PART ONE:

RETHINKING THE FRAMEWORK
AND THE CAPACITIES NEEDED
FOR CURRICULUM REFORM
I. SOME MAJOR TRENDS OF SOCIAL DEVELOPMENT AND THE NEED TO REVIEW EDUCATION

The need for curriculum change is based on the recognition that there has been a consolidation of a number of trends that began at least twenty years ago. These trends relate to the demand for education, to the components and resources of educational processes and to the current provision of educational services.

There are at least six noticeable trends in the demand for education: (i) the changes in occupational profiles in the context of a world of work that is increasingly heterogeneous, in many cases shrinking, swiftly changing and ever more globalized; (ii) the need to counteract deepening social inequalities and increasing marginalization and violence; (iii) the need to recognize that the diversity between individuals and communities is a valuable resource that is different from social inequality; (iv) the need to educate individuals so that they are able to satisfy their need for better forms of representation as citizens in society; (v) the increasingly broader spectrum of issues arising, for example, from advances in biotechnology on which individuals may take decisions; and (vi) the coexistence of advantages and disadvantages resulting from the impact of technical progress on the environment and the quality of life of individuals and communities.

These trends bring different opportunities and new risks for education and education systems. The existing education system was invented to cope with a society organized in classes but giving at the same time opportunities for the majority to be integrated. It was improved to cope with an economy organized in sectors and seeking for specialization. In that economy, society expected that some people learned to think and to take decisions and some others to act without thinking. Especially the non-specialized working positions could be occupied by skilled trained workers having less general knowledge and capacities for lifelong learning.

The current situation makes it necessary to learn both: to act and to think. People who have not been educated in this sense are probably not able to maintain good jobs, or invent new ones, and even to have some possibilities to direct their lives. The speed of economic and social changes makes it also necessary to learn to tackle the stress of constant changes, for one to take advantage of the changes.

It is also necessary in this current situation to strengthen the teaching of values that could be understood and internalized. The attempts to react against marginalization using violence would not solve the problems, and more than that, the unequal and haphazard distribution of opportunities are threats to the survival of humankind.

With regard to the components of the educational processes, there are also at least four important trends to be considered: (i) the constant restructuring and the acceleration of scientific and technological knowledge, and the emergence of an authentic scientific and technological system that is rapidly making educational contents obsolete based on the provision of information; (ii) the growth of milieus outside the school for cultural creation and consumption by children and young people; (iii) the ever-widening use of the new information and communication technologies; (iv) the decline in the effectiveness of the teaching and school models developed in the previous centuries.

Special attention has to be paid to the first of those four trends in the framework of the need to shift the educational paradigm in relation to one of the basic educational principles. Education was supposed ‘to transmit the culture of adult generations to younger generations’. Behind this principle is a hypothesis of stability and homogeneity that is not later acceptable. This hypothesis of stability involves generations—every generation and every culture. During the past centuries it was assumed that the young generation did not have a culture of its own and would accept willingly what was imposed by adults, that young people form an homogeneous group, where the only differences were biological or attributable to social class and that adult culture, and the way in which knowledge was produced and structured was stable over time.

The speed of current changes led to a rediscovery that each generation possesses its own culture, that there is wide diversity within each generation and that the way in which knowledge is produced and structured changes in relation to changing times. These rediscov- eries and the evolution of educational psychology lead to the acceptance that children and young people have to be active participants in the educational processes and that even the diversity has to be encouraged. The
increasing evidences about the instability of knowledge added elements to face the challenges of ‘learning to learn’.

As a result of the concurrent actions of these trends, there is a growing contradiction between progress in incorporating individuals into formal education and the deficiencies in its quality, understood as its capacity to respond to new educational demands. Some of the above mentioned trends—for example, the demand for new profiles for economic, social and political participation, greater recognition of diversity, and the new dynamics of knowledge production—are posing renewed challenges to the meaning of education. In any case, this issue concerns the content of education, defined in the broadest sense of the term. The content of education is, in fact, all that should be taught or which is effectively ‘contained’ in educational practices: values, concepts and processes for learning, being, doing and living together.

