entrepreneurial Competencies	36.4	45.5	18.1	100.0

Source: GIZ / IS 2009.

in the educational level the percentage of 'insufficient' answers decreases. And the IVC graduates are significantly better (concerning job-related, work-place oriented methodological competen-

cies). The highest percentage of 'good' answers is remarkably given for HVCs graduates, followed by university graduates.

Figure 18: Assessment of the Competencies and Attitudes – “insufficient” – Higher Vocational Centres vs. Universities



Source: GIZ / IS 2009.

Comparing the *different competency categories* the relatively best assessments are given for ‘social competencies’, the worst for ‘methodological competencies’ – irrespective of the educational level of the graduates.

Comparing *vocational with non-vocational graduates*, there are no significant differences in the competency-portfolio of (a) secondary school and IVC graduates and (b) HVC and university graduates. *This is a remarkably positive result for the vocational and technical training system*, although one must admit, that university results are slightly better than HVC results – and the results of IVCs are ambiguous. Positive and negative results here are balanced – which seems to be an indicator, that IVCs are very heterogeneous – and that we find very good as well as very bad IVCs.

Generalising the findings, one can argue, that there is a kind of a *three class system*, best ranking and insofar ‘upper class’ are graduates from HVCs and universities, ‘middle class’ are graduates from IVCs and secondary schools, ‘lower class’ are basic school graduates with the worst ranking results, especially in ‘occupational’ and in ‘methodological’ competencies.

Manpower Situation and the Demand of the Private Companies

a) Assessment of Competencies Required

The most important competencies needed are – of course – occupational competencies (85 %), i.e. the ability to perform professionally on the job. E.g. a surgeon must be able to operate carefully and successfully. These occupational/professional competencies are a necessary, but not a sufficient condition for a ‘good’ employee – so the argument of the human resource managers.

Table 24: Assessment of Importance of Required Competencies as percentage

Competencies	Very important	important	not important	Total
Occupational Competencies	84.8	15.2	0.0	100.0
Social Competencies	63.6	33.3	3.0	100.0
Methodological Competencies	57.6	42.4	0.0	100.0
Entrepreneurial Competencies	72.7	21.2	6.1	100.0

Source: GIZ / IS 2009.

In addition, and coming, second entrepreneurial competencies are a must, (73 %) e.g. proactive thinking, innovative behaviour, taking the initiative, problem-solving. Knowledge-based companies working in a rapidly changing (inter-)national environment only can compete, if they can rely on employees who are active, performance-oriented and innovative.

Social competencies come third (64 %), where the focus is on communication skills, team-work, client-orientation, service-mentality; competencies which are needed to contribute to growth and development of competitive companies.

Methodological competencies, with 58 % in the last place of this ranking, but still demanded by the majority of the respondents, are competencies like analytical thinking, presentation techniques, WORD, EXCEL, organizing meetings or workshops.

b) Problems of Manpower Development

The managers argued that lack of qualified Libyan manpower is the most important obstacle to the growth of their companies – and the Libyan economy as a whole.

The human resource managers agree and emphasise three dimensions:

- Lack of qualified Libyan employees is the main problem of manpower development (76 %),
- low performance orientation (55 %) and low achievement motivation (30 %) of the Libyan workforce is a major constraint for the development of human resources and for the company.

In short: Either Libyan nationals are unavailable (e.g. if they prefer working in the public sector) or not very motivated to work in private companies. These conclusions are – of course – very general. Especially the human resource managers of foreign companies argue that they do not have any problems recruiting highly qualified and highly motivated Libyan graduates, especially females with higher university degrees who have been exposed to an international business culture.

c) Further Manpower Training

Most of the private firms offer further in house training. Most common is training on the job (88 %) which sometimes is a kind of learning-by-doing exercise, but especially in bigger and foreign companies a systematic learning programme is prevailing, guided by senior employees. Training courses in the company are offered in 58 % of the companies. Training out of the company is offered in 42 % of the companies, often organised by private training institutes, consultants and firms. Often these courses are more specific with small

numbers of participants and shorter length. Additionally 39 % of the companies offer further training abroad, sometimes combined with scholarships to achieve an academic degree, often in English speaking countries. The majority of the human resource managers are not in favour of training abroad, fearing, that the employees will stay abroad – or if they come back, they will stay only for a short time with the company and leave for better paid jobs. In addition to this, training abroad is normally very expensive.

Though it is quite normal to ‘adjust’ employees to the specific demands of the workplace, this might be an indication that the competencies of graduates do need upgrading. Of course the target groups, content and quality of further training vary between sectors, branch and size of the company. A high intensity of manpower training especially seems to exist in the oil- and oil dependent industries. International firms do have the comparative advantage that with their manpower development programmes they can rely on their subsidiaries in other oil producing countries.

d) Cooperation between Private Companies and Educational Institutions

Against conventional wisdom, there is a quite remarkable degree of cooperation existing between educational institutions and firms in our sample.

Joint projects between companies and schools/ universities and internships for qualified students are the preferred venues of cooperation, because companies may directly benefit from these models of cooperation. Institutional mechanisms for cooperation between private businesses and educational institutions only exist to a very limited extent, as direct face-to-face-contacts are preferred by both sides. Only few entrepreneurs are teaching in schools and universities, although the students could profit from their practical business knowledge and experiences.

Private businesses are reluctant to support educational institutions with financial funds. They are not prepared to spend ‘good money on bad educational institutions’ (an argument very often heard during the interviews).

Table 25: Existing Cooperation as percentage

Type of Cooperation	Yes
Ensuring of a regular dialogue between business communities	45.5
Establishing of a permanent committee with representatives	30.3
Conducting joint work attitude projects (e.g. on-site-visits, summer schools)	51.5
Developing of common business / education projects (e. g. youth entrepreneurship)	42.4
Launching of financial cooperation models (e. g. Public-Private-Partnerships)	30.3
Providing internships for pupils and graduates	57.6
Providing internships for teachers / professors	33.3
Supporting the development of job oriented curricula	42.4
Supporting educational institutions with financial funds and equipment	24.2
Teaching practical business processes by entrepreneurs	24.2

Source: GIZ / IS 2009.

There are some caveats regarding the interpretation of cooperation between educational institutions and private companies:

- It is open, if these contacts and cooperations are relative regular and the quantitative dimensions (nos. of scholarships) may vary substantially.
- It is open, whether these cooperations are being institutionalised or whether they depend purely on the initiative and existence of certain people.
- The outcome and impact of these cooperations – for the schools, for the companies and for the individuals involved – is unclear, as long as they have not been evaluated.

Development Perspectives and Manpower Problems of the SME-Sector

a) The Role of the SME-Sector

SMEs in this study are the enterprises in the private sector that employ between 2 and 19 persons. In the absence of reliable statistical data it can be assumed that more than 80 % of all enterprises in the Libyan private sector belong to this segment. In other words: The relatively young private sector in Libya is composed of tens of thousands of SMEs and very few enterprises that employ 20 people or more. We could not obtain accurate and reliable statistical data on the contribution of this sector to the GDP or total employment etc. However, it is present and more importantly has a future role as a provider of new job opportunities which is unquestionable.

b) Qualification and Employment Opportunities for Libyan Graduates

At present, most of the employees in the Libyan private sector, including the SME sector, are expatriate workers. The percentage of non-Libyan workers varies according to the business sector. The estimates for the construction industry, technical workshops such as carpentry, metal working, car repair, restaurants etc. are around 80 % and more. In other branches with more “office work” such as travel agencies, large hotels, private clinics etc. the proportion of non-Libyans is estimated at around 50 % to 60 %.

The results of the study show clearly that low qualification and skills, lack of practical experience and inadequate working attitude are among the major factors that let many enterprises – not only SMEs – prefer foreign workers to Libyan job seekers⁶³. In other words, as expressed by a number of the interviewed persons: “Libyan job seekers cannot compete with foreign workers”. The qualifications, skills, experiences, attitude / behaviour, financial expectations etc. of Libyan graduates do not meet the requirements and financial capabilities of the SME as do foreign workers.

c) Recommendations especially for the SME-Sector

A. Recommendations aiming at making the competencies of Libyan job seekers meet the requirements of the SME-entrepreneurs.⁶⁴

Recommendation A1: Plan and implement a comprehensive and far reaching reform of the education system (basic education and vocational training), based on a thorough study and analysis of the present weaknesses.

⁶³ There are also other reasons lying in the comparably higher salary demands of Libyans, certain laws and regulations, Libyan mentality and culture (some interviewed called it „Libyan cultural heritage“).

⁶⁴ There is no need to analyse and repeat the possible causes. This has already been done in the previous chapters.

- This recommendation should be implemented through a close cooperation between the relevant authorities, of the schools, VTCs and representatives of the labour market to ensure that the experiences, expectations and contributions of all important stakeholders are being considered.
- Including the basic education is important because the quality of training in the VTCs depends to a great extent on the knowledge, abilities and attitudes of the students when they accomplish the basic education.
- The private sector should have a particularly strong role in designing and implementing the reform process of the vocational training system to ensure the future orientation of the VTCs towards the needs of the private / SME sector.
- The reform of the VTC sector the following aspects should be included / considered:
- Further training programmes for enhancing the qualification of the management, teachers and trainers in the VTC system.
- Particular emphasis should be put on practice-oriented training, internships in enterprises and foreign languages.
- The private education and training institutions should be given financial incentives (e.g. tax release / tax reduction) to enable them to secure the required quality education and training.

Recommendation A2: Establish a regular bilateral dialogue and interaction between the VTCs and representatives of the private sector to cover some of the following issues:

- Informing the VTCs about the specific manpower needs of certain branches or companies, feedback from the private sector to the schools regarding strengths and weaknesses of the graduates etc.
- Experienced staff in the private sector can offer on a part-time basis lecturing or training in VTCs and compensate for certain gaps within the teaching staff.
- Exchanging information and views about the involvement of women in the labour market and initiating measures for enhancing it.
- Participation of private sector representatives in final examinations at the VTCs.

Recommendation A3: The absence of all kinds of dialogue and interaction between the major stakeholders in the field of human resources development and labour market seems to be “the mother” of most of the problems and deficiencies in this field.

- Establish a regular dialogue mechanism between representatives of the concerned government authorities, of the labour market and the education and training institutions. Through such a Triangle Dialogue the development of human resources as well as the requirements of the labour market should be reviewed and continuously improved while taking into consideration the interests, expectations and difficulties of all relevant stakeholders and securing their contributions and commitments to implement jointly agreed measures.

B. Recommendations aiming at addressing additional factors that make many private SMEs prefer to employ non-Libyans.

What we strongly recommend, is to conduct a comprehensive analysis of the factors that make Libyan employers reluctant to hire Libyan employees and those factors that make them prefer non-Libyan workers.

The analysis should cover in particular the following issues:

- The experiences of different types of employers and those of Libyan and non-Libyan workers in the respective types of enterprises and institutions.
- The labour market laws and regulations, with particular consideration to those which discourage employers from employing Libyan staff (e.g. Tasharukiya law, taxation).
- The salaries and working conditions of foreign workers in Libya and the factors that make them to migrate to and work in Libya.
- Expectations and aspirations of Libyan workers regarding the sectors / branches and types of work they prefer, salaries, working conditions, career development etc.

C. Recommendations aiming at improving the general environment for the development of the private sector / SME

In the long run policies to ensure a sustainable growth of the private / SME sector must be enforced so that additional employment opportunities can be offered to Libyan graduates who will enter the labour market.

Recommendation C1: Develop a long-term SME-development strategy.

What the private sector players and educational institutions urgently need is an official development concept. Such a concept is important for designing action plans, human resources development strategies and policies. It will also give orientation and a kind of “safety net” to the private sector to decide on investments and to realistically calculate involved chances and risks.

