

WORLD CONFERENCE ON HIGHER EDUCATION

Higher Education in the Twenty-first Century Vision and Action

UNESCO, Paris, 5-9 October 1998

VOLUME IV

Thematic Debate:

The Contribution of Higher Education to the Education System as a Whole

Note of the UNESCO Secretariat

The present volume is part of the Proceedings of the World Conference on Higher Education (Paris 5-9 October 1998).

Volume I :	Final Report
Volume II :	Speeches and Lectures
Volume III :	Reports of the Commissions
Volume IV :	Thematic Debates
Volume V :	Plenary Speeches
Volume VI :	Listing of Titles of Individual Documents.

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Note du Secrétariat de l'UNESCO

Le présent volume fait partie des Actes de la Conférence mondiale sur l'enseignement supérieur (Paris, 5-9 octobre 1998).

Volume I :	Rapport final
Volume II :	Discours et exposés spéciaux
Volume III :	Rapports des commissions
Volume IV :	Débats thématiques
Volume V :	Discours en séances plénières
Volume VI :	Liste des titres des documents individuels.

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Nota de la Secretaría de la UNESCO

El presente volumen forma parte de las Actas de la Conferencia Mundial sobre la Educación Superior (París 5-9 de octubre de 1998).

Volumen I :	Informe Final
Volumen II :	Discursos y Ponencias Especiales
Volumen III :	Informes de las Comisiones
Volumen IV :	Debates Temáticos
Volumen V :	Discursos de la Plenaria
Volumen VI :	Lista de Títulos de los Documentos Individuales

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Introduction

In organizing the World Conference on Higher Education, UNESCO's goal was to create favourable conditions for a sweeping debate and to increase awareness of the principal issues in this important field.

The Thematic Debates were organized in parallel with the Commissions and the Plenary sessions and so constituted one of the selected frameworks for reflection and for deepening discussions.

Planning the Thematic Debates included the participation of some fifty representatives of NGOs and IGOs, as well as a number of resource persons and UNESCO staff members.

Each working document was prepared under the coordination of a leader with the contribution of partners chosen by the Secretariat from organizations already cooperating with UNESCO.

Working documents of the Thematic Debates were taken into account in preparing the Conference's principal working documents and in elaborating drafts of the Declaration Framework for Priority Action. This synergy marked the entire preparation phase.

The 12 Thematic Debates were regrouped into three large themes:

Higher Education and Development

- *The Requirements of the World of Work*
- *Higher Education and Sustainable Human Development*
- *Contributing to National and Regional Development*
- *Higher Education Staff Development: A Continuing Mission*

New Trends and Innovations in Higher Education

- *Higher Education for a New Society: A Student Vision*
- *From Traditional to Virtual: The New Information Technologies*
- *Higher Education and Research: Challenges and Opportunities*
- *The Contribution of Higher Education to the Education System as a Whole*

Higher Education, Culture and Society

- *Women and Higher Education: Issues and Perspectives*
- *Promoting a Culture of Peace*
- *Mobilizing the Power of Culture*
- *Autonomy, Social Responsibility and Academic Freedom*

The introduction to each Debate was given by the author of the working document. This was then completed by input from the panel members.

Each Debate produced a synthesis report representing the results of the discussions and the recommendations made.

The general coordination of the preparation and organization of the Debates was undertaken by the Division of Higher Education, UNESCO.

Volume IV of the Proceedings of the World Conference on Higher Education regroups for each of the 12 Debates:

- The Working Document;
- The Synthetic Report for each Debate;
- The interventions of the panel members.

With regard to the thematic debates on students and women, contributions which were addressed to the Organizing committee and judged relevant were also taken into account.

Thematic Debate:

The Contribution of Higher Education to the Education System as a Whole

Leader: International Bureau of Education (IBE)

Working Document drafted by: Professor Phillip Hughes
Australian National University
Australia

in collaboration with:

- . Association Internationale de la Pédagogie Universitaire (AIPU)
- . European Lifelong Learning Initiative (ELLI)
- . Forum for African Women Educationalists (FAWE)
- . Freie Universität Berlin, Unit for Staff Development and Research into Higher Education
- . International Literacy Institute (ILI)
- . UNESCO Institute for Education (UIE)

and

the UNESCO SECRETARIAT

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Abstract

The paper argues for a major role for higher education in the education system as a whole, particularly in this period of rapid and revolutionary readjustment of such systems everywhere. Social changes, frequently technologically driven, are requiring major reforms in education as societies now need education systems capable of playing the key role in this period of global development. The requirements of a high quality education and training for the whole generation of students, together with the growing implementation of lifelong learning for all, place radically different demands on all education systems and higher education will have to play a crucial part.