The contradictions between quantitative advances and problems in the quality of education, the increasing use of the new information and communication technologies (ICTs), the growing demand from children and young people to learn actively and creatively, and a deeper understanding of the importance of links with communities so that education may be of better quality and more effective, also present new challenges to the issue of teaching methods and school management.

Increasing interconnections and the globalization of many economic decisions and processes, intensified migration, and the international scale of many communication media provide populations with new standards and parameters. There are attempts to counterbalance these through local and national production, and they also provoke resistance. This context produces tensions reflecting different attempts at achieving membership and constructing identities. These tensions make demands on education in terms of acquiring skills to facilitate their peaceful, creative resolution.

The new scenario at the beginning of the twenty-first century thus provides more opportunities and more risks for each and every individual to have access to a living wage, for the redistribution of the benefits of economic growth, for social cohesion, democracy and cultural diversity. It also provides more opportunities and risks for peace at the international, regional and local levels.

Education can be a powerful tool for exploiting the opportunities and avoiding the pitfalls of this new scenario. But not the same education as in the nineteenth century, which is still widespread today. This education has also just offered all that it could offer, to integrate to the new social and age groups.

II. SOME CURRENT ATTEMPTS AT REFORMING EDUCATION

In the 1980s and 1990s many countries worldwide introduced educational reforms focused on the above-men-
should really try to orient the selection of contents to make possible the promotion of the competencies ‘to do, to learn, to live together, and to be’; (ii) it should try to change the logic of integration at the primary level and differentiation by ‘academic disciplines’ at the secondary level, going into a logic of a tension between integration and differentiation throughout childhood and adolescence, allowing schools to combine the disciplines, workshops, projects, etc.; (iii) it should suggest replacing methods oriented towards transmission, by methods towards the ‘construction’ of skills and the use of knowledge in context as a way to learn; and (iv) it should include proposals to evaluate procedures and competencies instead of measuring the amount of information learned.

There are mainly two changes that are being introduced between system and school governance. The first one concerns internal processes. This consists of a shift from the top-down control of well-established processes to the promotion of the institutional capacity to learn through networking. The second one concerns external processes. This consists in a shift from an isolated way of doing to a partner-oriented action.

III. TENSIONS IN THE PROCESS OF EDUCATIONAL CHANGE

In talking about comprehensive reforms and, especially, about curriculum reforms, there is a general tendency to overemphasize or interpret results and products. The government representatives reinforce the perceived successes. Frequently, university representatives and unions prefer to emphasize criticism. But in fact those products and impacts are the results of very complex processes that suffer from a number of tensions. For the purpose of an orderly presentation, these tensions can be classified as political, conceptual and institutional ones, although in practice the political, the conceptual and the institutional tensions are rather closely interwoven aspects or dimensions of the same process.

The acceleration and focus of the education reform and especially of the curricular transformation processes were made possible by the pressures when knowledge became a core item on the public agenda. This shows that there is a new consensus regarding the role of knowledge in the future development of societies and individuals. However, apart from the highly abstract question, the degree of consensus with regard to what, how, and when teaching should take place can be relatively limited.

Consequently, when reforms begin, it is necessary to deal simultaneously with at least two needs that tend to impose two different speeds on the processes. On the one hand, it is known that all consensus-building processes require a great deal of time. On the other, the possibility of legitimizing government teams depends on the speed with which they can provide responses to the felt needs of different social groups and segments, in the case of curriculum reforms, the need to have available frames of references and appropriate tools to improve the quality of education. In short, in all reform processes, it is necessary to resolve adequately the tension between achieving consensus and being efficient, to mediate between different positions and quickly provide appropriate products.