Recommendation C2: Review, revise and simplify the laws, rules and procedures related to the private sector (licensing / registration, taxes and duties, red tape etc.).

Recommendation C3: Strengthen the self-help of the private SME-sector (qualify them to carry out their tasks in serving their members and to be a strong defender of the interests of the private / SME sector in front of the government.

A large number – if not the majority – of the SME are not members of the CCI in their respective Shabiya. Even if they were formally members, CCIs normally focus on and cater for medium and large sized enterprises. Therefore, it is recommended to consider – in addition to strengthening the CCI – establishing an “Association of Small Enterprises”⁶⁵ as well as professional associations

⁶⁵ In almost all Arab countries, there are such associations. In Yemen, for example, there are even „Carpenters Association“, „Tailors Association“ etc. In Algeria, there is even a „Ministry for SME Development“.

such as Carpenters Association, Tailors association etc.. Such structures should be assisted in providing services (business development services BDS, training programmes, start-up support) and to give the important small and micro enterprises sector a voice.

Recommendation C4: Ensure access of the SME to Business Development Services (BDS).

The national education system, even if it offers high quality professional training, it does not qualify the graduates to become successful “business men” or “business women”. Therefore, small and medium sized businesses must be offered a variety of services tailored to their needs and at prices that are affordable to the SME community.

Conclusions and General Recommendations by the Private Entrepreneurs

Entrepreneurs and human resource managers from the private business sector do have a very negative picture of the quality of the education system – irrespective of the level of education.

- More than 50 % of the respondents argue, that the competencies acquired during schooling are insufficient. The managers of foreign companies are especially critical of the Libyan education system.
- The private business community is especially critical of weak methodological and entrepreneurial competencies and work attitudes. The majority of graduates are evaluated as being not performance oriented or active, not interested in taking the initiative or responsibility.

- The work attitudes of females and of foreign workers are evaluated as being significantly more positive than those of males.
- There are many unqualified and unmotivated teachers and staff members in schools, vocational centres as well as universities.
- The existing curricula and learning culture in general are not oriented towards the needs of the labour market. Educational institutions are working in an ‘ivory tower’.
- Many vocational centres concentrate on academic and theoretical teaching with limited practical training.
- Institutionalised and systematic cooperation between the private business community and educational institutions is limited.
- Certificates for them are much more important than competencies.

Quotations from the Respondents – What Should Be Done

“The Government has to meet and to cooperate with the private business community. Until now there has been no systematic contact between the Government and the Business Community. (High representative of the General Union of the Chambers of Commerce)

“Much more practise - less academic theory in curricula and teaching. Concerted action private SME-business community, vocational institutions and universities needed. Development of work-place attitude/morale, responsibility, punctuality, performance orientation/reliability needed.” (General Manager of a Libyan SME-company – manufacturing and services)

“Regular dialogue and joint human resource development committees from educational institutions and private business stakeholders.”

(General and Training Manager of a private vocational education centre)

“Bring schools to companies. Incentives for teachers/professors who have projects in common with private firms. Introduce entrepreneurship education and start-up-training in all educational institutions.”

(Libyan entrepreneur – international trade and manufacturing)

“An accreditation system should be applied. A ranking system of all vocational training institutes is necessary.”

(Director of a Public research institute, responsible for human capacity building)

“Introduce entrepreneurship education. Establish a Libyan-Foreign Academy for Entrepreneurship.”

(Director of Manpower in a Libyan Ministry)

“Abolish the streams system in secondary schools. Introduce tax reductions for companies to engage in vocational institutes. Introduce an incentive system and scholarships for pupils in Vocational training.”

(Technical Director of a Joint-Venture, construction)

“Teach people to have a more entrepreneurial spirit instead of just giving them just donations without any sense of duty.”

(General Manager of a foreign company –engineering)

With respect to *general proposals*, the private businessmen recommended:

- Change the education system from a predominantly certificate orientation to a competency orientation.
- Link theoretical knowledge with practical, job-market orientation in the education system.
- Develop or enhance employability in the Libyan society which is based on ‘mental restructuring’ with motivation, enthusiasm for work and achievement orientation as the main values and attitudes.
- Introduce an accreditation system and quality control mechanisms at all levels and stages of the education system.
- Support predominantly vocational and technical training by giving (i) incentives to trainees, (ii) incentives to trainers, (iii) tax exemptions for the private business sector to engage in the vocational centres and institutes.
- Provide clear mechanisms for cooperation between companies and educational institutions to improve and ensure an adequate quality of human resources.

7. The Demand Side (II): Requirements of the Labour Market assessed by the Public Sector

Introduction

Libya's economy maintains some of the highest levels of public sector employment in the world.⁶⁶ Estimates indicate that out of the 1.9 million national labour forces (2008), the government employs up to 70 % of all salaried Libyans.⁶⁷

The specific objectives of the public sector part of the study are:

- the assessment of the competencies by managers of the public education and health institutions and state companies,
- to propose recommendations (i) how to improve the job-market competencies of the graduates in order to prepare them for the public labour market and to reduce unemployment, (ii) how to strengthen the linkages between the schools/vocational centres and the job market.

Most Dynamic Economic Sectors and Obstacles to Development

The majority of public managers believes that the most dynamic sectors until 2015 will be telecommunications, trade, the oil & gas sector and construction (in this order). And a very low growth potential from their point of view does exist in manufacturing, agriculture and health services. These assessments of public sector managers are identical with the answers given by the private business community, and only differ in the positions of telecommunication (private sector no.4) and construction (private sector no. 1).

In terms of telecommunications development Libya is a laggard by international standards. As of 2007, Libya had only a penetration rate of just 15 %. The high ranking of trade is primarily justified with the traditional role of Libya as a traders' nation in the region, and with the opening of the economy after the lifting of sanctions. The important position of the energy sector, justified by export earnings, contributions to the state budget and share in GDP indirectly means that the public sector Managers are sceptical about the so-called diversification strategy of the Government away from oil.

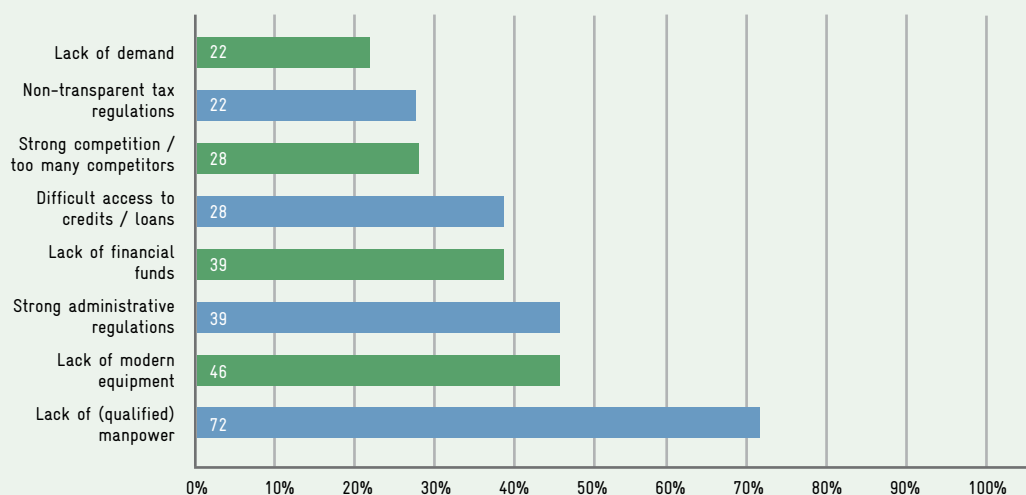
The list of obstacles to development assessed by public managers is impressive. But the vast majority of the respondents agree, that lack of qualified manpower (=72 %) and lack of modern equipment (= 46 %) are the most important difficulties (see Figure 19). Remarkably lack of qualified manpower is assessed by the business sector as no. 1 of the bottlenecks for development as well. Therefore investment in education, improvement of the quality of schools, vocational centres and universities is also strongly recommended by the respondents of the public sector.

General Managers from both sides, the private and the public sector, complain about an existing 'culture of mistrust' between ethnicities, regions, and stakeholders, which seems to be deeply rooted in the history of Libya.

⁶⁶ World Bank: *The Road Not Travelled*. Washington D.C. 2007. P. 226 (table 7.6).

⁶⁷ Economist Intelligence Unit: *Libya Country Profile* 2008. London 2008, p.21.

Figure 19: Main Difficulties of Public Institutions / State Companies



Source: GIZ / IS 2009.

Competency Assessment of School Graduates by Public Managers

On average the public sector rates the competencies of graduates – independent of the educational level – with 25 % being insufficient, 25 % being good and 50 % being sufficient with respect to the requirements of the public sector.

This is an assessment which is much more positive than the graduates themselves assess their compe-

tencies (for details see chapter 5) and as the private business community evaluates the graduates (for details see chapter 6). One possible explanation might be that the public sector work place requirements are not so demanding. Another explanation is, that general managers do have more contacts and experiences with university and higher vocational centre graduates, who generally are assessed more positively compared with basic and secondary school graduates.

Table 26: Assessment of Different Competencies of Libyan Graduates as percentage

Competencies	Good	Satisfactory	Insufficient	Total
Occupational Competencies	24.4	48.9	26.7	100.0
Social Competencies	8.9	77.8	13.3	100.0
Methodological Competencies	15.6	46.7	37.8	100.0
Entrepreneurial Competencies	25.0	52.3	22.7	100.0

Source: GIZ / IS 2009.

Comparing the different competency categories the relatively best assessments are given for 'social competencies' (12 answers 'insufficient'), the worst for 'methodological competencies' (37 answers 'insufficient' with 'occupational competencies' (23 answers 'insufficient') and 'entrepreneurial competencies' (21 answers 'insufficient') in-between. This of course means, that the responsible human resource managers in the public sector are rather critical with the necessary professional competencies of graduates required to perform on the job, but are relatively satisfied with their teamwork and communication skills (see table 26, p. 125). Despite these 'balanced' assessments it should be noticed, that none of the 'good' evaluations are better than 25 %. This is not an impressive result.

Assessing the competencies of graduates with respect to their *highest educational level*, there are some remarkable answers given by the Human

Comparing vocational with non-vocational graduates, there are significant differences both at secondary and at tertiary level. At secondary educational level, the graduates from intermediate vocational centres (12 % 'insufficient') are evaluated much better than those from (general) secondary schools (20 % 'insufficient') – and at tertiary educational level the graduates from higher vocational centres (around 4 % 'insufficient') are rated significantly better than university graduates (nearly 8 %). Although the findings are not representative, this might be a remarkably positive result in favour of vocational training centres in Libya.

With regard to '*occupational competencies*' (which generally are evaluated as weakest) the percentage of 'insufficient' answers decreases with the increase of the educational level (see table 28, p. 127). The majority of graduates from basic schools are rated 'insufficient' (= 75 %) with no one 'good'. Secondary school graduates with 60 % as 'insuffi-

Table 27: Ranking of Different Competencies of Graduates

Competencies	Grade point average	Ranking
Entrepreneurial Competencies	2.00	1
Occupational Competencies	1.97	2
Social Competencies	1.95	3
Methodological Competencies	1.77	4

Source: GIZ / IS 2009.

Resource Managers of the public sector. With regard to the *overall competency-portfolio*, the average 'insufficient' assessments decrease from basic schools (nearly 30 %), over secondary schools (over 20 %), intermediate vocational centres (over 12 %), higher vocational centres (nearly 4 %) to universities (nearly 8 %). Especially the basic and secondary school rankings are remarkably negative, the higher vocational and university rankings are remarkable positive.

cient', intermediate vocational centre leavers with 15 %, higher vocational centre and university graduates with only 5 % as insufficient.

