

WORKSHOP 3

Quality Education and Competencies for life

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BACKGROUND PAPER

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Background paper to Workshop 3: *Quality Education and Competencies for Life*

Competencies for Life: Some Implications for Education

by

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The global economy represents new challenges to Education all over the world. Governments and education systems are expected to deliver “quality education” and “competencies for life” to all youth. This document investigates the content of these central concepts and discusses some possible implications for education systems. The balance between general and vocational education, and challenges to the developing countries are given particular consideration, as well as the continued need for international co-operation to reduce the educational divide. Observations, interpretations and statements in the document are those of the author and do not necessarily reflect the views of the IBE and UNESCO.

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1. Significance of Education¹ in the Globalised Economy

Human resources are the most valuable assets of any country. Hence every nation, no matter the economic situation or political leadership, has a formal education system of schools and other training institutions that organise and coordinate the transfer of values and attitudes, norms, knowledge and skills to new population groups and new generations.² Education has its roots in the past and is meant to equip the individual learners for future life in the family, local community and production. It is preparing for a variety of human activities and situations and plays a central role in sustaining as well as changing communities and cultures.

Developments in technologies and markets over the last decades have put new pressures on governments to strengthen the systematic build-up of knowledge and skills in the population. Education is an increasingly important means for countries to prosper in a competitive world economy. To the individual, education is often the key to a better life.³ Nations failing to provide education to its population risk staying in or falling into poverty: education is a necessary, although not sufficient condition for prosperity of individuals and nations. Yet, as the global economic divide is growing, the number of illiterates in the world exceeds 800 million and an estimated one in every five children are deprived access to even the most basic education (<http://www.un.org/millenniumgoals/brochure.htm>). Whereas enrolment in upper secondary education in rich countries often exceeds 90%, it is down to 5 - 20% in many poor countries (<http://www.unesco.org/education/information/wer/WEBtables/Ind6web.xls>).⁴

This concern is at the heart of recent global initiatives like “Education For All (EFA)” and the “UN Millennium Goals”.⁵ Both interventions are stressing that access to basic education is a human right and that universal access to basic education will be an effective means to reduce poverty and generally improve social and economic conditions of individuals and nations.

The globalised, knowledge-based economy is gradually changing the general international discourse and political priorities in education. Investments by governments and industries in education are constantly growing, and so are demands of proven return on the investments. There is an increasing need for frequent updating of the economically active population, or even retraining, to keep up with technological and market changes. A high frequency in innovations is necessary to maintain the wealth in high-cost countries where production to a high degree is based on brainpower. Mobility in education and labour markets is increasing. Qualifications and competencies acquired outside the formal education system, as well as unconventional combinations of formal and experience-based qualifications, are becoming more important: What individuals actually know and are able to do, can be more important to employers – and to the individuals themselves if they have to manage without a job - than

¹ In this document, the term “Education” must be understood as “Education and Training”, comprising also the transfer of technical, vocational and other types of practical and specialised skills.

² Crucial education also takes place outside the formal education system: in the family, among friends, at the workplace and in a variety of other public and private settings. This document, however, is mainly concerned with formal education.

³ These are general observations. However, it is not difficult to find examples of societies where people with high education have to struggle for daily survival, whilst people without much formal education prosper.

Prosperity is not only a matter of *level* but even of *type* of education. Often there is a mismatch between the qualification needs of employers and those possessed by jobseekers.

⁴ We are of course aware that there are big differences within as well as between rich countries, and within and between poor countries. For the purpose of this document, we nevertheless think that the use of these rough categories might serve its purpose.

⁵ See <http://www.unesco.org/education/efa/index.shtml> and <http://www.un.org/millenniumgoals/>, respectively.

what diplomas tell about their formal education, which could be outdated. This explains the increased attention given to questions of validating non-formal and informal learning and recognition of education between countries.

Surfacing in most debates on education are demands that governments and education systems should deliver “Quality education” and “Competencies for Life” to all young people. What do these demands imply? How could we respond to them? Which are the challenges in meeting the demands?

2. Quality in Education – a matter of Relevance

The Dakar goals 2 and 6 under the EFA initiative⁶ underline that universal education provided by governments should be of good quality. None would disagree to this. But what does it mean? Do we all have the same understanding of the concept? Is the “quality” concept universal in the sense that it should be understood in the same way everywhere, in every country? Could one say that an education system is of high quality if its capacity and outreach is limited and large groups of young people are denied access, i.e. should the quality concept even include a quantitative element? Provided that education is actually available: what does it imply to deliver high quality education?