Furthermore, this has to be done frequently, in a context of dissociation between criticism and action. In fact, in many countries a factor which on occasion restricts the spectrum of participants in the processes seeking consensus and efficiency is the way in which some academic and intellectual sectors in the one hand, and political sectors on the other, interpret the role of criticism. Numerous academics and intellectuals consider the criticism TABLE 1. An overview of the reforms mentioned in the text

<table>
<thead>
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<th>Horizontal structure</th>
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eral role that can be played within the framework of republican democracy to be the same as under military authoritarianism and attempt to monopolize this role. The paradoxical results of these attitudes are the abstention from the relevant decision-making processes relating to specifically professional aspects. Some politicians, for their part, reject all criticism of their administration, discrediting it as press manipulation, products of the opposition parties, or something of that nature. The result of this attitude is paradoxical, because they deprive themselves of external views which could provide them with interesting suggestions for an improved monitoring of their transformation. In fact, in both cases there is a lack of recognition of many personal and institutional efforts.

The tension between guaranteed national unity, federal power and local empowerment is also always present in reforms, and especially in the curriculum. Frequently, the professional teams tend to loose them when deciding percentage of contents, whoever has the power. But..., is it possible to establish a percentage of local mathematics contents? Most working teams are moving towards a recognition that in each content is a global, a national, a provincial or regional and a local dimension and that decisions have to be taken differently in each dimension.

In the constellation of situations, there are on occasions certain pressures from some decision-makers to restrict and accelerate the processes of consultation and participation to the minimum required to validate the activities, alternatives and proposals generated by the nearest available technical teams. This led to a loss of opportunities for improving quality and directing collective actions that can be provided by, for instance, curricular materials produced by genuine processes of consultation and participation.

Political tensions are not dissociated from ideological and conceptual tensions. Some requirements for political monitoring arise from conceptual decisions, such as how to manage the tension between discipline-centred or child-centred curricula. In fact, one of the most difficult decisions in curriculum reforms is whether or not to reproduce the discipline-based structure of academic and university research areas as a curricular structure. The result of this decision involves many teachers and pupils. Sometimes it is not easy for them to understand why some disciplines have to disappear, be merged or split.

There are also at least four other ideological or conceptual tensions to be managed in curriculum reforms. The first, refers to the interests of religious, ethnic and cultural groups; the second, refers to the interests of professional groups having different languages and also interests; the third, refers to promoting skills or knowledge; and the fourth, refers to indicating information that has to be communicated and focuses on values and procedures to be learned—both of which are linked to one of the most important institutional tensions, between decisions makers at governmental and school levels.

In fact, one of the most relevant tensions that takes place during reforms, and specially during the current curriculum reforms, relates to what should be laid down by the authorities to educational institutions which—conceptually—everyone accepts should be increasingly autonomous.

Educational institutions and teachers go through very important experiences, but experiences are not necessarily synonymous with competency to create the education needed in the twenty-first century. Therefore, another two tensions that emerge during reform periods are those between experience and competency on the one hand and experience and capacity for innovation on the other.

It is also necessary to mention at least some of the many other institutional tensions. In all complex reform processes, it is necessary to manage different timings, which can be described as political, technical, bureaucratic and pedagogical. In poor countries, it is necessary to count upon the existence of career functionaries having stability but low salaries on one side, and the hiring of highly paid consultants but with unstable positions, following the demands of the donors.

To go through all of these tensions, reform leaders have to be very clear that if the timing, needs, languages and interests of each actor are considered separately, everything will lead to conserving the nineteenth century education. Only a new vision of educational reform can help the reformers go through these complexities.

IV. FOUR PILLARS FOR A NEW VISION OF EDUCATIONAL REFORM: IDEAS, INFORMATION, CAPACITIES AND RESOURCES

Expanding education, and especially improving the quality of educational processes throughout curriculum reform on the one side and innovation on the other side, needs a new vision for action.

This new vision assumes the centrality of empowerment, politics and policy. It promotes the access to four pillars: ideas, information, capacities and resources.

The available resources for education are not always enough and have to be increased. Whatever resources are available should be efficiently used. Oftentimes, it is amazing how the same ideas are repeated in very different contexts. It is also amazing to see very interesting ideas, which could be useful in one special context, are not known or recognized elsewhere. The strengthening of dialogue and, as far as possible, of certain basic political and social consensus on educational contents and methods, can really help to both find new ideas and also utilise the old ones better.