With regard to '*social competencies*' the same correlation holds true. Remarkably there are no 'insufficient' assessments of higher vocational centre and university leavers, and 60 % 'good' rankings of higher vocational graduates.

Table 28: Assessment of the Competencies and Attitudes of Libyan Graduates Related to Educational Level as percentage

Educational Level	Rating	Competencies			
		Occupational	Social	Methodological	Entrepreneurial
Basic School	Good	0.0	11.1	12.0	15.0
	Satisfactory	26.3	59.3	44.0	50.0
	Insufficient	73.7	22.2	44.0	35.0
Secondary School	Good	3.2	6.9	10.7	16.0
	Satisfactory	51.6	79.3	78.6	60.0
	Insufficient	45.2	13.8	10.7	24.0
Intermediate Vocational Centre	Good	9.4	6.9	73.3	33.3
	Satisfactory	75.0	86.2	20.0	90.5
	Insufficient	15.6	6.9	6.7	23.8
Higher Vocational Centre	Good	66.7	56.3	80.0	60.6
	Satisfactory	27.3	43.8	16.7	33.3
	Insufficient	6.1	0.0	3.5	6.1
University	Good	69.7	68.8	36.0	72.7
	Satisfactory	24.2	31.3	40.0	24.2
	Insufficient	6.1	0.0	24.0	3.0

Source: GIZ / IS 2009.

'Methodological competencies' are assessed second weakest with nearly 50 % 'insufficient' of basic school graduates – and a remarkably negative result with respect to university leavers (more than 20 % 'insufficient'). In this category, which refers to problem-solving, analytical thinking etc. the intermediate vocational and especially the higher vocational centres (more than 80 % 'good') perform remarkably well.

With regard to 'entrepreneurial competencies' (e.g. taking initiative, positive work attitudes) the percentage of 'insufficient' answers decreases monotonously with increase of educational level, from 35 % of basic school graduates to less than 5 % amongst university leavers (see table 28, p. 127).

As 'occupational competencies' are the basis of job performance, it is an alarming result, that especially these competencies are assessed negatively by the majority of human resource managers in public institutions and state companies.

With respect to differences in competencies and attitudes between *male and female employees*, the public sector managers do give 'mixed' answers. Half of them argue that women do have more competencies and higher motivation; the other half believes that women do have a lack of skills and abilities, compared with men, and are only interested in getting a salary – without showing much interest in their work.

80 % of public managers assess the competencies of their non-Libyan employees as being much better than those of the Libyan graduates. This is a remarkable finding. Foreign workers often seem to

have more practical experience and better work-place orientation. And – like the private entrepreneurs – the government managers emphasise their experience and that Libyan employees do have an *'attitude problem'*. The negative assessments often come from public managers working in hospitals (criticism of lack of practical experiences of nurses and doctors) and state companies (criticism of white-collar-orientation of Libyan employees).

The public human resource managers do evaluate the competencies of graduates – irrespective of educational level – *much more positively*, than the graduates themselves and the private entrepreneurs. Reasons for these less critical assessments might be (a) the productivity of the employees working in the public sector cannot be directly measured in sales or profits (e.g. the output of a university professor), (b) the public sector does recruit the better qualified graduates from higher institutions.

Manpower Situation and Demand of the Public Institutions and State Companies

The most important competencies needed are 'occupational competencies' (very important: 79 %), i.e. the ability to perform professionally on the job, i.e. a teacher of mathematics must know how to calculate, to multiple, to teach mathematical equations etc. These 'hard' occupational/professional

competencies are a necessary, but not a sufficient condition for being a good employee – so the argument of the managers. In addition, and coming second, 'Entrepreneurial competencies' are needed (very important: 79 %), e.g. taking initiative, being creative and innovative in your job. 'Methodological' competencies come third (very important: 61 %), e.g. problem-solving, analytical thinking, command of presentation techniques, which are needed in demanding work-places like universities and hospitals. 'Social competencies' are in the last place of this ranking (very important: 51 %), but communication skills, teamwork, client orientation are demanded by the majority of the respondents as being important (only 2 % 'not important' answers).

These answers of the respondents working in the public sector are remarkable as normally the Civil Service is not associated with 'soft skills' like entrepreneurial behaviour or social skills like client-orientation – and has the image, to recruit personnel that are security maximising, interested more in job security than in innovative actions and problem solving.

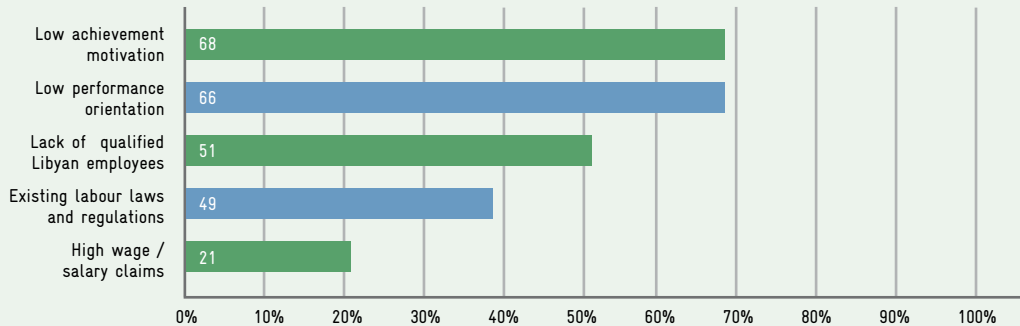
The public managers were asked what are the main difficulties the public sector has to cope with in respect to the human resource development of Libyan employees.

Table 29: Assessment of Importance of Competencies as percentage

Competencies	very important	important	not important	Total
Occupational Competencies	78.7	21.3	0.0	100.0
Social Competencies	51.1	46.8	2.1	100.0
Methodological Competencies	60.9	39.1	0.0	100.0
Entrepreneurial Competencies	78.7	21.3	0.0	100.0

Source: GIZ / IS 2009.

Figure 20: Main Difficulties of Public Institutions



Source: GIZ / IS 2009.

The answers are no surprise. The HRM argue that (i) *low achievement motivation* (68 %) and (ii) *low performance orientation* (66 %) are the most important problems of manpower development in the public sector – and obstacles to offer the necessary high quality services in education and health which are demanded by the public. The *negative work attitudes* – low achievement motivation – are an alarming signal for the performance of the state sector. Very much depends on the competencies and the morale of the civil servants, because the public sector provides with education (from kindergarten up to post-university studies) and health (from rural hospitals to medical research centres) important services which contribute to the development of Libya – or not.

There might be a variety of reasons, why especially positive work attitudes are missing in the government sector (i) job security may be a reason for lower work commitment and motivation, (ii) looking for secure jobs with ‘soft’ working conditions and non-wage benefits irrespective of competencies may reduce motivation, (iii) the intensity of efforts (or non-efforts) does not lead to higher salaries or wages (iv) promotion is not based on performance, but on age, educational level or ‘good’ relations.

It is no secret, that – as in other countries worldwide – these formal criteria of recruitment, selection and promotion of public employees are one side of the coin. The other side is, that informal but powerful relations with the ‘right’ people – e.g. family members, ethnic and regional groups, – seem to play a dominant role in the manpower development of the public sector.

If the public sector wants to keep up with latest developments in knowledge, competencies, and technology a heavy, systematic and permanent investment in human resource development is a prerequisite.

Conclusions and General Recommendations by Public Managers

- (1) Lack of qualified manpower and lack of modern equipment are the most important obstacles to the development of the public sector.
- (2) Only few public institutions offer further training courses based on manpower development plans and individual career planning. If further training is offered, it is often voluntarily and has no consequence for promotion.

- (3) Further training courses do exist, sometimes only limited to a few days per year, participation being voluntary in basic schools (and without consequences for promotion), in other public institutions obligatory and when successful with positive consequences for promotion.
- (4) More than the graduates themselves (for details see chapter 5) and the private business community (see chapter 6) the public sector managers are relatively satisfied with the competencies of their employees.
- (5) The higher the educational level, the better the competency assessment (basic school graduates very low, higher vocational centres university graduates very high evaluated).
- (6) The competencies of the school and university graduates are evaluated, on average 25 % as being 'insufficient', 19 % as being 'good' and 57 % as being 'satisfactory'. This is a nearly balanced result – and it is much better or 'softer' than the assessment of competencies by the graduates and the private business community (more than 50 % 'insufficient').
- (7) Especially unsatisfactory are 'methodological competencies' (38 % 'insufficient') like problem solving and analytical thinking, and 'occupational competencies' (27 % 'insufficient') necessary to perform in the specific profession. Especially good are 'entrepreneurial competencies' (25 % 'good') like taking initiative or being innovative and 'occupational competencies' (24 % 'good').
- (8) The competencies of female employees are controversially evaluated (work place attitudes better than men, qualifications/skills weaker).
- (9) Non-Libyan employees do significantly better than Libyan employees, especially on attitudes like motivation, performance orientation.
- (10) Graduates from intermediate vocational centres are performing much better than secondary school graduates, higher vocational centre graduates slightly better than university leavers.
- (11) The academic/theoretical knowledge taught should be replenished with practical, job- and work-place oriented experiences.
- (12) The introduction/improvement of *foreign languages*, starting with basic schools, and the *development of IT-knowledge* are the most important innovations needed.
- (13) *Problem-solving, analytical thinking* cases and *entrepreneurship education*, educating innovative, proactive behaviour has to be introduced.
- (14) Training of trainers and teachers for interactive, student-centred learning methodology and for the necessary teaching aides and equipment.
- (15) Modern equipment computer cabinets, biology, chemistry and physics labs, libraries etc. and the lack of practical experience of the teachers.
- (16) As educational institutions are suffering from *frequent changes* in the school curricula, these experiments should be slowed down or stopped.

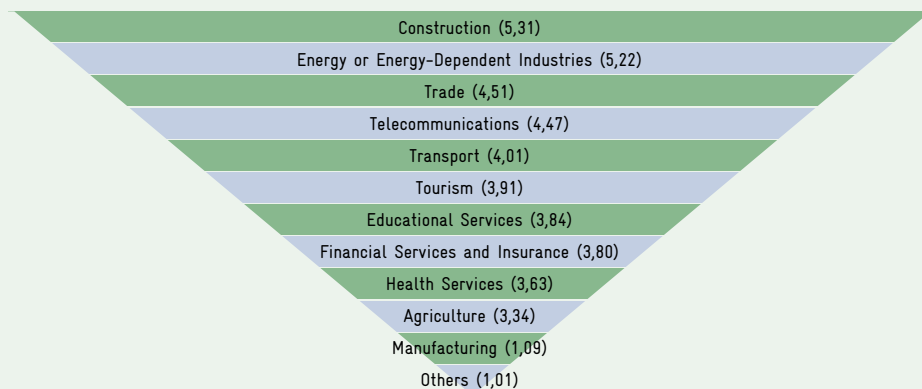
8. Comparative Findings: Manpower Requirements of the Libyan Labour Market

Introduction

After analysing the graduates' self-assessment (=DEMAND side, chapter 5) and the assessment of competencies by managers of the private and the public sector (=SUPPLY side, chapter 6+7) this chapter tries to compare and summarize the most important findings and recommendations. Objectives are (i) to identify common ground and differences in the assessment of the different stakeholder groups, (ii) to discover common recommendations, for an improvement of the linkages between the education system and the labour market.