The purpose of formal education is always to promote learning, the process internal to the pupil or student leading to the actual acquirement of new values, norms, knowledge and skills.⁷ A basic feature of quality education hence must be that it induces learning. Whether or not learning actually will take place, depends on several conditions, partly interconnected:

- **General learner motivation:** Evidently, learner motivation is a prerequisite for successful education. Assumably, most participants in formal education have a general motivation for learning, since this is the sole expressed intention of formal education.⁸
- **Teacher motivation and ability:** Successful education hangs on the ability of the teacher to organise teaching and present the knowledge and skills to be transferred in a way that stimulates the learners’ motivation for the subject and makes it possible for the student to understand and learn. This has to do with the teacher’s professional enthusiasm and proficiency, and teaching method qualifications as well as access to necessary time, appropriate organisational framework and good instructional equipment and materials.
- **Content of education must be relevant:** The learner should be able to see the potential usefulness, the relevance of what is taught, observed, experienced. If the content is perceived irrelevant to the learners and their context, this will be demotivating and hence undermine learning effects.⁹

⁶ Ref. http://www.unesco.org/education/efa/ed_for_all/background/background_documents.shtml

⁷ Learning is often intentional, but can even be accidental based on observations and experiences, and it takes place in more or less planned and organised settings. See e.g. Colardyn & Bjørnavold, 2003 for a typology on formal, non-formal and informal learning.

⁸ Lack of alternatives to school, or intentions to build or maintain friendships, are alternative explanations for school attendance.

⁹ Exceptions occur, of course: some learners have a particular appetite for learning and a curiosity beyond the average. To these learners, the question of relevance is in itself irrelevant.

It would be difficult to argue that maritime education provided to the youth in Nepal represents high quality education, even if it strictly follows high international standards. Similarly, most people would find it highly questionable if social studies in primary school in Latin America were (primarily) concerned with history and current political and socio-cultural conditions in Europe, rather than in their own country and region.

Quality education must be related to certain *explicit, measurable standards* and criteria. In general, these can be related to education *content, processes* and *outcome*. Traditionally, subject curricula tend to focus on teaching activities and topics rather than on the learning objectives. This is now changing, however. Many countries around the world have already, or are in the process of changing curricula focusing more on learning outcomes.¹⁰

Education is supposed to be a resource and useful to the learners. Hence the content and standards must be related to their situation and the context of provision. Education should take into account the needs and interests of the learner and key actors, availability of natural resources, production structure and cultural and political traditions and practices in the area. Standards expressing learning targets, as well as modes of delivery should be decided accordingly.¹¹

This understanding of “quality education” as a relativistic concept means that content, mode of delivery and learning targets of quality education will vary by geography, by socio-cultural factors and over time. Universal global standards for the individual subjects are thus difficult to define, due to the great differences between countries.¹² This does *not* imply, however, that countries in different part of the world could and should not learn from each other, even if they differ in culture, climate and education and technology levels. On the contrary: through the exchange of ideas and practical experiences on content and learning objectives, organization and teaching methods between countries, one often finds elements adaptable to own context. One possible scenario is that the increasing internationalisation will work towards greater uniformity of education worldwide.

Regarding the setting of national quality standards in formal education, it is difficult to see alternatives to current practice in most countries; public (national) authorities decide them. However, most countries could benefit from founding them on a more thorough and repeated

¹⁰ Whereas subject-related learning targets are often easily defined and linked to measurable criteria, those related to personal attitudes and social abilities are more complicated in these respects. The development of such skills and qualifications are hence in most cases related to instructional processes.

¹¹ An increasing number of countries are encouraging local adaptation of curricula to ensure relevance, e.g. countries in East and South-East Asia, cfr.

<http://www.unescobkk.org/ips/ebooks/documents/buildingcurriculum/pt3.pdf>

¹² Even within the EU, with strong political commitments and relative homogeneity, it has been difficult to agree on common standards that would facilitate labour mobility between the member states according to the vision of a single labour market. The issue is central in the Bologna (higher education) and Copenhagen (vocational education and training) processes. See: http://europa.eu.int/comm/education/policies/pol/policy_en.html. In 2000, the EU Education Ministers agreed on 16 quality indicators related to *Learner attainment* (mathematics, reading, science, foreign languages, ICT, civics and learning to learn); *Success and transition* (dropout, completion of upper secondary education, participation in tertiary education); *Monitoring of school education* (parental participation, evaluation and steering of school education); and *Resources and structures* (educational expenditures per student, education and training of teachers, participation in pre-primary education, number of students per computer)

needs-assessments of learners, communities, producers in various sectors and other stakeholders supposed to benefit from the education. At the same time, in a dynamic world national curricula should be flexible in the sense that they could easily be adapted to local conditions and respond to changes in technologies and markets.