Nowadays, an enormous amount of information exists, however, it is not always available. In order to direct reforms, the different teams need swift and smooth availability of relevant information on contents, methods, as well as on processes of consensus building,
which may also be systematically articulated with quanti-
tative, structural and qualitative information.

Lastly, it is said that there are not enough skilled peo-
ple for undertaking the reforms. It is for this reason that
the most important pillars to improve the capacities seem
to be the strengthening of the collective and individual
capacity of the actors at all levels of educational man-
agement and in the day-to-day activities of schools. This
will allow the education personnel to participate in the
processes of educational dialogue and consensus, to pro-
duce and use relevant information and to promote coher-
ent reforms, especially curriculum reforms.

In other words, it is a question of promoting a virtu-
ous circle between policy dialogue, availability, analysis
and constant improvement of key information and the
strengthening of the skills to manage the tensions. But
there are two possibilities of managing the tensions. The
first one, is to avoid complaints—letting things go on.
The second one, is conducting the reforms in the decided
direction, bearing in mind that reforms and especially
curriculum reforms involve political, social and profes-
sional commitments.

The IBE intends to contribute in the construction of
this virtuous circle, organizing opportunities for method-
ologies of exchange, information sharing and capacity-
building through the promotion of networking in all the
regions of the world. Networking could be in the form of
ideas, information and capacities, which are available
but unequally distributed. It is just a question of mobiliz-
ing them.

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A reflection on ‘learning to learn’: the four pillars of learning and their implications for curriculum reforms

Zhou Nanzhao

I. INTRODUCTION

The IBE-PROAP Capacity-Building Seminar for Curriculum Specialists is part of UNESCO’s endeavour, in close co-operation with its Member States, to develop a broadened vision of educational contents and methods in emerging knowledge-based society and to facilitate a holistic approach to curricular reform/renewal in light of the guiding principle of learning throughout life.

In an information-intensive age, education is mandated to respond to demands in two directions: on the one hand, it has to transmit an increasing amount of constantly evolving knowledge and know-how adapted to a knowledge-driven civilization; on the other hand, it has to enable learners not to be overwhelmed by the flows of information, while keeping personal and social development as its end in view. To quote from the Delors Report, Learning: the treasure within, ‘Education must … simultaneously provide maps of a complex world in constant turmoil and the compass that will enable people to find their way in it’ (p. 85).

The reform of curriculum content has become increasingly important, inasmuch as it is essential that what students learn is relevant to them as individuals and citizens, in their present and future context, as well as to community and societal development. It is not so much based on the delivery of ‘facts’ and knowledge, but rather on the skills of learning that can be consistently applied in an ongoing manner, long after leaving the formal education setting.

This presentation focuses on the changes in education emerging over the very recent past, which have mandated fundamental rethinking on roles of education and fundamental changes in the content of education. It is intended to contribute an alternative to the world-wide efforts in the reorganization of education. It is argued, as in the Delors Report, that if education is to succeed in its tasks, curriculum as its core should and could be restructured and re-built upon the four pillars of learning: learning to know for acquiring the instruments of understanding, learning to do for acting on one’s environment, learning to live together for co-operation with others in all human activities, and learning to be for the full flowering of human potential and multi-dimensional development of the ‘complete person’.

II. THE CONTEXT FOR ‘CAPACITY BUILDING’

With all the current rhetoric around the region relating to the reform of educational content, delivery and systems, it is essential to understand the context of and need for ‘capacity building’, as it has become known. In order to complete the process of educational reform, the following contextual factors articulate important pre-requisites for building the capacity of our education systems to deliver high quality and relevant curriculum to learners of all ages.

- Important new policy perspectives are emerging, and required, in the light of the changing nature and trends of development around the region.
- At the same time, these changes have led to a need for revision and improvement of the educational content provided to learners, so that what they learn is relevant to their lives and contexts.
- A broad understanding of the structures and theories of knowledge by those responsible for building the capacity of our education systems is fundamental, so that sound decisions are made.
- Similarly, specialized knowledge of the specific content and contexts of the various disciplines and subject areas is essential before changes can be properly made.
- No one can safely make changes to build the capacity of education without understanding the psychological characteristics and learning needs of the target groups.
- Finally, education policy makers must have a thorough understanding of the pedagogical principles of organized teaching and learning.