Some respondents believe that future progress will be attributable to a growing involvement of international investors in strategic sectors of the Libyan economy and to the continuation of the opening to global markets and progress in private sector progress development. The vast majority of private and public managers believe that the most dynamic sectors will continue to be *construction, oil & gas sector and trade*, referring to heavy infrastructure projects (airports, ports, railways, public and private buildings) and the energy resource potential of Libya (including untapped gas resources), where

Figure 21: Ranking of the Most Dynamic Sectors of the Libyan Economy



Source: GIZ / IS 2009.

Predictions of the Most Dynamic Economic Sector

There is a famous saying by Winston Churchill: "As is known the future is unknown". Therefore we limited our forecast to medium term until 2015, which might be outdated by the actual political developments, since beginning of 2011.

they strongly recommend to diversify the economy and to invest in down-stream industries. The high ranking of trade is justified with the opening of the Libyan economy after the lifting of sanctions – and with the traditional role of Libya as a traders' nation between the Arab, the African and the European world. The low ranking of *agriculture and manufacturing* is justified with output con-

straints by indigenous labour. These sectors do have – in the eyes of the respondents – only a limited Libyan manpower potential, because they are associated with hard manual work and ‘dirty hands’.

For the education sector the respondents do predict a certain growth potential for private institutions in specific market segments (foreign languages/IT-skills/management schools), but this might be compensated by a shrinking public education sector.

When comparing the assessments of the private business community and the public sector managers no significant differences exist between the ranking both of the most and of the least dynamic sectors of the Libyan economy.

Obstacles to Development

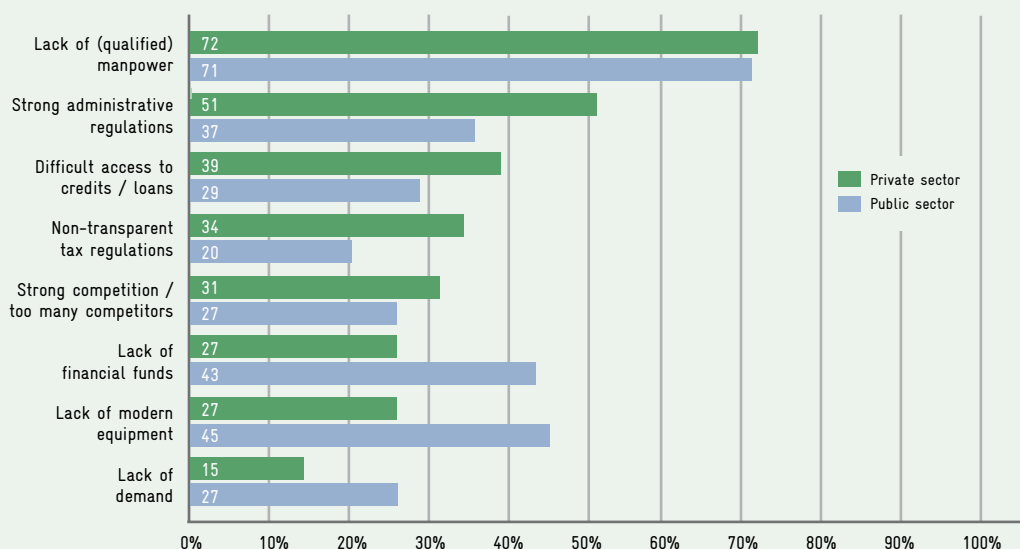
The vast majority of the respondents in our sample agree, that a lack of qualified Libyan human capi-

tal (=72 %) is the most important obstacle to future growth. Remarkably the lack of highly educated and motivated manpower is assessed both by the private (national + foreign) human resource managers and by the public managers as no. 1 of the bottlenecks. Therefore investment in education is strongly recommended (for details see 8.7 and chapter 10).

The public HRMs then enumerate lack of modern equipment (45 %) and lack of financial funds (43 %) as nos. 2 and 3 of the difficulties of their organisations. This seems to be especially relevant for the public education sector and for health clinics and hospitals. Some of the state companies are still suffering from the sanctions and their isolation from world markets.

In comparison private companies have to cope with strong administrative regulations (51 %) as the second most important obstacle to development. There is a general complaint by the private

Figure 22: Main Difficulties of Companies/Institutions – Assessment by HRMs



Source: GIZ / IS 2009.

business community, that the Libyan economy is still dominated by the state, and that the development of the private business sector is impeded or even obstructed by a multitude of laws, regulations and interventions.

Competency Assessment of Graduates

a) General Assessment of Competencies

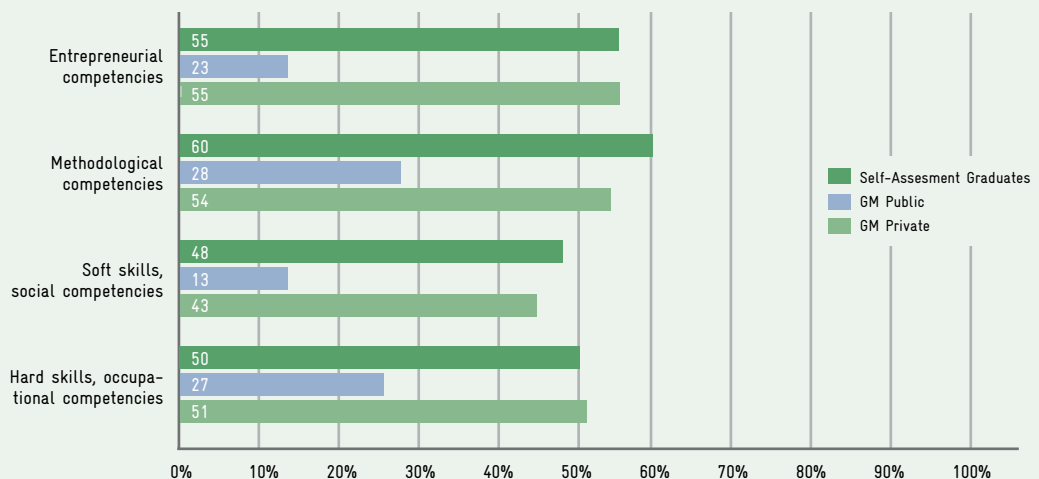
Applying a competency-portfolio approach (which was proposed by human resource managers both of the private and the public sector), four different competencies have been distinguished:

Occupational/professional competencies which are necessary to perform in the respective professions (as a sales manager, accountant, medical doctor, headmaster etc.), entrepreneurial competencies like taking the initiative, performance orientation, achievement motivation, risk taking, social competencies like communication skills, team-work, negotiation skills, methodological competencies like analytical thinking, problem solving, presentation techniques, Excel, Word etc.

A comparative analysis of the competency assessment by the graduates, the private and the public general managers comes to the following results:

- (1) On average the private entrepreneurs and the graduates rate the competencies of graduates – independent of the educational level – as *being insufficient* (more than 50 %). The majority of the respondents assess the education system as producing insufficient results with respect to competencies needed by the labour market. From their experience there is a *significant mismatch* between the competencies/skills/qualifications of the graduates and the demands of the labour market. This is an *alarmingly negative result* – and astonishingly private business people and graduates come to the same critical results.
- (2) In contrast the general managers of the public sector are much ‘softer’ or more balanced in their assessments. They rate the competencies of graduates with ‘only’ 25 % as being ‘insufficient’, (i) the public sector work place require-

Figure 23: Assessment of Competencies – “insufficient”



Source: GIZ / IS 2009.

ments may not be so demanding and (ii) the public sector only takes graduates of higher education institutes.

- (3) There are differences in the assessment between the four competencies. Generally the methodological competencies of graduates like analytical thinking and problem solving are evaluated by all respondent groups as being the weakest and social competencies being the strongest. Entrepreneurial and occupational competencies are evaluated as being 'in-between'.
- (4) The weaknesses in analytical thinking, problem solving and performance orientation are – from the majority of respondents – the result of front-desk-teaching, memorising, learning by heart, theoretical text-book teaching without analysing and discussing problems and practical solutions.
- (5) Especially private Libyan and foreign businessmen complain *negative work attitudes* and behaviour of many Libyan graduates – being more unreliable and passive not motivated – and interested in comfortable office jobs.

b) Differences between Male and Female Graduates

Both private entrepreneurs (= 59 %) and public managers (69 %) believe, that there exist *significant differences in competencies* and work attitudes between male and female employees – in favour of women. Some private businessmen prefer to recruit females, because of their discipline, responsibility, reliability and other positive work attitudes. They are more motivated and faster learners. However, a minority of respondents argued the opposite that women do not take their jobs seriously and have fewer skills. In comparison the public managers are more critical with respect to competencies and attitudes of females. Half of them argue that women are only interested in getting a salary without showing much interest in their work.

c) Differences between Libyan and non-Libyan Employees

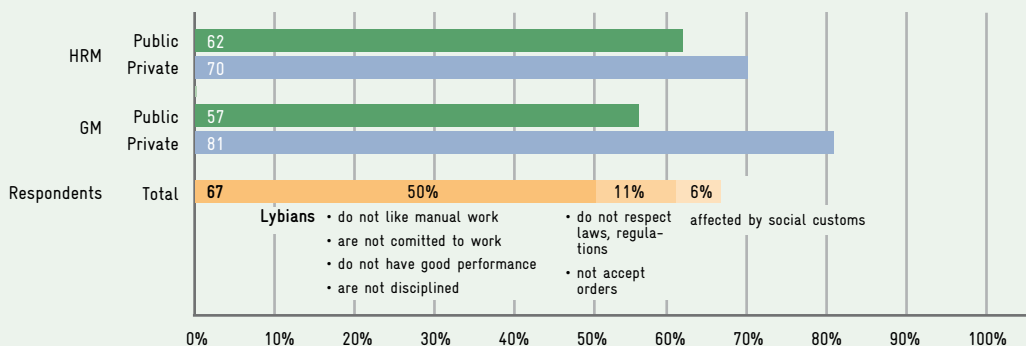
Comparable differences in competencies and work attitudes do exist between Libyan and non-Libyan employees. 80 % of the private businessmen assess the competencies and work attitudes of their non-Libyan employees as being *significantly better* (see figure 24, p.135). Foreign workers often seem to have more professional competencies, more practical work experience and a more positive work attitude like reliability and performance orientation. The respondents emphasise, that many Libyan graduates do have an 'attitude' problem. They are more passive, and less performance oriented than the foreign employees, often interested in 'white-collar'-jobs with few working hours, comfortable workplace conditions, job security and non-wage benefits. Generally the public managers agree with this assessment of their private colleagues, but are 'softer' or more balanced in their assessment.

d) Competency Assessment of Graduates According to Educational Level

In the categories basic/secondary school graduates a relatively high percentage of respondents (depending on private/public sector and competencies between 20-60 %) answered with "not relevant", because in this case the companies / institutions do not employ these graduates. Either the competencies needed at the workplace are too demanding – or the competencies of the graduates are too weak. In addition the public sector on employment policy prefers graduates of tertiary level, e.g. of higher vocational centres or universities (see figure 25, p.135).