Relevant standards and curricula are major instruments for planning, implementation and assessment of education. But it is *the actual performance* by the education institutions that decides the learning outcomes. In order to facilitate and support quality delivery, an important task for the education authorities is to allocate and organise relevant resources and other framework conditions for the successful operation of the education institutions, including training and updating of teachers and management staff. Regular monitoring and counseling of the education institutions should be organised by the authorities in co-operation with other stakeholders.

3. From Knowledge and Skills to Competencies

The “Competency” concept is often used in general and political debates on education. A growing number of countries are introducing “competencies-based” curricula. How could and should we understand this concept?

In the general debate, “competency” has sometimes been used simply to substitute for well-known concepts like “knowledge” and “skills”. To have a competency simply means that a person has acquired the knowledge and skills described in the curricula, and that the learner can demonstrate this in a test. With this understanding, a competencies-based curriculum in general states which specific performances the learner should be able to conduct after completion of training.

Several EU countries understand competency as “a capacity to apply knowledge and skills” (Eurydice 2002) and hence emphasise the *ability* to actively make use of learning achievements in new situations. A recent IBE/UNESCO publication finds that the most frequent understanding of competencies is that of a coherent articulation of knowledge, skills, values and attitudes applied in daily-life situations (Rychen & Tiana 2004). A planned Norwegian reform of basic education - primary, junior secondary and senior secondary education – is in line with the latter understanding:

"Competence may be defined as being able to use knowledge and skills efficiently and creatively in interpersonal situations – situations that include interacting with other people in social contexts as well as in vocational or subject-specific situations. Competence comes equally much from attitudes and values as from skills and knowledge." (NOU 2003:16)

According to this understanding of the concept, “competence” covers both the *will and ability* of the learner to use the acquired qualifications as the basis for action in new situations. “Competence refers ... to the foundation for creativity, ethical considerations and exercising judgement ...” (Rye & Thorbjørnsen 2004)

Introduction of competency objectives according to the latter understanding of the concept will necessarily have implications for the design and content of curricula, as well as for teaching methods and assessment (see below).

“Competencies for Life” could be understood in (at least) two different ways, partly overlapping:

- Competencies that will be useful *for the lifetime* of the learner and even for lifelong and life-wide learning in a rapidly changing world. This understanding hence emphasises the durability and a sort of *universal relevance* of these competencies.
- Competencies that *prepare for living* in a broad sense, including staying alive, covering basic needs and in general support social functionality in the various situations and contexts that most individuals will experience. With this understanding, *functions or effects* of these competencies are in focus.

In these two perspectives, which are the challenges of an education system intending to equip all youth with “competencies for life” and be instrumental for nations in their struggle for economic and social development and prosperity?

4. Lifelong Competencies and Competencies for Lifelong Learning

Important features of the globalised, continuously changing economy are that knowledge and skills are being developed and applied in new ways. Trade is expanding worldwide, increasing competitive demands on producers. Product cycles are shorter and the need for innovation greater. The global knowledge economy is transforming the demands of the labor market in economies throughout the world. It is also placing new demands on individuals, who need more skills and knowledge to be able to function in their daily lives.

Within this context, which competencies do one need to live a life in the knowledge economy? High quality education should provide the learners with durable values, attitudes, knowledge, skills and competencies that are meant to be of use even under new conditions and demands. Are there competencies that are universal and should be promoted or nurtured / encouraged everywhere?

Considerable efforts are being made to identify and describe so-called “Key (or Core or Basic) Competencies” that should be the learning objectives of every education system. In the European debates, key competencies are those “regarded as essential in order to participate effectively in society. They help learners to improve their learning and performance in education, work and life.” (Eurydice 2002). Social and personal competencies, as well as learning competencies are emphasised in all national documents studied as fundamental in order to avert social exclusion.

Basic skills are skills that are necessary underpinnings for learning and development in education, in working life and in society in general. These skills are independent of education subjects, but they are developed through working with the subjects and are vital prerequisites for developing new competencies.