III. THE NEED FOR CURRICULUM REFORM

In essence, there is now a need for the fundamental reorganization and re-packaging of the educational content made available to learners.

School curriculum in most Asian education systems has been much over-loaded, and yet many educators have continued to attempt to include new content in the curriculum in order to reflect changes and new needs. Therefore, there is now widespread overcrowding of the
total curriculum in most systems. Too much material is
competing for a finite time available for delivery, with
the result that some material is of necessity ignored or
brushed over.

Further, education has traditionally not so much
involved imparting the skills of learning, but rather the
cramming of information and facts, often unrelated to
the learners’ needs, and largely due to the overcrowded
curriculum. The content has also suffered from being
narrow in focus and single-discipline oriented, without
the benefits of establishing and building on links with
other disciplines in an integrated approach for a broad
education. Traditionally, there has been a bias against the
affective, ethical and values dimension of curriculum
content, now seen as vital for a balanced education.

The design and organization of education systems
has usually been centralized, with the head offices
directing in a top-down, one-way flow of education
delivery in a unified and single-style approach.
Tragically, the product delivered is all too often also
irrelevant to the contemporary needs of learners.

The teaching of life skills and social skills has not
previously been recognized as important, nor indeed
defined. Life is infinitely more complex in the world of
the twenty-first century, and it is important to ensure that
learners are adequately equipped to deal with them.

It is also widely observed that the school system
tends to cram a narrow range of information into stu-
dents that specifically prepares them to gain admission
into some tertiary course with its restricted entry criteria.
This limited approach does not adequately prepare stu-
dents for life after students leave the security of the for-
mal learning centres and systems.

IV. CHANGED/CHANGING CONTEXTS IN
CURRICULUM REFORM

A wide and very significant range of contextual changes
combine to emphasize the importance of curriculum and
education renewal. Several major factors can be identi-
fied:

- With the explosion of information and communica-
tion technologies around the world, we are witnes-
sing the emergence and consolidation of a know-
ledge-based economy and society. Such a major
change requires important and expanded roles for
education.
- The rift between the rich and the poor around the
region is not decreasing, but widening. The Asia-
Pacific region has approximately 1.3 billion of its
people living below the poverty line, living on less
than US$1 per day, and increasingly helpless to alle-
viate this gap. Policy makers now see education for
poverty alleviation as one way of making some
inroad into this dilemma.
- As an extension to this last scenario, we now have a
new phenomenon described commonly as the ‘digital
divide’, whereby the huge gap between those who
have access to information and communication tech-
nology and those who do not is exacerbated.
Strategic educational policies and planning can go
some way to reducing that gap.
- As signaled in the Delors Report, several tensions are
emerging. One key example is the threat to the pre-
servation of cultural identity and traditional indige-
nous knowledge in many communities, due to the
overpowering globalization impacts of the know-
ledge society. There is a growing need for inter-
cultural learning and international understanding, in
order to redress this impact.
- Despite the many obvious progressive developments
around the region, there are still many people who
suffer from what can best be described as social
exclusion, due to economic inequity. For instance,
800 million people are under-nourished, 1.3 billion
are living without safe water, 880 million adults are
functionally illiterate, and around 113 million chil-
dren still have no access to primary education.
Therefore, the absolute priority that UNESCO places
on social equity and education for all (EFA) to reach
the unreached is very soundly based.
- As a direct consequence of the emphasis around the
region on economic growth at any cost, severe envi-
ronmental and ecological degradation has occurred
in many countries. The importance, therefore, of
environmental education programmes that articulate
sustainable growth and development cannot be over-
emphasized.
- The processes of material progress and technical
change have in many instances led to the alienation
and de-humanization of many people. Introducing
education programmes that focus on humanistic
values can lessen these tragic effects.
- The increasing AIDS epidemic (18.8 million people
in the region have died since 1983) shows the clear
need for preventive education and culturally-based
approaches to prevention and teacher training for
‘life-skills’ programmes.