When *comparing only the 'good' answers* (see figure 25, p.135), there are differences between the private and the public managers. Generally the private HRM are more critical (their 'good' assessments vary between 10 and 50 %, the average being around 30 %) than the public HRM (their 'good' answers vary between 0 and 80 %, the average being around 34 %). But these differences are not

Figure 24: Differences in Job Performance/Attitudes between Libyans and non-Libyans

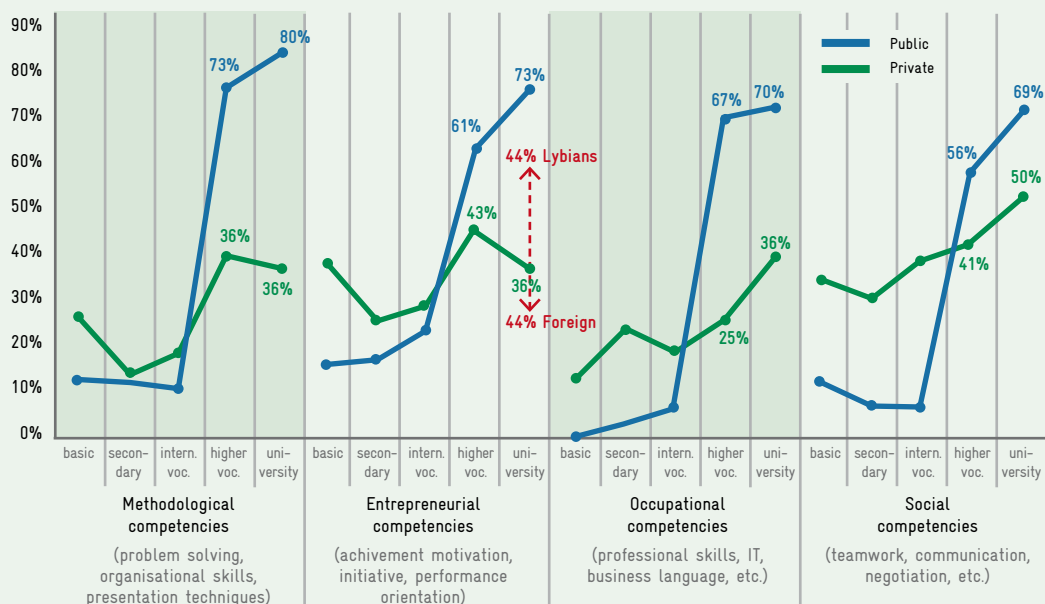


Source: GIZ / IS 2009.

significant. The private managers assess the 'good' competencies as being *relative equal, irrespective of the educational level of graduates* (on average around 30 %); whereas the public HRM evaluate the 'good' competencies of basic and secondary graduates as

very low (on average around 10 %) and the 'good' competencies of tertiary graduates (HVTCs and universities) as very high (on average around 70 %) – irrespective of the competencies evaluated.

Figure 25: HRM Assessment of Competencies of Libyan Graduates by Educational Level Category –category 'good' only



Source: GIZ / IS 2009.

The percentage of 'good' assessments increases with the educational level of graduates (from average 15 % basic education to average 75 % university degree) irrespective of the competencies. These answers are not unusual, because it is the objective of higher formal education that the graduates should have more and better competencies.

Comparing *vocational with non-vocational graduates* the private HRM do not see significant differences of competencies for secondary educational level ('good' answers around 25 %). This is a relative 'success' for intermediate vocational centres – because normally the argument is brought forward, that vocational education is a 'second best option' and for pupils with lower marks in basic education only. Competencies of graduates of higher vocational centres and of university graduates do not differ significantly. The public HRMs do rank secondary school leavers significantly lower (average of 'good' answers around 10 %) than private HRMs – and assess the intermediate vocational centre leavers equally. On tertiary educational level, the competencies of HVC leavers (average of 'good' answers around 65 %) and those of university graduates (average of 'good' answers around 73 %) are in favour of general university leavers. One explanation might be that the civil service in Libya – as in other MENA countries – is still in favour of university degrees and certificates.

Comparing the *different competency categories*, methodological competencies are ranked as no. 2 (average of 'good' answers around 32 %), entrepreneurial competencies as no. 3 (average of 'good' answers around 28 %), occupational/professional competencies as no. 4 (average of 'good' answers around 27 %) and social competencies as no. 1 (average of 'good' answers around 35 %). These results do not differ significantly. *As 'occupational' competencies are the basis of job performance, it is an alarming finding, that especially these competencies are assessed negatively* – followed by 'entrepreneurial' competencies – which are an indication of low

work attitudes like taking initiative and performance orientation.

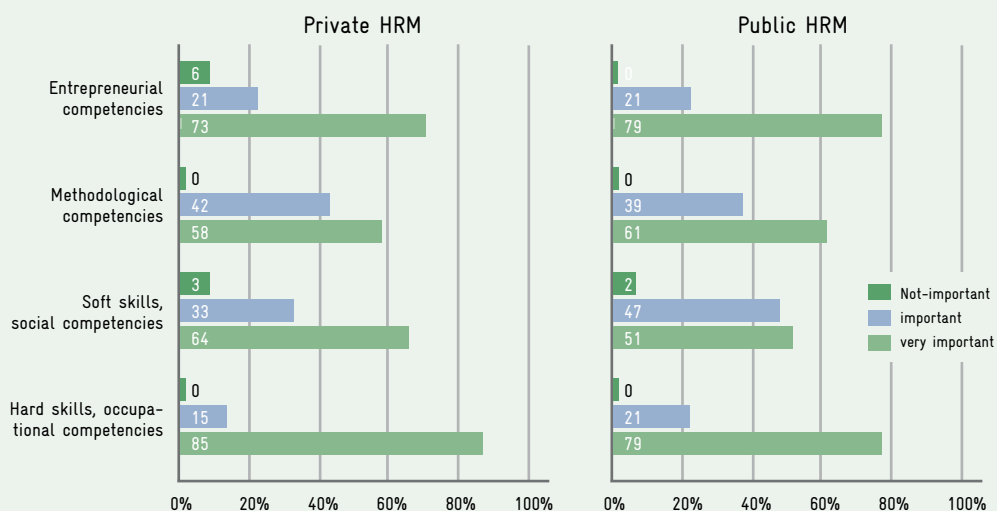
Within each competency category the percentage of 'good' assessments increases with the educational level.

Manpower Requirements of Private Companies and the Public Sector

Private and public human resource managers have been asked, what kind of competencies are needed for growth and development of their institutions.

- (1) The most important competencies needed are *occupational competencies* ('very important': private HRM 85 %; public HRM 79 %), i.e. the capability to perform professionally in the job, e.g. a surgeon must be capable to operate carefully and successfully. These occupational competencies (often called: 'hard' competencies or skills) are a necessary, but not a sufficient condition to be a 'good' employee. In addition 3 'soft' competencies are necessary to perform successfully.
- (2) The mastery of *entrepreneurial competencies* is necessary, e.g. taking initiative, being innovative, achievement and performance oriented comes second: ('very important': Private HRM 73 %; Public HRM even 79 %).
- (3) *Social competencies* – where the focus is on communication- and negotiation skills, teamwork etc. – are required as of third importance ('very important': Private HRM 64 %; Public HRM 51 %).
- (4) *Methodological competencies* like analytical thinking, problem solving, IT-skills, foreign languages are in the last place of this ranking ('very important': Private HRM 58 %; Public HRM: 61 %) – but are still demanded by the majority of the respondents.

Figure 26: Assessment of Needed Competencies of Libyan Graduates by HRM



Source: GIZ / IS 2009.

These findings are in many aspects remarkable. The assessment of the respondents from the private and the public sector are in the most important points identical. Both agree that in addition to 'hard' professional competencies 'soft' competencies are required by the labour market. From the perspective and experience of the private and the public HRM 'entrepreneurial' competencies are the most important of the 'soft' skills.

Problems of Manpower Development

The private managers argue, that the 'lack of qualified Libyan employees' (76 %) is their main manpower problem, followed by 'low performance orientation' (55 %) and 'low achievement motivation' of their Libyan employees (30 %) – whereas the public managers argue that 'low achievement motivation' (68 %) is the greatest manpower development problem in the public sector, followed by 'low performance orientation' (66 %). 'Lack of qualified Libyan manpower' only comes third.

In other words: As private companies usually apply strict recruitment and selection criteria, getting qualified Libyan manpower is their main problem. This might be one of the reasons, why they often rely on foreign workers. The public sector however – which in the past absorbed graduates like a 'sponge' – does not have the problem of recruiting manpower, but has the problem of getting motivated and performance oriented personnel. The negative work attitudes prevailing in the government sector are an alarming signal for the effectiveness, progress and modernisation of important public services like health and education.

Cooperation between Private Companies, the Public Sector and Educational

Institutions

Against conventional wisdom, there is a quite remarkable degree of cooperation that exists between educational institutions, the private and the public sector.

There is a clear ranking in contacts and cooperation between the private business/public institution sector and educational institutions in Libya.

- (1) Joint projects between institutions and schools/universities and internships for qualified students are the preferred venues of cooperation, because companies and institutions may benefit directly from these models of cooperation.
- (2) Institutional mechanism of cooperation between private businesses + public institutions and educational institutions only exist to a very limited extent, as direct face-to-face-contacts are being preferred on both sides.
- (3) Only a few managers are teaching in schools and universities, although the students could profit from their practical business knowledge and experience. (i) The educational personnel often are not interested in having entrepreneurial 'competitors' in the classroom, (ii) for many entrepreneurs/ managers 'time is money', e.g. the opportunity costs of teaching are high, (iii) there are no funds available in schools to pay at least for transport and allowances and (iv) there exist legal restrictions.
- (4) Private businesses + public institutions are reluctant to support educational institutions with financial funds, especially SME entrepreneurs argue, they cannot afford to support the education system with funds, or they are not prepared to spend 'good money on bad educational institutions' (an argument very often heard during the interviews.)

Table 30: Types of Cooperation as percentage

Type of Cooperation	Private HRM Yes	Public HRM Yes
providing internships for pupils and graduates	57.6	55.6
conducting joint work attitude projects (e.g. on-site-visits)	51.5	61.4
ensuring of a regular dialogue between business communities	45.5	41.9
developing of common business / education projects	42.4	47.6
supporting the development of job oriented curricula	42.4	41.9
providing internships for teachers / professors	33.3	71.1
establishing of a permanent committee with representatives	30.3	38.6
launching of financial cooperation models (e. g. Public-Private-Partnerships)	30.3	27.0
supporting educational institutions with financial funds and equipment	24.2	47.7
teaching practical business processes by entrepreneurs	24.2	25.6

Source: GIZ / IS 2009.

There are – of course – some caveats regarding the interpretation of cooperation between educational institutions and private companies + public institutions:

- It is open, if these contacts and cooperations are relatively regular – and the quantitative dimensions (nos. of scholarships) may vary substantially.
- It is open, whether these cooperations are being institutionalised or whether they depend on the initiative and existence of certain persons.
- The outcome and impact of these cooperations – for the schools, for the companies + institutions and for the individuals involved – is unclear, as long as they have not been evaluated.

Their long-term proposals and visions for a new paradigm can be summarised in five general demands for change of the education system:

- (1) From employment to employability
- (2) From certificates to competencies
- (3) From theory to practice
- (4) From quantity to quality
- (5) From learning to performing

The implementation of these demands would mean a new paradigm of learning, schooling and educating for Libya.

9. The Way Ahead: A New Role for Education in the Libyan Economy

Changes for Development

Our study demonstrates that important gains in education have been realised in Libya: nearly all children benefit from compulsory schooling; quite a few have opportunities to continue their formal education. Access and equity of schooling in Libya are by international comparison above average of MENA. Libya boasts the highest literacy and educational enrolment rates in North Africa. Unusually for an Arab state, in Libya, female students tend to have more schooling than their male contemporaries. The study also documents numerous past and ongoing education reform attempts in Libya, from curricula reforms to introduction of streams and extension of vocational education. Accumulated human capital and investment in education has served economic development and social progress to a certain extent.