“Young people need basic skills if school is to be able to pass on our cultural heritage and give the pupils a good general education. A liberally educated human being has developed insight into the complexity of society and how to be a well functioning adult, as well as an understanding of the relationship between the individual and others and between individuals

and society. Basic skills may be understood in the same way as the literacy concept, and thus as fundamental tools for every form of learning.” (Rye and Torbjørnsen 2004)

Distinctions are often made between generic / general skills and competencies, on the one side, and subject-related skills and competencies on the other. General basic skills and competencies are developed within many subjects and are necessary for learning in several subjects and contexts, while subject-specific ones are best developed via one particular subject. There are different views among researchers and countries as regards which ones should be considered the key skills and competencies – general, subject-specific or both.

The various key skills and competencies are furthermore distinguished in terms of whether they are personal, inter-personal or physical. Hence the basic skills and key competencies could be organised according to the table below:¹³

	Personal (cognitive, psychosocial)	Interpersonal	Physical / practical
Generic			
Subject-related			

Differences in findings and descriptions seem to be more related to terminology than to substance, however. A closer look reveals a general agreement that the following skills and competencies should be regarded essential (Eurydice 2002; EU 2004; MOER 2004; WB 2003; Rye & Torbjørnsen 2004):

Mastery of the mother tongue and preferably other languages, in oral and written form, and *communication* skills are generally considered of paramount importance for effective functioning in all areas of society. Communication refers to the active utilisation of language and the ability to structure and express one’s own thoughts, listen to others and comprehend.

Working with others covers not only the capacity to cooperate with other people but also the ability to organise one’s own activities in a way that facilitates interpersonal relationships.

Problem solving is a key competency that refers to the capacity to analyse problems, plan solutions, take decisions and evaluate the outcome.

Numeracy implies a basic understanding of mathematical concepts and ability to use them..

Basic understanding of natural sciences.

The use of information and communication technology (ICT) is a basic skill applicable to work, learning activities and communication in general.

Learning competency implies that the learner is able to organise and regulate his own learning, to use time efficiently, to solve problems, to plan, carry out, evaluate, reflect and acquire new knowledge and skills.

¹³ In 1996 the UNESCO International Commission on Education for the Twenty-first Century argued that education throughout life has four pillars: *learning to know*, *learning to do*, *learning to live together* and *learning to be* (Delors 1996). The two first of these will relate to the first column.

Basic skills, e.g. ICT skills, are general and they are developed through active utilisation in various subjects. Learners acquire *subject competencies*, e.g. in civics or English, through the active work with that particular subject. *Key competencies*, e.g. the ability to work with others or to organise own learning, are gradually developed on the basis of subject competencies and active work with applying the basic skills in new situations and contexts.

5. Implications and Challenges to All Countries

Curricula, delivery and monitoring of education

International debates and developments indicate that development of basic skills and key competencies by the learners in the future will be the overall objective of education.¹⁴ Which will be the related implications to governments and education institutions in terms of curricula, educational instruction and assessment?

Basic skills are supposed to be fundamental and general tools for different forms of learning and form the basis for developing key competencies. Their application could and should not be related to one subject only. Hence, objectives for the development of basic skills should be integrated in the learning objectives of individual subjects at all levels. Personal development of the learners will be resulting from the active work in individual subjects: “The subject and the pupils' involvement with them will be the meeting point between basic skills and personal, cultural and moral growth.” (Rye and Torbjørnsen 2004)

Key competencies include attitudes, knowledge and skills that are not specific to particular subjects. Hence the learning activities connected to their development must be adapted to the various subjects and levels. For example, in each subject, the student is expected to build not only subject competence, but even general learning competency by learning to set targets, to plan the learning activities, to carry out the learning activities and to assess his/her academic performance, achievements and products. Student cooperation will be a natural part of this process.

In order to comply with principles of equality and relevance in education, framework conditions should allow and promote adaptation by education institutions to learner's needs and local conditions, e.g. by choice of instructional approach, cooperation with external partners etc. If learners are to develop specific basic skills and key competencies, they should be placed in situations where they are given relevant challenges: “learning by doing” and personal experience will promote goal achievement.¹⁵

Subject curricula in education systems today are often criticised for being overloaded with specified subject elements, reducing flexibility and delaying appropriate responses to new demands. By specifying too much detailed knowledge there is little time for practice, reflection and development. Furthermore, they often direct the modes of instruction and leave little room for necessary local adaptation.

¹⁴ It must be underlined, however, that both general education and basic skills are “crucial elements in various social settings, and vital for a democratic social development” (Rye and Torbjørnsen 2004).