Higher education needs to contribute both conceptually and in the preparation of personnel. Conceptually through: contribution to the redevelopment of the school curriculum; the analysis and evaluation of education systems; through futures thinking on the evolution of education: and, through the development of co-operative networks. In personnel: through the preparation of teachers; of specialists for the whole field of education, formal and non-formal; in the development of continuing professional education, including its own personnel. A particular priority exists for the education of girls and women.

The present situation of higher education, with its emphases firmly on growth of student numbers and on finance, requires a more general commitment to the well-being of education as a whole. The call for a « new academic covenant » provides for a major re-assessment, involving the key intellectual role of universities. The contribution of research to improved practice in education is of special importance.

PANEL

Chair: M. Victor Adamets, International Bureau of Education (IBE), Geneva

Keynote Speaker: Prof. Phillip Hughes, Australia National University, Australia

Rapporteurs: Mr Malmoudi Mahmoud Tunisia
Mme Gaelle de Viron, Université catholique de Louvain-la-Neuve, Belgique

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Prof. Borero Cabal
Universidad Javeriana
Bogota
Columbia

Prof. Narciso Matos
Secretary-General
Association of African Universities
Accra
Ghana

Synthetic Report

The debate started with the introduction of the panelists by Mr. Adamets, the chairperson. Mr. Hughes, the keynote speaker, presented the working document stressing that higher education is part of a whole, and spelled out the role of higher education:

1. Conceptual contributions through research which includes:
 - ❖ the general curriculum
 - ❖ analysis and evaluation of educational systems
 - ❖ future thinking on the evolution of educational systems networks.
2. Personnel contributions through teaching
 - ❖ the preparation of teachers
 - ❖ the preparation of specialists
 - ❖ continuing professional education.

The debate was given by seven panelists, each concentrating on one aspect of the role of higher education.

These aspects involve the following major issues:

- ❖ Teacher training
- ❖ Quality of education: curriculum
- ❖ Eliminating gender disparities in education
- ❖ Life long learning
- ❖ Literacy and non formal education
- ❖ Education for transformation : the role of policy makers
- ❖ Relations between the higher education system and the general education system.

The floor was then open for interventions. More than 25 participants contributed to the discussion. The main focus was:

Higher education is an integral part of the total education system. At a time when education has become a central and continuing part of individual and social life, both nationally and internationally, higher education has a unique role in this system to make a continuing contribution to the renewal and further development of the whole.

As part of the “new academic covenant” for universities world-wide:

- higher education institutions should adopt, as a major priority of their service functions, the concept of contributing, through advice, support and co-operation, to the renewal of the whole education system in favour of sustainable human development; and, specifically, to the achievements of Basic Education for All, as proclaimed at the Jomtien Conference and confirmed by the Delors Report;
- the potential of Open and Distance Learning (ODL) as a contribution from higher education to other community education organization - schools, community, industry - this both an opportunity and a responsibility. Not just knowledge transfer but also the development of new skills and values in the curriculum. This is a two way process of education. Higher education can learn much from schools,

adult education and specially from industry, where most of the new tools and techniques of learning are in practical application - including knowledge of how we learn;