However, the study also comes to the conclusion that the quality of education – measured in competencies and qualifications acquired by graduates – is much less impressive. In fact, Libya has produced fewer educational outcomes than many competitors as measured in qualitative terms – by the competencies, skills and performance of graduates. This deficiency threatens the future competitiveness of Libya, which requires a different set of educational outcomes. Apart from expanding access to education and deepening the skill base of the economy, Libya must address deep concerns about the quality of educational output and competency mismatches as they affect the labour market. Evidence on mismatches comes from our surveys of private companies and public institutions compared with the educational profiles of graduates. Graduates, entrepreneurs and human resource managers regularly cite the lack of competencies as

an important constraint to hiring Libyan graduates. Lack of qualified and motivated Libyan manpower is the most important obstacle to future growth and development. An important gap exists between what kind of skills and competencies the Libyan education system currently produces and what the country needs to achieve for its development objectives. Therefore the co-existence of unemployment and over-employment (absorbed by imported foreign labour) is a typical feature of the Libyan labour market.

If meeting the requirements of the labour market is an important objective, the education system must focus on the development of a competency-portfolio which makes the Libyan youth ‘fit’ for the competitive and knowledge-driven world of the future. Today, it is not longer sufficient to enrol eligible children in schools, and to educate skills with conventional didactics; issues of quality and meeting the changing requirements of the labour market constitute pressing challenges for the education system of a Libya.

Employability and the Requirements of the Labour Market

To be able to compete in the labour market graduates are expected to develop a *portfolio of competencies* with the objective to obtain employability. “Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment” (for details see chapter 2). This means in concrete terms to develop the necessary competencies (i) to start, (ii) to continue and (iii) to change employment, either self-employment or dependent employment. The command of a portfolio of competencies (occupational/ social/ methodological/ entrepreneurial

competencies) is a prerequisite that enables citizens to develop employability – and to better adapt to an evolving labour market in a knowledge-driven economy. According to the latest international research especially the need for 'soft' competencies and working attitudes, like teamwork, achievement motivation, performance orientation, entrepreneurial thinking and innovative behaviour, has grown, while the need to conduct more routine occupational tasks has declined.

Consequently innovative educational systems implemented worldwide have emphasised two main concepts (i) the introduction of student-centred learning and (ii) the adaptation of competency-based education, introducing instead of teaching merely cognitive and manual skills the development of a competency-portfolio.

Implementing these pedagogical innovations requires a new configuration of education objectives and organisation, performance-based incentives and avenues for public accountability. Educating – or better developing – a competency-portfolio to enhance employability of graduates, requires fundamental changes of the education system. In the long run these changes seem to be without an alternative. Each of them is a necessary, but not a sufficient condition for progress and prosperity. All of them together constitute a new paradigm for education in Libya.

From Quantity to Quality

Libya boasts the highest literacy and educational enrolment rates in North Africa. Meanwhile, the combined primary, secondary and tertiary enrolment rate in 2004 was 94 %, higher than in any of Libya's Arab neighbouring countries.⁶⁸ Also unusually for an Arab state, in Libya, female students tend to have more schooling than their male contemporaries – ten years for girls and eight years for

boys. High priority was given to enrolment rates. Whether children were learning garnered less attention.

Quantity of education, measured by access and equality, is not the problem of the Libyan school system. However, the main outcome of the many experiments and reforms has been poor educational standards. This, coupled with the security of government jobs for most Libyans and the availability of migrant workers for difficult or hard work, has led to poor Libyan labour competitiveness. Great numbers of students are acquiring more education, but it is often translated into higher unemployment or lower wages. According to the Global Competitiveness Report 2010-2011 the quality of Libya's education system is ranked 121 out of 139 countries, thus belonging to the 10 % of countries worldwide with the poorest quality of education.⁶⁹

The qualitative deficiencies in Libya's educational system have – according to the respondents of our Labour Market Study – many causes: (i) The rigid, centralised management of education and vocational training have resulted in inflexible educational and training systems that operate in isolation from their economic environment. (ii) There are few performance indicators for schooling and thus, little measurement of school quality. (iii) Incentives for educational reform have been limited. (iv) Teacher promotion is normally based on seniority and not on performance. (v) Further in-service-training of the teaching staff is limited. (vi) Moral often is low and corruption high.

From a labour market perspective attention has to be given to the *quality of education* ensuring that students are motivated and actually learn. There is strong evidence that the competencies and cognitive skills of the population, rather than mere

⁶⁸ Economist Intelligence Unit: *Libya Country Profile 2008*. London 2008, p. 11.

⁶⁹ World Economic Forum: *The Global Competitiveness Report 2010-2011*, Geneva 2010, p. 217. Additional indicators are: Quality of primary education rank 128, quality of math and science education rank 113, quality of management schools rank 137, internet access in schools rank 129, local availability of research and training services rank 134 and extent of staff training rank 110.

school enrolment, are positively related to individual earnings, to the distribution of income, and to economic growth. It is of course necessary to combine the two separate views of the educational challenges for Libya – the quantity and quality of education.

How to improve the quality of education is discussed by the graduates, the entrepreneurs and public managers of our study very controversially. But – in accordance with international research – two answers were given: (i) Overwhelming evidence shows that just increasing public spending per student or simple physical expansion of facilities within the current education system is unlikely to improve students' performance substantially. (ii) A necessary reform of the education system has to focus on the quality of teachers and learning environment. The most consistent finding across a wide range of studies is that the quality of the teacher in the classroom is one of the most important attributes of schools. Good teachers, defined in terms of student learning and performance, are able to move the achievement of their students far ahead of those of poor teachers.⁷⁰

From Certificates to Competencies

In our study the majority of respondents demand a change of education in the broadest sense of the word: from a certificate-oriented to a competency-oriented education. Especially the private business community is not so much interested in the formal certificates of employees, but in their effective competencies and attitudes. Since education is the main source of knowledge creation, the task is clear: the education system has to be changed to deliver the new competencies, skills and expertise necessary to excel in a more competitive international environment. For a country to be competitive, the education system must be capable of providing at least three types of services.

First, it must be able to produce the broadest possible human capital base. If knowledge is increasingly recognised as a key to competitiveness, it follows, that the more people who have a fundamental level of competencies, the better.

Second, if a country's knowledge endowment is to be ever elastic and growing then an individual's knowledge base must also continuously change and expand.⁷¹ According to the latest international research the need for "*expert thinking*" and "*complex competency-portfolios*" has grown, while the need to conduct more routine tasks has declined in most countries.

Third, the *kind of competencies* needed have changed, with a growing emphasis on so-called *key-competencies* (or transversal competencies) that enable citizens to better adapt to an evolving labour market, economy and society.

With respect to the range of subjects, literacy and numeracy remain the foundations of all education systems: in a knowledge economy, the ability to communicate and analyse requires a solid mastery of these basic competencies. However, the fundamental subjects now also include the teaching of science, foreign languages and IT-skills. Similarly, there is a growing demand for acquiring more than one foreign language in a more globalised world. To meet this demand, many countries and schools are adopting school curricula with teaching of at least two foreign languages.⁷² The acquisition of another language clearly expands the opportunity for an individual to work with international languages in an internationalised environment.

⁷⁰ Unfortunately the identification of good teachers has been complicated by the fact that simple measures commonly used – such as teacher experience, teacher education or even meeting the required standard for certification – are not closely correlated with the actual ability in the classroom.

⁷¹ Levy, F.; Murnane, R. J.: *The New Division of Labor: How Computers Are Creating the Next New Job Market*. Princeton 2004.

⁷² World Bank: *Expanding Opportunities and Building Competencies for Young People: A New Agenda for Secondary Education*, Washington D.C. 2005.

As for *key – or transversal competencies* – pedagogical reforms implemented worldwide have emphasised two main ideas (a) the introduction of student-centred learning and (b) the adaptation of key-competency based education, introducing instead of teaching merely cognitive and manual skills a *competency-portfolio*, consisting of (i) *occupational competencies* (literacy, numeracy, foreign languages, cognitive and manual skills), (ii) *social competencies* (complex communication, teamwork, net-working) (iii) *methodological competencies* (time-management, presentation techniques, information and communication technologies (I & T)), and – last, but not least – so-called *entrepreneurial competencies*, including values and attitudes like achievement motivation, risk-taking, creative thinking and innovative behaviour.

The command of this portfolio of competencies is a necessary and a sufficient condition for individuals, regions and nations to compete successfully in a world, in which the creation and dissemination of competency-based knowledge is the engine of economic development and social progress. This of course does not mean that certificates in the future will be irrelevant or superfluous, but they have to be the expression of containing competencies. On the contrary, in this case they will become attractive for degrees and credentials with international recognition.

From Learning to Performing

In our study another important demand by the involved respondents is a change from academic, theoretical learning of textbook knowledge to the development of work-place related practical skills and competencies. The education system – sometimes criticised as being an ‘ivory tower’, separated from economy and society – has to open up or at least to become more receptive to the challenges of a globalising economy and the requirements of a modern labour market.

At present, there exist many obstacles to integrating practical knowledge into theoretical classroom teaching: (i) lack of modern equipment like computer cabinets, biology, chemistry and physics laboratories, that practical experimental knowledge cannot be introduced, (ii) lack of practical knowledge of teachers, instructors and professors, who often did not have the opportunity during their own education to learn with modern equipment, (iii) the existing curricula does not include practical cases and experimental knowledge, putting emphasis on academic knowledge – which often is faster and easier to acquire, (iv) formal and legal restrictions can be serious obstacles to open the education system up to the requirements of the economy. On-site-visits to classes in oil companies, industrial businesses or banks are often forbidden (on both sides). Also to invite engineers, bank managers and entrepreneurs to lecture in schools is not allowed.

Despite these problems – three proposals of the respondents should be realised:

- (1) Theoretical knowledge and methodological competencies like analytical thinking and problem solving are necessary conditions for graduates in the demanding workplaces of the Libyan economy. However, they are insufficient. In addition to academic knowledge practical job-oriented competencies have to be developed at schools. The sooner, the better.
- (2) In a knowledge-based economy, technical and vocational educational roles are changing quickly. Traditionally in the past vocational training has been the ‘poor cousin’ of the education family – or the second-best-option for pupils, parents, teachers and politicians. In the future rather than being the dead-end repository of school failure, TVET is becoming the entry door to better-paid jobs and the revolving door for competency renewal and re-qualification. Despite the on-going-discussion about ‘to

vocationalise or not-vocationalise' (G. Psacharopolous) general education, there is a growing consensus about the integration of technical/vocational and general education, which means introducing more academic subjects into vocational education and more practical subjects in general education.

- (3) The expansion and improvement of vocational centres with innovative courses, subjects and methods is justified by an increasing demand of the graduates – and by the positive outcomes of our study. In many cases the HVC-graduates can compete with university and even post-university graduates. The establishment of new vocational centres and innovative academies should be supported by the business community and there should be close international cooperation and accreditation by international bodies. A requirement is the establishment of a quality assurance system with a well-established international qualification framework, assessment system and an educational monitoring and information system.

From Teacher-Led to Student-Centred Learning

The development of labour market related competencies, based on practical experiments and experiences, leads to a 'Copernican' turnaround in pedagogy. With the "radical reduction of complexity"⁷³ we can ideally distinguish two competing approaches of learning: (i) the container education and (ii) the evolutionary education approach.

Conventional container education is based on an input-output-learning paradigm. Learning is based on input logic. If the superior, 'all-knowing' teachers/professors 'fill up' students with more academic container knowledge the output (knowledge/skills/qualifications) will increase. The pre-

dominant teaching method is front-desk teaching. The learner is blocked in a passive-receptive role of consuming knowledge.

The evolutionary education approach is demand- or needs oriented. It is based on a constructivist, interactive learning paradigm and aims at activating the motivation, interests and curiosity of students. The strengthening of competencies is considered as a crucial output which enhances problem-solving, analytical thinking and self-awareness. Consequently, the teachers' role is limited to being a moderator of the learning process. Attitudes like achievement motivation and performance orientation demanded by the majority of the Libyan entrepreneurs and public managers are developed by action learning methods. Instead of the traditional container learning approach 'tell-know-do' the message of action learning is 'do-know-tell'.