¹⁵ Whereas the principle of “learning by doing” has been generally recognised as *the superior* way of learning, new research in neuroscience, knowledge management and learning theory indicates that: “real learning ONLY takes place in and through action”, and that there is no distinction between “knowing what” and “knowing how”. Prof. Andrew Gonczi, University of Technology, Sydney
<http://acde.edu.au/assets/pdf/campusreview7mar02.pdf>

A possible solution to the problem of overloaded and rigid subject curricula is to shift focus from directing the learning process, to the objective of learning basic skills and subject competencies. Such subject curricula will not lay down detailed guidelines on *how* to satisfy the objectives, but instead specify certain *principles* related to the instruction process and express clear objectives that leave room for different approaches adapted to the individual learners' needs of reflection. Furthermore, these subject curricula will not be very detailed as regards *what* should be the content of instruction, but will keep the focus on the learning outcomes. This approach would imply that the choice of both content and mode of instruction to a large extent would be a professional responsibility.¹⁶

From the above follows that subject curricula in an education system with basic skills and subject competence objectives will represent a considerable simplification as compared with those more content oriented. But subject curricula are major planning tools for institutions and teachers. Hence it becomes more important than ever that subject curricula express unambiguously clear learning objectives and measurable standards for the relevant basic skills and competencies, including how learners will be expected to utilise the acquired knowledge and skills.

The new education principles and objectives clearly require well qualified and autonomous school managers and teachers who are motivated and able to transform the objectives in the curricula in ways that satisfy individual pupil needs. The teacher role will change, as instruction will to a higher degree than today be in the form of mentoring and guidance of learner activities. The professional and instructional challenges represented by the new objectives and curricula obviously must be met by appropriate schemes for training and continuing training of teachers and school managers.

Assessment of learning outcomes should in general be conducted according to modes of instruction. Hence, assessment of basic skills and key competencies must necessarily be different from assessment under traditional education systems with detailed curricula in the various subjects, focusing on the actual application of the required knowledge and skills. Since basic skills and competencies are developing gradually through practice and reflection, one could argue that continuous monitoring and assessment should be an integrated part of instruction and counseling throughout the course.¹⁷ This would partly be based on learners' documentation of own work. It is a question whether this type of assessment should be given priority to traditional final examinations, or if both should be applied.

Introduction of less detailed subject curricula would imply that more decisions are left with the individual education institutions and their staff. In this system, for the sake of ensuring the quality and national equality in performance and formal assessment, the presence of a well-developed quality assurance system will be essential. Monitoring and counseling of school managers and teaching staff will be the main tasks of such a system, and particularly important in the early phases of transformation.

¹⁶ These will be the principles to be followed in the planned basic education reform in Norway. The Ministry of Education and Research (MOER) states that 25% of the instruction time in each subject under the new reform can be used more freely according to local conditions and individual needs of learners. (MOER 2004)

¹⁷ Cfr. <http://www.tenet.edu/teks/math/assess/caalt.html>.

Policy, Content and Shared Responsibilities

Following from the discussions above and with reference to the increasing dynamics of the global economy, a series of policy issues related to education content and organisation could be considered by all countries. Some of these are briefly outlined below.

a. Improve quality and attractiveness of, and access to technical and vocational education and training (TVET): In order to be able to respond adequately to the continuous changes in technologies and markets, every country needs access to a broad range of human resources. General theory and different types of practical and social skills often jointly form the basis of new profitable activities and ventures. Technical and vocational knowledge and skills at different levels are often key tools for transforming innovative ideas and calculations into real and viable products. At national level, access to technical and vocational qualifications promotes the efficient and effective utilisation of available natural resources. To many individuals, access to (basic) vocational training strongly increases opportunities of employment or self-employment, or simply to cover own needs.¹⁸

Today most countries have a significant imbalance between general education and TVET – in favour of general education - regarding availability, quality and, accordingly, general esteem and prestige.¹⁹ Primary and lower secondary education is predominantly academic. With reference to the potential significance of technical and vocational competencies to national competitiveness and to individual learners, a challenge for immediate attention will thus be for these countries to influence general attitudes to TVET and improve capacities of the TVET system quantitatively as well as qualitatively.