V. A NEW EDUCATIONAL VISION FOR ACTION

These changing contexts demand a new vision for educa-
tion, a vision that accepts the inalienable right for all peo-
ple to have access to a relevant education, and that many
problems and issues can successfully be addressed
through appropriate educational policies and programmes.

In a broadening vision for education, it is increasing-
ly accepted that education has expanded roles:
- as a fundamental human right;
- as an investment, for economic, social and political
advantages;
- as a tool of empowerment for disadvantaged groups;
- as a principal means for the full development of
human potential and individual talents;
VI. MAJOR SHIFTS IN EDUCATION

Over the past few years, several major directional shifts in education have become apparent, which will have major implications for curricular changes:

- From ‘schooling’ (with the expectation that people only learn during their relatively brief time in the formal school system) to continuous lifelong education.
- From teaching as the delivery of curriculum content, to learning as an active role by the learner.
- From inequality of access to equality of education, or in other words, from ‘the best education for the best’ (most privileged students) to ‘the best education for all’.
- From a focus on financial/material inputs, onto the learning process and the resultant outcomes.
- From a narrow, discipline-based curriculum and teacher-centred education, to a learner-centred, integrated, inter-disciplinary learning.
- From purely quantitative evaluation of cognitive learning achievements in terms of test scores, to qualitative as well as quantitative evaluation of all dimensions of learning outcomes.
- From rigid assessment of individual students/teachers, to a broader assessment that includes school and system performance indicators.

VI. THE FOUR ‘PILLARS OF EDUCATION’ AS FUNDAMENTALS

In order that educators and policy makers understand the relevance of the four pillars, a brief snapshot follows of what each relates to in terms of educational context.

1. Learning to know

This pillar focuses on combining sufficiently broad general knowledge and basic education, such as might be experienced in elementary schooling, with the opportunity to work in depth on a small number of subjects, in the light of rapid changes brought about by scientific progress and new forms of economic and social activity. Specific aims include:
- to master the instrument of knowledge;
- to learn how to learn and to discover, so as to benefit from ongoing educational opportunities continuously arising (formally and non-formally) throughout life;
- to develop the faculties of memory, imagination, reasoning and problem-solving;
- to understand about his/her environment;
- to think in a coherent and critical way;
- to communicate with others;
- to acquire a knowledge of the scientific method and instruments;
- to develop a scientific spirit and an inquiring mind;
- to acquire independence of judgement.

2. Learning to do

Emphasis is on the learning of skills necessary to practise a profession or trade, including all schemes in which education and training interact with work. People also need to develop the ability to face a variety of situations, often unforeseeable, and to work in a team approach. Partnerships between education, business and industry are encouraged. Key aims are:
- to apply in practice what has been learned;
- to develop vocational/occupational and technical skills;
- to develop social skills in building meaningful interpersonal relations;
- to transform knowledge into innovations and job-creation;
- to develop competence, a mix of higher skills, of social behaviour, of an aptitude for team work, and initiative/readiness to take risks;
- to develop personal commitment to work;
- to enhance the ability to communicate and to work with others;
- to manage and resolve conflicts.

3. Learning to be

The development of human potential to the fullest is the major priority of this pillar. As we go forward in the twenty-first century, everyone will need to exercise greater independence and judgement, combined with a stronger sense of personal responsibility.

An underpinning principle could be said to be ‘the aim of development is the complement of man, in all the richness of his personality’, with education contributing to the all-round development of each individual, in the face of the ‘dehumanization and personality-alienation’ that comes as a result of technical change. Education is above all an inner journey, the stages of which correspond to those of the continuous maturing of the personality. Education as a means to an end of a successful working life is thus a very individualized process. At the same time, it represents a process of constructing social interaction. Fundamental aims of learning to be include:
- cultivating qualities of imagination and creativity;
- developing diversified talents and dimensions of personalities — aesthetic, artistic, literary, sporting, scientific, cultural and social;
- developing critical thinking and exercising independent judgment;
- developing personal commitment and responsibility for the public good;
- tapping fully the talents (treasure) hidden within each individual.
4. Learning to live together

In the current context of globalization, the Delors Report places particular emphasis on this pillar. We must come to understand others, their history, traditions and cultures, living and interacting peacefully together. Aims of this pillar include:

- to discover others;
- to appreciate the diversity of the human race;
- to know oneself;
- to be receptive to others and to encounter others through dialogue and debate;
- to care about others;
- to work toward common objectives in co-operative undertakings;
- to manage and resolve conflicts.