- particular importance should be given to the education of teachers as a continuous enterprise, including their initial training, and also their career-long professional development, recognizing both the key role that teachers play in educational renewal and also the need for new partners of training and development;
- noting the key role played by higher education in the discovery, development and application of knowledge, higher education institutions should seek to play an important part in the continuing dialogue which produces the school curriculum. Higher education should enhance curriculum development and research in education, particularly in subject didactics; higher education institutions as a whole should be involved in this action, through strong interdisciplinary co-operation of their Departments;
- in the broad framework of preparation of professionals, with which higher education institutions are centrally involved, special attention and priority should be awarded to the development of those professionals responsible for the necessary emphasis on lifelong learning with its implications for closer co-operation and interpenetration between formal and non-formal education;
- universities should give particular attention to the links between research in education and practice of education, noting, currently, the lack of effective impact and the pervasive need to find more efficacious and efficient processes to improve learning;
- universities, in close co-operation with the educational authorities, should develop research and studies related to basic education (formal and non-formal), secondary education, technical and vocational education, and adult education;
- recognizing the high priority given by UNESCO, at recent meetings, to the importance of the education of girls and women to the whole process of development, higher education should seek, within its own institutions and elsewhere, to assist this process;
- higher education should seek to play a significant role in the processes of analysis and evaluation of education systems in the process of renewal;
- higher education, as part of its proper role of social analysis, should aim to make a particular contribution to thinking on the future of education systems; and
- recognizing the dangers of intense competitiveness arising from current tight financial circumstances, higher education institutions should seek to make the most of their strengths through co-operative networks, which will add to the impact of institutions, nationally and internationally;
- the University as a whole has to be involved in the actions suggested above, which require a strong co-operation between experts in education and scholars in the various subjects;
- it is necessary to open institutions of higher education to adult learners: (a) by developing coherent mechanisms to recognize the outcomes of learning undertaken in different contexts, and to ensure that credit is transferable within and between institutions, sectors and states; (b) by establishing joint higher education/community research and training partnerships, and by bringing the services of institutions of higher education to outside groups; (c) by carrying out interdisciplinary research in all aspects of adult education and learning with the participation of adult learners themselves; (d) by creating opportunities for adult learning in flexible, open and creative ways, taking into account specificities of women's and men' lives.

Working Document

The Need for a Major Role for Higher Education

Higher education as part of a whole

Higher education is one of the most durable forms of education. Universities have a long history and one in which their continued survival and, frequently their flourishing, is a remarkable story. It is doubtful if they have been through more difficult times over their many centuries than at present. Much of the emphasis of this World Conference on Higher Education is to look at how our higher education institutions should adjust in order to function effectively, not only at the current time but in the century to come. A major role for higher education in this period will relate to its contribution to education as a whole.

In a fundamental sense, the requirement to adjust is true of all areas of education, as the various sectors, institutions and systems try to cope with unprecedented challenges. We will not understand the needs of higher education in a vacuum, but as part of an interconnected system where the changes in one part intimately affect all the other parts. This is particularly true of higher education whose institutions depend on the other sectors for their students and staff, but which, in their turn, develop the new knowledge and understandings, and also the new paradigms, by which we seek to explain and predict, as well as preparing for many of the professions. It is only in the nature of the changes affecting education as a whole that we can consider the impact on particular sectors and, especially, the interaction between sectors that is our concern here. It is worth taking a little time to consider the impact of change on education and the ways in which the area as a whole seeks to respond. To assess realistically the contribution of higher education to the development of education systems as a whole demands a careful look at the needs of those systems. Any realistic help requires a feeling for the directions of change in those systems, as well as their current needs.

Responses to change

In our world of massive, continuing and unpredictable social and technological changes, education has taken on a particular significance as a means both of understanding and of coping with such complexity. In spite of the frequency with which we are exhorted to adjust to change, it is difficult to realize the quite staggering impact of its increasing rate of acceleration. This is all the more powerful because of the global nature of the phenomena. The former President of Czechoslovakia, Vaclav Havel, stressed the uniqueness of this aspect for our generation.

This is the first civilization in the history of the human race that spans the entire globe and firmly binds together all human societies, submitting them to a common global destiny. Science enabled man, for the first time, to see Earth from space with his own eyes, that is, to see it as another star in the sky (Havel, 1994).

The global impact comes from a number of factors which can be identified separately, but are inter-related. Population growth is one such: after taking many thousands of years to reach 1 billion individuals by 1830, we have added another billion in the next 120 years, and have now added a further 4 billion in less than fifty years. Similar patterns of slow and then rapidly accelerating change have occurred in many key areas. These include: occupational patterns, transport, communications, science, engineering, medicine, together with social phenomena such as government and family structure.