There is no fit-for-all solution. In some cases – depending on the subject, the students and the learning environment – conventional education does have comparative advantages. And the proposed change from teacher-led to student-centred learning is a long term reform concept, because it means a change in attitudes and learning cultures. In the last decades, several MENA countries adopted pedagogical reforms with many of the characteristics discussed above, e.g. student-centred learning, competency-based curricula and focus on problem-solving and analytical thinking. Despite these efforts, there is little empirical evidence of a significant shift away from a conventional model of pedagogy. The main activities in the classrooms in MENA countries continue to be copying from the blackboard, writing and listening to the teachers.⁷⁴ Group work, creative thinking, and proactive learning are rare. Frontal teaching is still a dominant feature, even in countries that have introduced student-centred pedagogy.⁷⁵

⁷³ Luhmann, N.: *Social Systems*, Stanford 1995, p. 13.

⁷⁴ El-Haichour, H.: *Education Reform in MENA Countries*, unpublished background paper.

⁷⁵ Valverde, G.A.; Schmidt, W.H.; Bianchi, L.J.: *An Explanatory Analysis of the Content and Expectations for Student Performance in Selected Mathematics and Biology-Leaving Examinations from the Middle East and North Africa*. Paper prepared for the World Bank, Washington D.C. 1995.

10. Recommendations: Competencies for Development – A New Role for Education in Libya

It is necessary to realise at the beginning of this chapter, that (i) to serve the demands of the economy is an important, but not the only objective of education, (ii) education starts in families, not in schools, and is heavily influenced by peer groups and mass media, (iii) issues of work attitudes, morale and motivation can only to a limited extent be influenced by the education system, (iv) important developments – globalisation, technological change and unemployment – are completely out of the hands of the education sector. It is also important to be realistic about what can be achieved in the short-term and what will take longer.⁷⁶

In addition to recommendations for necessary long-term changes, presented at the end of chapters 5-9, the *respondents* of the study propose several short – to medium term measures. Their objectives are (i) to improve the linkage between the education system and the employment system, (ii) to reduce the mismatch between the competencies produced by the education system and the requirements of the labour market, (iii) to reduce the unemployment of graduates and (iv) to make a productive use of the growing Libyan manpower.

There are – of course – differences in priorities, perspective and content of the proposals. They have been dealt with in the specific chapters of this study. This chapter refers to the most important *common recommendations and proposals*.

With respect to *general* recommendations, the respondents (school graduates, private Libyan and foreign entrepreneurs and public managers) recommended:

- Develop or enhance employability in the Libyan society which is based on 'mental restructuring' with motivation, enthusiasm for work and achievement orientation as the main values and attitudes.
- Change the education system from a predominantly certificate orientation to a competency orientation.
- Link theoretical knowledge with practical, job-market orientation in the education system.
- Support predominantly vocational and technical training by giving (i) incentives to trainees, (ii) incentives to trainers, (iii) tax exemptions for the private business sector to engage in the vocational centres and institutes.
- Expose Libyan pupils and students to international learning and achievement standards, e.g. through introducing foreign languages from basic schools onwards.
- Introduce an accreditation system and quality control mechanisms at all levels and stages of the education system.

⁷⁶ Jones, A.: *Career aspirations of Libyan basic and secondary education students and parents*. Tripoli 2009. p. 75.

- Provide clear mechanisms for cooperation between companies and educational institutions to improve and ensure the adequate quality of human resource development.

From an analytical point of view, the *specific short-to medium term* recommendations are divided into three parts A-C:

- A. Recommendations focusing on the improvement of the labour-market orientation of the education system.
- B. Recommendations focusing on the improvement of cooperation between the private business sector and the educational institutions.
- C. Recommendations focusing on the contributions of the business community and the public sector to manpower development.

The recommendations are ranked by the respondents from most important to less important.

A. Labour-Market Orientation of the Education System

To improve the labour-market orientation of the Libyan education system (basic and secondary education, vocational training and universities) the respondents recommend – six measures/interventions in the following order:

- A.1 Labour market orientation of curricula
- A.2 More and better language education and IT-competencies
- A.3 Improving the business orientation of teachers/instructors and professors
- A.4 Better laboratories/libraries/computer cabinets
- A.5 Improving work attitudes by learning adequate behaviour

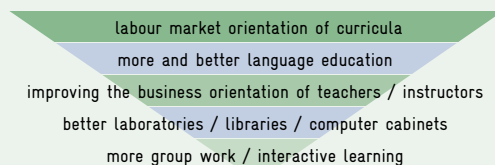
Recommendation A.1 Curricula should comprise a labour market orientation

Possible projects and programmes:

- Practical business cases,
- workplace related projects,
- obligatory company visits,
- work experience programmes,
- career fairs,
- aspects of career curriculum,
- nomination of career advisor/career coaches.

Figure 27: Ranking of Recommendations with Respect to Educational Institutions by Private Businessmen and Public Managers

Most important
↓
Less important



Source: GIZ / IS 2009.

The combination of theoretical knowledge with practical labour-market and work-place experiences is the most important step to open up the education system to the economy. This proposal is interpreted as a 'horizontal' measure; preferably the curricula of all streams, topics and subjects being taught should include obligatory labour-market components. This has fundamental consequences for pedagogic and didactic concepts and measures, for teaching aids, for extra-curricula activities and – for the competencies and attitudes of the teachers and professors. The nomination of a career advisor (either a teacher or a business representative) aims at easing the transition from school to work, enhancing employability.

Recommendation A.2 Improvement of foreign language and IT-competencies

Possible projects and programmes:

- Bilingual lessons,
- native speakers as teachers/trainers,
- IT-instructors from private companies,
- blended learning courses,
- TV-language programmes.

More and better language education + practical IT-training – starting preferably in kindergarten and basic schools– is ranked second. This means in addition to English at least a second language (French, Spanish, Italian, German) and advanced IT-skills. Excellent English knowledge and the command of computer skills as the basis of the global communication and business society is demanded as a 'must'. Only with these competencies will the Libyan economy be capable to compete successfully in international markets. Modern information and technology systems are based on English, and the same is true for banking, insurance, tourism, energy, health and trade. In addition advanced Business English should be taught in all secondary schools and vocational centres.

Recommendation A.3 Improvement of the practical business and labour market orientation of teachers/instructors/professors

Possible projects and programmes:

- team-teaching teachers + managers,
- further training courses with practical business cases and experiments,
- internships in private companies/public institutions.

Many teachers and instructors already have private business experience in their second jobs or have an entrepreneurial family background. Not only the exposure to private business activities, to deal with production processes, clients and technological innovations, but in addition introduction of entrepreneurship education (how to start, run and take over a business in schools and universities) is being demanded.

Recommendation A.4 More and better labs/libraries and computer cabinets

Possible projects and programmes:

- Practical workplaces per pupil/student with modern equipped laboratories for biology, chemistry, physics ,
- foreign language centres,
- computer cabinets, Internet access,
- modern libraries,
- further teacher training with labs/computer cabinets.

Missing, out-dated or unused educational and technical equipment at schools, vocational centres and universities are often the reason for missing practical labour-market orientation of teaching and teaching staff. If students of medicine, engineering, information, life science, economics do not have the opportunity to learn with advanced practical equipment they cannot meet the requirements of the labour market or work as teachers and instructors. Therefore the public sector man-

agers propose more and better educational equipment as no. 2 on their list. Existing equipment is not used because the teachers/instructors do not know (or are not motivated) how to use them.

Recommendation A.5 Improving work attitudes by developing adequate behaviour

Possible projects and programmes:

- Combination of paid work and school/university education,
- part-time work in government jobs,
- dual education (apprenticeships + attending schools),
- internships in private companies,
- school firms/university companies (cafeterias, travel agencies, tourist guides, computer firms),
- basic and secondary entrepreneurship education for business start-ups.

(i) The best way to learn values and attitudes demanded by the labour market is to expose students to real working situations in real profit-oriented companies (which is done in the German dual system of vocational education), (ii) only if the teachers are positive role models, the work attitudes of pupils are going to change, (iii) in addition, a new subject: entrepreneurship education is proposed (which some educational institutions already offer) preparing students for business start-ups or for running real market-oriented school/university firms. Subjects like: market analysis, management skills and business plan writing – taught by entrepreneurs / human resource managers / private consultants - prepare for entrepreneurial competencies and self-employment and are a good means of improving positive work attitudes and developing the necessary competency portfolio.

Recommendation A.6 Group work and interactive learning

Possible projects and programmes:

- work-place related projects (development of new products + technologies),
- action-learning projects (opinion polls, surveys, market analysis),
- new media learning (camcorder, computer, Internet),
- team building processes via school events, sports activities.

These recommendations are for the respondents of least importance to increasing the job-market orientation of educational institutions, because (i) group work and interactive learning are *general* didactical tools not specifically related to the work-place orientation of educational institutions, (ii) being products of an education system, which is focused on front-desk-teaching, memorising and teachers' centred pedagogy, many respondents do not have experience with alternative teaching methods. The foreign entrepreneurs plead for a significantly different ranking of labour-market orientation of the education system. (i) More and better foreign languages, (ii) improving the work attitudes by learning adequate behaviour, (iii) more group work and interactive learning, (iv) improving the business orientation of teachers and instructors, (v) labour market orientation of curricula and (vi) better laboratories/libraries and computer cabinets.

B. Improvement of 'Triangle' Cooperation between the Private Business Sector, Public Institutions and the Educational Sector

A second mechanism for reducing the mismatch between the education system and the requirements of the labour market is closer 'triangle' cooperation between educational institutions, the private business sector and public institutions.

- B.1 Ensuring a regular dialogue between business communities and educational institutions
- B.2 Conducting joint work attitude projects
- B.3 Developing common business/education projects
- B.4 Establishing a permanent committee with representatives of business organisations and educational institutions
- B.5 Launching financial cooperation models

Recommendation B.1 Ensuring a regular dialogue between representatives of the business community and of the education system

Possible mechanisms and programmes:

- Regular meetings at a national level (representatives of the Union of Chamber of Commerce + members of the Ministry of Education etc.),
- Regular meetings at a Shabiya level (representatives of local Chambers of Commerce and Shabiya representatives of the Ministry of Education etc.),
- Regular meetings of regional/local businessmen and headmasters/teachers, parents of schools/vocational centres.

A *regular dialogue* is proposed by the respondents as the *most important mechanism for cooperation*. Representatives from the business community complain that 'the' education system is working in an 'ivory tower', not being interested in cooperating with private businesses. On the other hand some private entrepreneurs are reluctant to enter a regular dialogue with members of the education system, who from their point of view represent 'the state', that is (over-)regulating and impeding the development of private companies. Although there exist various contacts between private companies and local or regional educational institutions, they very often are a) not regular, depending very often on the initiative of single personalities, and b) not representative, outcomes are not definite for both sides. Some minimum requirements of a regular, sustainable and result-oriented dialogue could be: (i) the dialogue must be voluntary, open and based on trust, (ii) the members from both sides must be legitimised and representative of their respective 'clientele', (iii) on both sides representatives of the legitimised stakeholders must be included.

Recommendation B. 2 Conducting joint work attitude projects

Possible projects and programmes:

- Organisation of 'open days' in private companies and public institutions,
- joint job factories,
- team teaching projects (teachers + managers),
- on-site-visits of firms and institutions,
- part-time work of pupils + students in companies,
- work-place-oriented projects.