VIII. APPROACHES TO CURRICULAR RENEWAL AND REFORM

Given that we have now entered the twenty-first century, it is absolutely essential that educators and policy makers use the broad framework of the four pillars of education and learning to develop a relevant education that will effectively meet the needs of the region’s people. In summary, it is advocated that:

- the four pillars of education be used as guiding principles for educational content and practice, in line with the principle of lifelong learning;
- the four pillars of education be used as integrated components of teaching units in individual subjects;
- the four pillars of education be used as themes for inter-disciplinary studies and programmes on major societal or scientific/technological themes, such as in the International Baccalaureate Organisation’s Approaches to learning; theories of knowledge (modules as ‘building-blocks’ of learning);
- diversification of curricular and extra-curricular activities be developed;
- decentralization of curriculum planning be implemented, taking into account the various needs of local learning communities;
- utilizing educational resources in virtual learning environments, in addition to traditional settings.

IX. CONCLUSION

The four pillars of education, as articulated in the Delors Report, provide an excellent basis for the reform and renewal of the basic education curriculum in the Asia-Pacific region. If applied appropriately within the contextual settings around the region, these pillars will add great value to the relevance of curriculum content and the delivery of a quality education that is designed to meet the lifelong needs of learners in their communities.
I. INTRODUCTION

The new millennium has brought with it a heightened sense of urgency for a greater regional co-operation in virtually all spheres of human activities. This urgency is a gift of ‘globalization’, which began to gain momentum towards the end of the twentieth century to become the gospel of the twenty-first century. It also carries with it, its own share of novelties, problems, opportunities and complexities that call for responses and resolutions which transcend national boundaries. Education is one area of activity that has been among the earliest to recognize the value of and need for regional co-operation. Some thirty years before the term ‘globalization’ came into vogue, the countries of the Southeast Asian region formed SEAMEO (Southeast Asian Ministers of Education Organization, established on 30 November 1965, with the Secretariat based in Bangkok, Thailand). The objectives were to work towards ‘strengthening regional understanding and co-operation in education, science and culture for a better quality of life.’

In keeping with its mission statement, SEAMEO is geared towards:

- The establishment of networks and partnerships;
- The provision of an intellectual forum for policy makers and experts; and
- The development of regional ‘centres of excellence’ for the promotion of sustainable human resource development.

Since its establishment thirty-five years ago, SEAMEO has achieved remarkable progress in human resource development among its member countries in the areas of education, science and culture. This has been made possible by the close links and spirit of cooperation that has prevailed over the years among the member and associate member countries. This spirit of cooperation can provide the foundation on which curricular reform in education could be built to enable the region’s education systems to meet the challenges of globalization.

II. CURRENT STATUS OF CURRICULAR REFORMS IN THE REGION

The term ‘curriculum’ as used here, refers to ‘school’ curriculum, or curriculum that constitutes a child’s first eleven or twelve years of basic formal education — in the primary as well as secondary school environment. Within this setting, a comparative overview of the region’s diverse school curricula becomes possible and meaningful.

A study of the region’s new or ‘about-to-be-adopted’ national school curricula will reveal some common trends in the curricular reforms expected to be implemented by the respective countries. The following are some of the common trends:

1. Increased democratization of educational opportunities

In all countries of the SEAMEO region, serious efforts have been made towards providing free and/or compulsory education up to the ninth or even the twelfth year of school education. This augurs well to increase literacy rates and usher in an era where an educated population is receptive to concepts such as lifelong learning, continuing education and self-improvement.