Taking occupational patterns as one example, after thousands of years in which hunting and gathering, then agriculture, were the dominant occupations, successive industrial revolutions have altered,

and are continuing to alter, work patterns in ways to which we have not adjusted. Similarly, communications are changing drastically in form and capacity, appearing in multiple modes and linking people, worldwide, with an immediacy which stands in dramatic contrast to the past.

We all occasionally hope that this accelerating pattern will quietly go away, leaving us with a more predictable and comfortable world. At heart, we know this is not realistic. We cannot stop the tide, even if we wished, but must learn at least to swim in it and, perhaps, to direct it. All elements of life are affected and the changes are also remarkable in that they are largely unpredictable. They frequently come as a result of technological developments, themselves unforeseen, and which lead to even more surprising social results. An obvious example is the motor-car, arriving as a quite random event and revolutionizing much of human life, not only our travel but our work patterns, our living patterns, the form of our streets and cities, and the whole nature of our landscape.

Can we learn to cope with the unpredicted, the unpredictable? Recent initiatives in education are attempting to do just that and we see a significant widening both of education's agenda and also the nature of the commitment to achieve that agenda. It is from that widening that we may assess more effectively the ways in which higher education can assist and support.

Educational initiatives

A clear sign of the changed significance of education is in the priority it now is given-nationally and internationally. Countries place a high priority on education as a major means of being or becoming competitive in a tough global economic environment. This is often stated in terms of the necessity of developing a productive work-force. Similarly, international organizations see education as the key to further human and social development. For organizations such as UNESCO, this is scarcely surprising as education has been a key part of its charter for the fifty-plus years of its existence. It is illuminating that bodies with a hard-headed economic charter, such as OECD and the World Bank, now proclaim the same message.

OECD has now been substantially involved in education for three decades and it is easy to forget that it began with a charter directed only at economic reconstruction in a war-damaged Europe, its only link to education being programmes for training technicians for industry. It was the economic needs which persuaded the organization that a broad education base was a necessity for significant economic advance.

The World Bank began with a similarly focussed economic agenda. It did not make any investment in education until its first loan for that purpose in 1963, but its experience has caused it to expand that commitment. The Bank is now the largest source of external financing for education in developing countries, even though it sees its main contribution as advice to help governments in developing their education policies. The Bank's finance thus plays an important double role: directly supporting educational development; and also providing leverage on government policies, to the same end. The rationale is explicit.

Higher living standards, better health, increased productivity, improved well-being for women and their families, and good government all depend on widespread education. In an era of rapid technological change and international economic integration, an educated, adaptable work-force enables countries to prosper. The reverse is also true: countries without such a work-force are liable to be left behind and shut out of this prosperity (World Bank, 1995).

The commonality of views between international bodies is significant and will have a powerful influence on governments and the future directions of educational policy and practice at all levels. This commonality was both demonstrated and extended in 1990 by the World Conference on Education for

All, held at Jomtien, Thailand, under the joint auspices of UNESCO, UNICEF, UNDP and the World Bank. Jomtien emphasized the severity of the need: after almost fifty years of international and national effort, progress was uneven and in many cases non-existent. The 1970 figure for illiterates in the 15+ age group was 760 million; by 1990 it had grown to 882 million and it was estimated that it would reach 912 million by 2000. Other key indicators were equally disturbing. What was equally a matter of concern was the so-called 'convergence of disadvantage', the concept that illiteracy was intimately linked to other social indicators, such as infant mortality, reduced life expectancy, and poor housing and employment opportunities.

After four decades of successes and failures it has become abundantly clear that economic, socio-cultural and environmental processes are closely linked; development or decay along one dimension profoundly affects the others. [...] The pivotal determinant of the success of these programs and policies will be whether a country's population possesses the appropriate basic skills and knowledge (WCEFA, 1990).

Jomtien triggered a response which has already shown dividends.. After that conference, UNESCO established the International Consultative Forum on Education for All, (ICFEA), to promote and monitor progress towards Education for All goals during the 1990s. At the 1996 Amman meeting of the Consultative Forum, it was found that: 'There has been significant progress in basic education, not in all countries nor as much as had been hoped, but progress that is nonetheless real' (ICFEA, 1996).