Conducting joint work attitude projects refers to the school and company level with the objective, to open schools for the demands of private firms – and to open private firms for the demands of schools. Many examples of this kind of cooperation already exist, starting from on-site-visits. Of advantage would be some – tested and evaluated – model projects of this kind of work attitude projects at different school/university levels in different Shabiyas.

Recommendation B. 3 Developing common business/education projects

Possible projects and programmes:

- joint teams (teachers+ human resource managers) in curriculum development,
- development of work-place related teaching aides/equipment,
- joint examination boards for labour market subjects/topics,
- BA+ MA thesis related to company developments,
- introduction of an entrepreneurship education stream in secondary schools and vocational centres,
- introduction of entrepreneurship education modules in BA study courses,
- establishment of an MA study course ‘entrepreneurship promotion’ at universities.

Common business + educational projects as the third most important field of cooperation refer to joint curriculum+ teaching aides + equipment projects. The most ambitious and far-reaching project is the introduction of ‘entrepreneurship education’ and ‘start-up-business-projects at all educational levels – in line with the international discussion (UNESCO/ILO) and initiatives in other MENA-countries (Tunisia, Jordan) and in

Libya (some vocational training centres and universities). Prerequisites seem to be: (i) A joint responsibility of stakeholders from educational institutions and the private business community, (ii) tested and evaluated model projects at all educational levels, (iii) team-teaching of teachers/professors and entrepreneurs, (iv) action-learning methodology, (v) development of business plans and (vi) start-up tools.

Recommendation B. 4 The establishment of a permanent joint committee

Possible mechanisms and programmes:

- Establishment of a committee “Human Resource Development” in the Union of Chamber of Commerce,
- establishment of a committee “School-to-Work” with representatives from the business community and the Ministry of Education,
- establishment of career advisors (either teachers or representatives of the chamber of commerce),
- establishment of advisers/coaches/ consultants “school-to-work”.

The establishment of permanent joint committees with different responsibilities and at different levels with representatives from both sides is only recommended as fourth out of five measures. The respondents propose a learning-by-doing approach, starting with a regular dialogue (see recommendation B. 1) joint projects at the school/company level and only if they are successful, the establishment of joint committees. In other words: The establishment of a permanent committee should not be the prerequisite for dialogue and (in) formal cooperation but its result.

Recommendation B. 5 Launching of financial cooperation projects

Possible mechanisms and programmes:

- Development of Public-Private-Partnership models,
- permanent financial contributions to selected schools/VTCs/universities,
- sponsoring of selected school/VTC/university projects,
- sponsoring of specific school/VTC/university events,
- financial support for educational equipment (labs, libraries).

Private businessmen are rather reluctant with regard to financial cooperation projects between educational institutions and the private sector (rank 5 out of 5). The reasons given are: (i) It is the obligation of the government to finance educational institutions (ii) the situation especially of SMEs does not allow them to contribute for educational development. (iii) The outcomes of educational institutions at present are so insufficient, that it is a waste of money to support them. (iv) The entrepreneurs refer instead to intensive further in-house-training in their companies. Predominantly foreign firms are inclined to enter financial cooperation on a limited scale, if they do have 'the say', in recruitment of teachers, students, in the content of curricula and in evaluation and quality control.

C. Contributions of the Business Community and Public Institutions

The improvement of linkages between the education sector and the labour market is also the obligation of the business community + the public institutions, because qualified manpower is the most important resource to be (inter-) nationally competitive and to decrease costs.

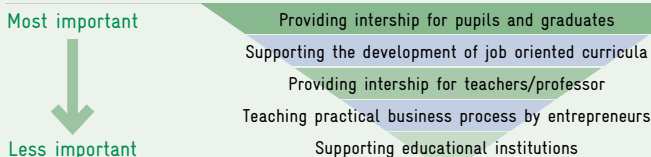
- C.1 Providing internships for pupils and graduates
- C.2 Supporting the development of job oriented curricula
- C.3 Providing internships for teachers/pupils
- C.4 Teaching practical business processes by entrepreneurs
- C.5 Supporting educational institutions

Recommendation C.1 Providing internships for pupils/students and graduates

Possible mechanisms and programmes:

- short term internships for specific skills/qualifications of individuals (acquiring new IT-software skills, bookkeeping programmes, distributional channels),
- short term internships for specific tasks/projects of pupils and students teams,
- medium term internships for individuals (advanced Business English courses),
- medium term internships for company-related projects (BA+MA thesis),
- long-term internships for company-related tasks (BA or MA study course abroad).

Figure 28: Business Community Contributions for Improving the Qualifications and Attitudes of the Graduates of Educational Institutions – Ranking



Source: GIZ / IS 2009.

Providing internships is already quite common and the entrepreneurs and public managers are prepared to offer in future more internships, as it creates a win-win-situation. Until now the number of internships is rather limited – and only confined to the specific needs of the prevailing company. To increase substantially the numbers of internships there should be introduced an incentive system, e.g. tax reductions or appreciations for companies giving internships. Sometimes companies hesitate to invest more into scholarships, because (i) scholarships abroad are very expensive, and sometime used by the recipients to stay in the foreign country, (ii) local scholarships are very often used for direct job-and workplace ‘hopping’ to competitor firms (which is quite usual in Libya), e.g. the investment in manpower development via internships is not only lost – it sometimes even strengthens competitors. Those companies and institutions prepared to invest in large-scale internship programmes must have a certain guarantee that they profit from these investments in manpower development.

Recommendation C.2 Supporting the development of job oriented curricula

Possible projects and programmes:

- Joint teams (teachers, entrepreneurs, human resource managers) responsible for curriculum developments,
- introduction of practical business cases in relevant curricula,
- workplace related examples in relevant curricula,
- practical experiments,
- Work-place and job-related teaching aides.

Supporting the development of job and workplace oriented curricula is interpreted as a ‘horizontal’ measure, preferably in all streams, topics and subjects being taught. There are significant differences between Libyan and foreign managers. The Libyan entrepreneurs rank the job orientation of curricula no. 2, the foreign businessmen rank 4. The combination of theoretical knowledge with practical work-place experiences is seen as an important step to open the education system to the requirements of the labour market. The contributions of stakeholders of the business community could be (i) to join the committees responsible for curriculum development at all educational levels, (ii) to develop together with the teachers/ instructors and professors business case studies for specific sectors/ branches/ products/ innovations of the Libyan economy.

Recommendation C.3 Providing internships for teachers and professors

Possible mechanisms and programmes:

- internships for specific company-related manpower development projects,
- short term internships for specific joint team projects (teachers + human resource managers),
- medium term internships for teachers/professors to conduct firm in-house-training,
- secondment of teachers/constructors for further qualification (BA or MA thesis).

Providing internships for teachers and professors is proposed as a good measure to open educational institutions to the requirements of the business sector. This is an innovative concept proposed by the respondents (i) to familiarise teaching staff with the demands of work places in a growing international environment, i.e. in banks, insurance enterprises, (inter-)national oil companies, IT firms etc., (ii) to familiarise them with the work place demands of public institutions and state

companies. The underlying idea is that teachers, instructors and professors (a) may become members of education-business networks, (b) can apply their knowledge while conducting in-house-training for the companies/institutions and (c) can enrich their theoretical knowledge with business cases, which they can 'bring back' to their educational institutions. Of course the legal and financial consequences of these proposals have to be discussed and solved in joint committees.

Recommendation C.4 Teaching practical business processes by entrepreneurs

Possible mechanisms and programmes:

- Guest-lecturing of entrepreneurs + human resource managers,
- part-time teaching of labour-market related practical cases+ experiments (oil production technology, marketing cases, IT-software application),
- team-teaching of entrepreneurs + HRM with teachers/professors to inject practical experiences,
- teaching and demonstrating as 'role models' in entrepreneurship education,
- developing and implementing modules of entrepreneurship education, business-plan writing.

Teaching practical business processes by entrepreneurs is ranked by Libyan entrepreneurs as no. 4, by foreign entrepreneurs no. 2. The opening of schools and universities for external teaching staff with practical business experiences is especially in vocational training centres and higher vocational centres quite common. Instructors and trainers who are working in private companies teach as part-time lecturers in educational institutions specific subjects – and by doing this, bring practical business know-how to students. The transfer of these experiences ('lessons learned') to other educational institutions can substantially contribute

to a labour-market orientation of these institutions. Foreign managers are very often in favour of these external part-time or 'guest'-lecturer/instructor models, because they are quite popular in their home-countries as a cost-saving model of bringing more practical workplace experiences to the classroom and they can use the opportunity to recruit qualified and motivated students as staff. Problems can be (i) trainer/instructors from private businesses are not available, (ii) because of their opportunity costs they demand relatively high fees for teaching in educational institutions and (iii) school teachers and professors are disinterested in bringing private trainer/instructors to the classroom, sometimes fearing competition.

Recommendation C .5 Supporting educational institutions

Possible mechanisms and programmes:

- Introduction of Public-Private-Partnerships (PPP),
- sponsoring of specific schools/VTCs/universities with financial means,
- contributing to acquisition of educational equipment, laboratories, computer cabinets,
- contributing to internships for pupils/students, teachers/professors,
- contributing to common curriculum-projects.

Supporting educational institutions with cash is the least important recommendation by the private business community (Libyan entrepreneurs rank no. 4; foreign entrepreneurs rank 5). To a certain extent Libyan entrepreneurs are prepared to support selected educational institutions with material/equipment etc. However, most businessmen are very reluctant to support schools and universities with financial resources.

Summing up

The three most important recommendations are:

A. with regard to educational institutions:

- A.1: Labour market orientation of curricula/ entrepreneurship education
- A.2: More and better foreign language education + IT-skills
- A.3: Improving the business orientation of teachers / instructors / professors

B. with regard to contributions the cooperation between educational institutions and the Libyan private business community + public sector institutions:

- B.1: Ensuring a regular dialogue between educational institutions and the business community + public sector institutions
- B.2: Conducting joint work attitude projects
- B.3: Developing common business/education projects

C. with regard to the private business community + public institutions

- C.1: Providing internships for pupils and graduates
- C.2: Supporting the development of job oriented curricula
- C.3: Providing internships for teachers/instructors and professors

Few of these recommendations are entirely new. Some of the recommendations are already being implemented in some innovative institutions. Others are so far-reaching, that at present they are beyond the horizon of both – the educational and the business community.

As is normal for heterogeneous societies, different opinions exist between the respondents about priorities, speed and implementation of the proposed measures. But there seems to be a common understanding, that there is no realistic alternative.

In contrast to many benevolent proposals from outsiders, how to improve the linkage between the education sector and the labour market, the recommendations of our study have an invaluable advantage: *They have been developed by practitioners, stakeholders and clients* who are Libyans or who are familiar with the Libyan education system and labour market requirements, with history, attitudes and culture. In this sense the proposals of the Labour Market Study are ownership-proposals.

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Acronyms

CEDEFOP	European Centre for the Development of Vocational Training
CVT	Continuing vocational training
EU	European Union
GDP	Gross domestic product
GER	Gross enrolment rate
GNI	Gross national income
GPI	Gender parity index
GIZ	German Technical Cooperation International Services
HVC	Higher Vocational Centre
ICT	Information and communication technology
ILO	International Labour Organization
IMF	International Monetary Fund
IT	Information technology
IVC	Intermediate Vocational Centre
MENA	Middle East and North Africa
NER	Net enrolment rate
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
SME	Small and medium enterprise
SOE	State-owned enterprise
TIMSS	Trends in International Math and Science Study
TVET	Technical and vocational education and training
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
USAID	United States Agency for International Development
VET	Vocational education and training
VTC	Vocational Training Centre
WTO	World Trade Organization



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