2. Raised profile of selected components of the curricula

This is especially true in science and mathematics, information technology usage and application, and the acquisition of an international language — especially English. Serious efforts have been made towards a balanced curriculum in each country, such as, integrating elements of various components across the curriculum. However, it is quite apparent that the above three components stand out in all the reformed curricula or ‘about-to-be-reformed’ curricula. The rationale behind these components’ prominence is in line with global trends as the looming dominance of the k-economy would invariably require that the human resources of any region be scientifically literate, and IT-functional.

3. Pedagogical shift towards child-centered, activity-based methodology

Increasingly, the curricula of the countries in the region advocate a shift from the traditional teacher-centred
methodology towards one that is child-centred and activity-based. This move is not entirely a new one but it does differ from the previous ones in that it goes beyond mere child-centred activities (such as lists of procedures in science practical) towards involving students in problem-solving and investigative work. Such a trend would entail the employment of a wide selection of teaching strategies, such as co-operative learning, higher-order of thinking skills and active learning.

4. Assessment, move towards alternatives

While the traditional paper-and-pencil tests still prevail in the regional curricula, such traditional notions of academic assessment through a single valid way are increasingly giving way to the application of alternative instruments of assessment. These alternatives, designed in forms such as portfolios, projects, self-assessment, etc., would provide a more holistic representation of the students’ knowledge and progress. Thus, this move represents a shift from the traditionally upheld instruments based on verbal-linguistics and logical-mathematical skills towards assessments that include a greater range of human capacities and intelligences, in tune with prevailing global trends on school assessment.

III. SEAMEO’S ROLE IN CURRICULAR REFORM IN THE REGION

‘Curriculum’, whether taken in its narrow sense or viewed in a broader perspective, has to in any case be effectively implemented to produce the desired outcome. Effective implementation entails aspects of: planning, teaching, learning and assessing. All these aspects constitute major domains of teacher education and training programmes — for the professional development of teachers. Successful implementation of a curriculum would require efficient and well-equipped implementers — the professional teachers. In the same vein, any curricular reform depends greatly on the implementation and reform. The three SEAMEO centres that have been singled out to be in the forefront of the organization’s involvement in the region’s curricular reform have been making tireless efforts at enhancing the skills of teachers, educators and school managers in their respective fields. Their specializations correspond to the core concerns of the member countries’ curricular reforms in science and mathematics, English language, educational leadership and innovations for development.

The above-mentioned centres have, over the past three decades, built up a wealth of experience and expertise in training and professional activities aimed at enhancing the skills of teachers, educators and school managers in their respective fields. Their specializations are by no means adequate to successfully support curricular implementation and reforms in basic education. These three centres have a direct impact on and contribute to capacity-building towards curricular reform. These are: (i) Regional Centre for Education in Science and Mathematics (SEAMEO-RECSAM); (ii) Regional Language Centre (SEAMEO-RELC); and (iii) Regional Centre for Educational Innovation and Technology (SEAMEO-INNOTECH).

Building the capacities of teachers and school managers is essential to fully realize the potential of any curriculum implementation and reform. The three SEAMEO centres that have been singled out to be in the forefront of the organization’s involvement in the region’s curricular reform have been making tireless efforts at enhancing the skills of the grassroots workers at school level for the past three decades or so. These workers are none other than the teachers and managers of the countless schools in the region. As the region progresses, societal demands and expectations on the schools become greater, making their tasks more complex and multifarious. These three centres with their specializations are by no means adequate to successfully meet the targets set in relation to curricular reforms by each country. However, as their specialized expertise is directly relevant to the core-elements of the reforms, it is hoped that their efforts and contributions in basic capacity-building towards effective curricular reform in the region’s education systems would be significant. SEAMEO, as a whole, is sensitive to the need to continuously re-orient and adapt itself to new situations in order to stay abreast of new developments and changes in the new age. The centres’ activities reflect this philosophy, and their training programmes are continuously upgraded to meet new requirements. Presently, all of the three centres have sufficient room and training capacity to accommodate an increase in the number of trainees. The good news is that a certain momentum has already been generated and no longer are prohibitive external inputs required to take the great strides necessary to keep pace with the ceaseless changes that characterize our times.