In Europe, there is an increasing recognition of the need to improve TVET systems and enrolment in this part of education. The EU considers TVET development a major strategic instrument for regional competitiveness. Says the “Copenhagen Declaration”:

“The Lisbon European Council in March 2000 recognised the important role of education as an (...) instrument for strengthening Europe's competitive power worldwide (...) for the European Union to become the world's most dynamic knowledge-based economy. The development of high quality vocational education and training is a crucial and integral part of this strategy, notably in terms of promoting social inclusion, cohesion, mobility, employability and competitiveness.” (EU 2002)

Sub-regional initiatives to the same end are currently being implemented in other parts of the world: Southern Africa, West Africa, the Arab States, South Asia, Central Asia, Latin America and the Caribbean, and the small Pacific Island States, in cooperation with UNEVOC.²⁰ The pace of the modernisation processes varies between these regions, but they are generally slower than what is seen in the EU. If left unchanged, there is a risk that the different political prioritisation and allocation of resources to TVET development could lead to a further widening of the economic and social gap between rich and developing countries.

b. Education for entrepreneurship: Today most education systems primarily educate for employment. However, no economy can rely on existing production and enterprises for its

¹⁸ See UNESCO 1999 for a further elaboration.

¹⁹ Higher costs of TVET, general esteem and actual job content, job opportunities and salary structure are factors that partly explain the imbalance.

²⁰ See <http://www.unevoc.unesco.org/programmes/index.htm#SubregionalCooperation>

future economic and social prosperity in a competitive world with frequent restructuring of production. Hence, in order to maintain or improve its economic competitiveness, every country should prepare youth for self-employment and encourage and stimulate innovations and development of new production. Entrepreneurship education is one out of several possible means to this end. To the individual, self-employment often is a good alternative to employment, and even the only opportunity for income-generation in many areas where unemployment is high. Hence there are good reasons for education systems to nurture positive attitudes to self-employment and provide relevant entrepreneurship training to all learners.

Entrepreneurship is based on cognitive as well as practical and social skills and would typically be a competence to be developed through practice in close cooperation with local enterprises and other external actors. Several training programmes of this type are already successfully being operated at different levels of education in all parts of the world.²¹ Students set up and run their own, real enterprise under supervision by an experienced business manager - they are learning by doing. The main purpose is not to earn money, but rather to give students an adequate understanding of the social processes and mechanisms of enterprise and encourage them to repeat the exercise as adults. The learners have to acquire and use knowledge of local traditions and culture, decision-making, economy and law as well as practice co-operation in order to succeed. The ILO is offering entrepreneurship-training packages targeting groups outside formal education that are frequently used in developing countries.²²

c. Allocation of resources for investments: Reforming education systems in general is a resource-demanding exercise, comprising the development of curricula, textbooks and other teaching aids, as well as training and updating of educationalists and management staff. Retraining of teachers and management for a system based on quality standards and competence targets as described above, implying involvement of external partners and significant changes of the teacher role, will be particularly cost inducing. This also applies to the development and upgrading of TVET, since timely and relevant training requires modern technical equipment and stable access to training materials. The inclusion of general ICT literacy among the basic skills and competence objectives to be developed in every learner implies huge and recurrent investment and updating expenses for all countries.

In general, returns on national investments in education are not immediate, but will appear only after 10 – 20 years. The link between public expenditures in education and long-term returns, which are often primarily to the direct benefit of private companies, is not easily proven. Thus, it is a task of proportions to convince politicians of the necessity to give priority to education over other important sectors competing for the same limited resources, especially if the latter bring more instant and visible results.

d. Strengthening of co-operation between education and external stakeholders: With reference to discussions above on quality education and development of skills and competencies through application in realistic situations and contexts, it is difficult to see how education systems could operate successfully unless in close cooperation with external players. Involvement of public administration and institutions as well as NGOs and private

²¹ For instance, the programmes of Junior Achievement are operated in nearly 100 countries. See <http://www.ja.org>

²² See <http://www.itcilo.org/medias/pdf/Publications.pdf> and <http://www.ilo.org/public/english/support/publ/pindex.htm>

enterprises evidently improves end-user orientation and increases the relevance of education for the individual, the community and future employers.

Stronger involvement of external actors in education and training does not necessarily imply reduced control by national authorities, even if e.g. public hospitals and private companies are given more responsibility for the actual delivery. Experiences from North America and several Asian and European countries show that the social partners, the industry and other private and public actors are valuable contributors to planning and design of education at national as well as local and institutional levels.²³ Partnerships between education institutions and external actors in general improve teaching and practice and reduce the need for investments in equipment. Co-financing schemes for training could further reduce pressure on public budgets.²⁴

Co-operation on education implies sharing of ideas and knowledge by external partners. In themes and practice related to production and income-generation, it is often a difficult task for the education institutions to establish agreements with private companies. To these, the students are seen as potential future competitors. This could be a particular great challenge to education in poor countries, where competition over scarce resources can be fierce. People often tend to treat all information an asset and hold on to it. Thus, motivating for co-operation in smart partnerships for national and local capacity building might be a question of long-term attitude formation. If successful, however, this kind of co-operation offers a good opportunity to understand and be part of participatory processes that in general contribute to strengthening democracy and support national unity and development in a broad sense.