To support this conclusion, the Amman meeting was able to note that some 50 million more children were enrolled in primary schools in 1996 than in 1990, and that the number of out-of-school children had also decreased by 20 million. The meeting still concluded that 'Continued progress requires even more concerted and forceful action' (ICFEA, 1996).

From the Jomtien Conference came the broad-based international commitment to a massive programme of 'Basic Education for All', to which the major international bodies, plus national governments, are deeply committed. While this programme is explicitly aimed at the developing countries, where the need is clear and urgent, a similar emphasis applies more generally. Further, while the explicit focus is on basic education, this requires particular attention from higher education, partly in its role of professional education and training, but even more importantly through its intellectual contribution. The Jomtien Conference raised a vision of a world divided between the nations who had successfully developed their education systems and those who had not and could not. This divide is deep and, on the evidence, could grow deeper, raising strong concerns on the health and sustainability of the world society. The divide between the 'haves' and 'have-nots' is actually more pervasive and fundamental than between rich and poor countries. It consists of the gap within as well as between countries which is becoming more evident between those who have developed the capacities to prosper in what Drucker has called the 'knowledge society' and those who, for whatever reason, have not done so (Drucker, 1995).

The OECD conference in 1993 on 'The Curriculum Redefined: Schooling for the Twenty-First Century' emphasized the danger of this division. The meeting brought together the developed, industrialized nations, to discuss the findings of their separate studies of curriculum needs. There was a remarkable unanimity in their conclusions. To move beyond slogans and make the statement 'a quality education for all' will be the major challenge. In our current education, success in schooling is heavily dependent on social background, with the socially deprived performing more poorly at all stages and with the disparity increasing with time. With the need to extend old areas of the curriculum, to reach new areas and to reach higher standards in both, the task of making this slogan a reality is massive. For the sake of equity to individuals and for the sake of cohesion in our society, this reality must be achieved. We should not accept the concept of a society with a large and permanent under-class, limited in their opportunities for work, for social participation and for individual fulfilment (Hughes, 1994).

Such concepts as Basic Education for All, as espoused by UNESCO, and High Quality Education and Training for All, as adopted by OECD, are part of the response of education to this situation. There is a universal recognition that, for people to meet the changing demands in such diverse areas as employment, health, political participation and personal relationships, both a broad educational foundation, as implied by the above concepts, and also a continuing involvement with learning throughout life are required. The practical implementation of this recognition is a major issue-nationally and internationally-forcing a reconsideration of all aspects of education in the effort to meet this challenge.

This reconsideration of the operation of education systems involves not only organizational and institutional redesign but also the very processes and purposes of education. Higher education is, and will continue to be, a focal point for the changes affecting education, universally. In considering the future of higher education, a fundamental aspect must be its role in the education system as a whole and, specifically, its role in the reconceptualization of current aspects of education, to meet a challenge which is relevant to the good health of the whole society.

One of the most significant impacts on the role of higher education, and one which affects all other areas, has been the acceptance of the implications of 'lifelong learning', for so many years merely a slogan but now accepted as an appropriate response to the impact of change on human life. The Fifth International Conference on Adult Education (CONFINTEA-V) adopted the Agenda for the Future, which deals specifically with the role of higher education in this framework - lifelong learning. It pointed out the growing demand for adult education and the necessary implication to open schools, colleges and universities to adult learners. In doing so, it challenges all these institutions to be prepared to adapt programmes and conditions, to develop ways of recognizing prior learning, to establish joint university/community research and training partnerships, to involve adult learners in interdisciplinary research in adult education, to make this process of education for adults a systematic and continuing part of higher education (CONFINTEA-V, 1997).

Contribution of Higher Education

The contributions of higher education may be usefully considered in terms of the follow-up meeting on Jomtien, held at Amman under the auspices of the International Consultative Forum on Education for All, in June 1996. The assessment of that meeting was that great strides had been made in the six years since Jomtien, but that the targets for the decade would not be met without greater and more effective effort. Eight common concerns were identified for the meeting, arising from the seven regional policy review seminars held during a preparatory phase.