6. Competencies for Survival and Development: Challenges to Developing Countries

Discussions on the previous pages have been quite general, observations and findings being applicable to all countries. Considered the economic and social characteristics of developing countries, are there specific challenges that these countries are facing that are less acute in the rich countries? Are there specific competencies that education in these countries should prioritise?

Present situation and purpose of education

Production in order to meet basic needs and other requirements of inhabitants is among the principal activities for every society to sustain and develop. For the nation, a healthy population is the basic resource, whereas human knowledge, skills and competencies constitute a fundamental capital base. Profitable, formal production secures the financing of necessary public activities, including education, health care and social security.

In many developing countries, the formal economy is weak and even shrinking, creating increasing social problems and growing needs for public interventions on the one hand, and increasing public poverty on the other. Serious health risks are increasing, and unemployment and general poverty make parents unable to keep children at school. An increasing number of

²³ See for instance CEDEFOP 1999 (http://www2.trainingvillage.gr/etv/vetsystems/report/de0699_en.asp)

²⁴ For different financial arrangements, see Ziderman 2001, [http://wbln0018.worldbank.org/HDNet/hddocs.nsf/vtlw/b82142d5d2e9fc6a85256c390044f44c/\\$FILE/Financing%20VET.pdf](http://wbln0018.worldbank.org/HDNet/hddocs.nsf/vtlw/b82142d5d2e9fc6a85256c390044f44c/$FILE/Financing%20VET.pdf).

people, including small children, are left to cater for themselves in a growing informal production sector, due to poor social security systems.

Whereas access to quality education is an established right of all individuals and a positive development depends on an educated population, education systems in many²⁵ developing countries are suffering from serious deficiencies in both quantity and quality. According to recent findings, in these countries: “Coverage is insufficient, access is inequitable and the quality of education is often poor, often information-based, teacher-directed rote learning provided within a formal education system governed by directives. Adult literacy rates are low, and too few children complete basic education” (World Bank 2003).

High birth rates, poor economy, inadequate governance and high death tolls in educated groups due to HIV/AIDS and other serious diseases hamper the significant efforts under the EFA and Millenium Goals initiatives aiming to reduce the outlined problems.

Content of education

In this context, one could argue that governments have no choice but to give particular priority to the development of *health* and *production competencies* of the learners, in order to break the vicious circle.²⁶ Health education, comprising issues such as general hygiene, nutrition and prevention of serious diseases, is already being integrated at all levels in most countries, and international efforts to train personnel and strengthen education on these issues are massive.²⁷

Production competencies will comprise knowledge and skills that can be utilised for production in the relevant social and economical context, by the individual or group in question. The prime goal will be to enable individuals to cover own needs and possibly produce for local markets. In this perspective TVET, including agricultural education (see below), will have a particularly important role, with a focus on knowledge and skills appropriate for the extraction and processing of local resources. However, also basic general skills and other elements in general education are relevant to income-generating activities.

Equipping learners with entrepreneurship competencies will be of particular importance in countries with few employment opportunities. A growing number of governments acknowledge this and include enterprise as a compulsory or optional topic for all pupils and students in general and vocational education. Some African countries, including Kenya and Botswana, have made entrepreneurship training an integrated part of education for all the production training, in order to stimulate the development of new, small enterprises. These are particularly important providers of decentralised employment and income, thereby contributing to the maintenance and development of the local community.²⁸

²⁵ Please note that the description does not apply equally much to all countries commonly referred to as developing countries.

²⁶ Major initiatives already being implemented within international development co-operation comprise the education of girls and education for peace, democracy and conflict resolution. An elaboration on these challenges would go beyond the scope of the present document and will thus be left out. For further information, see e.g. <http://www.unicef.org/girlseducation/>, <http://www.girlseducation.org/welcome.asp> and <http://www.undg/index.cfm>.

²⁷ See for example: http://portal.unesco.org/en/ev.php-URL_ID=2297&URL_DO=DO_TOPIC&URL_SECTION=201.html

²⁸ Relevant education is a necessary, but not a sufficient intervention for generation of new production and should be combined with financial and other supportive measures. See e.g. World Bank 2001 and ILO 2001.

Reaching the youth

The UN definition of youth is 15-24 years. In the year 2000 there were an estimated 1.1 billion young people in this age cohort globally, some 919 million of them in developing countries. (UNESCO 1999) Considering the inadequate enrolment and high dropout rate from basic education in many developing countries, how could one go about in order to provide all youth with the necessary education?

The general outreach of education is not only a matter of physical infrastructure and availability of textbooks and other teaching materials, but even of access to qualified teachers and management staff. Enrolment furthermore depends on local traditions and attitudes to education, family economy and availability of transport. Interventions with the aim to improve education systems, increase enrolment and keep all children at school for more than 8 – 10 years will be a long-term process. It is difficult to understand how the developing countries can afford to wait for this. Early school-leavers are in general worse off in the competition for jobs than those who stay longer in the system and hence even in greater need of health, production and self-employment competencies.

With this in mind, it appears inadequate to concentrate *solely* on upper secondary school if one wishes to reach all youth. Instead, one might consider a broader and more comprehensive approach including providing health and production education even to groups outside formal secondary education:

- To pupils as early as in primary school, adapted to the relevant age groups. Several developing countries have already started the process to introduce (pre-) vocational and entrepreneurship education at primary level. The question of “de-academising” or “vocationalising” of basic education is increasingly raised in the education debates.²⁹
- To youth *outside* the regular education system, particularly those in the *informal sector* and in the *rural population*. In Southern Africa, training for the informal sector is one important topic within a sub-regional co-operation aiming to reform TVET and develop a Lifelong Learning system.³⁰ Training for the rural poor is included in the UNESCO Flagship programmes.³¹

“Achieving EFA means going to where the greatest numbers of unschooled and uneducated people are. This takes us to South Asia and sub-Saharan Africa and, in particular, to the rural areas of those vast regions. (..) For decades to come 60 per cent of the world’s population will be found in rural areas. Humankind depends on them and they depend on education.” (John Daniel, UNESCO)³²

Providing education for the youth outside the regular education arenas will represent significant challenges in terms of administration and organisation of delivery. Crucial questions regarding “What and How Much”, “How”, “Where” and “When” still remain unanswered and will have to find their local solutions.

²⁹ See e.g. <http://www.unescobkk.org/ips/ebooks/documents/buildingcurriculum/pt3.pdf> and <http://shikshanic.nic.in/cd50years/r/2R/I3/2RI30501.htm>

³⁰ Cfr. <http://www.unevoc.de/southernafrica/workshop2003/index.htm>

³¹ Cfr. http://www.unesco.org/education/efa/known_sharing/flagship_initiatives/index.shtml

³² Cfr. http://portal.unesco.org/education/en/ev.php-URL_ID=30335&URL_DO=DO_TOPIC&URL_SECTION=201.html

7. Lifelong Learning and Reduction of the Educational Divide

Descriptions and discussions on the previous pages indicate clearly that the accelerating development of a global knowledge economy poses serious challenges to all countries and education systems. In the new global economy, people must be able to use their knowledge and skills effectively, act autonomously and reflectively, but even function constructively in many different social settings. In order to achieve this, countries need to replace systems of teacher-directed rote learning by models that emphasise and stimulate creating, applying, analysing and synthesising knowledge and skills.

Future education systems will envisage learning throughout life, formal learning as well as non formal and informal. Individuals will be allowed to attend education according to their needs and not because they have reached a certain age. Establishment of education systems following the new principles will be crucial for preparing individuals and nations to compete in the global economy.

To governments and actors in education, changes will be significant, with new tasks and shared responsibilities. End-user orientation will be ensured by the creation of active partnerships with the civil society in planning and delivery of education. The main role of governments will be to ensure a supportive framework for education: to formalise agreed goals and standards of education, allocate and coordinate resources, and monitor and counsel education institutions. One should not underestimate the importance of training administrative staff and management of education institutions, as well as the teachers, in order to succeed in implementing the outlined changes of education principles and system.

Development of new, appropriate education systems will represent particular challenges to the developing countries. Whereas most rich countries had the opportunity to develop their education systems gradually over several decades in relatively protected environments, the developing countries today face the challenge of managing a similar development over a much shorter time span, in an environment of fierce global competition. In addition, in order to reduce the educational divide, the poor countries even must try to keep up with the continuously ongoing education reforms that the rich countries implement with the sole aim to maintain or improve their own competitive positions in global markets. The success of the developing countries will depend on the continued massive support from the international community, but even more on the wholehearted commitment by their own governments.

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