- ❖ the 'expanded vision of basic education' needs to be applied both in policy and practice;
- ❖ more resources must be found for basic education;
- ❖ the recruitment, training and status of teachers must be improved;
- ❖ the quality of education must be improved to enhance learning achievement;
- ❖ assessment of learning achievement must be generalized;
- ❖ more emphasis is still needed on girls' and women's education;
- ❖ basic education must be made more available to children, youth and adults with special needs; and
- ❖ more attention needs to be given to develop adults' numeracy and literacy skills and on sustaining these skills.

A number of these points relate to resources, and to the political and social will needed to sustain and increase current efforts. In these aspects, universities have no more to contribute than the rest of society, although in the effective use of resources a contribution may be made. For the other points,

however, higher education has much to offer, and particularly in those dealing with teachers, with quality of education, with more generalized assessment, and with means of increasing access.

These points will be covered in two following sections, 'Conceptual contributions' and 'Personnel contributions'. A major part of the proper contribution of universities to the system as a whole is intellectual: in analysis, evaluation, synthesis and reconceptualization. This is not an area in which higher education has a good recent record. In particular, research has played a much less significant role in education than in other social fields, such as medicine. The other area of contribution is in the preparation and continued education of people with special capabilities.

A key aspect of both of these areas is in the improvement of the quality of education. In efforts to improve access and participation, it is often easy to forget that these are not enough on their own. The 1993 meeting of OECD countries, already referred to (Hughes, 1994), noted that all members had succeeded in achieving high participation levels, moving close to 100% for secondary involvement, yet acknowledging that, for a substantial minority of these, attendance did not imply appropriate achievement. Tedesco, pursuing another question, the use of time in the classroom, points out, using IBE data, that additional time in that environment does not necessarily translate to higher achievement. He stresses that this does not diminish the importance of time in the classroom, but that it does require more attention to other variables-'teachers, methods and management' (Tedesco, 1997). Again, the issue of quality is paramount. De Ketele, in his communication, emphasized that higher education has a vital role in this regard, not only to express its own performance through observable indicators, but also to aid other levels of the system to do so in a coherent fashion.

Conceptual Contributions Through Research

1. The general curriculum

A major part of any re-developments in education will be in that field of continuing change the general curriculum. Many recent approaches involve the idea of a core or common curriculum as a foundation, followed by a set of diverse pathways into higher and vocational education or employment. The UNESCO concept of basic education for all and the OECD concept of a common curriculum for all both adopt this approach, as do many of the nationally based initiatives, even in countries which formerly had little national involvement in this area. The common curriculum has been defined as follows:

I have described these learnings as basic and essential. They are basic in that they are intended to provide a foundation or base on which subsequent or related learnings may be built. They should provide learners with conceptual and methodological tools to continue their own learning. They are essential in the sense that they are intended to equip learners for a satisfying and effective participation in social and cultural life. This reminds us that core curriculum theory has strong affinities with democratic ideology, and starts from the assumption that constructive and varied participation in social and cultural life is the right and responsibility of everybody (Skilbeck, 1982).

This description indicates the highly complex process involved in curriculum development. It includes political processes, as the various stakeholders in curriculum decide on their interests and negotiate to achieve maximal effect. It includes the development of curriculum materials and media planning related to presentation. It includes the key players, teachers and students, interacting to bring reality to plans and policies. It includes complex conceptualization in relation to the knowledge, understandings and competencies selected-and those excluded. It is in the conceptual development involved in curriculum change that universities should play a key part. Given their central role in the development of new knowledge and the reappraisal of what exists, universities have much to contribute to the dialogue that is necessarily involved in curriculum changes.

The final result at school level reflects many judgments, made on a number of different bases, as to what is excluded, what is included and how the latter is organized. Ideally, the best of scholarship should be involved in the assessment of the result of these decisions. Given the major changes in all fields of knowledge-not merely addition but radical revision in many instances-a continuing dialogue is necessary between those who are involved in the redefinitions of the frontiers of knowledge and those entrusted with the task of interpretation at the school level. A major issue in this dialogue will be the willingness of both sides to understand the particular context of the other.

In the past, constructive dialogue has been too rare and both sectors have been the worse for this failure. The fault does not lie on one side only and the remedy will require effort both from the universities and the schools. In carrying through this reconciliation, it will be useful to keep in mind the long list of those who have made substantial contributions from as far back as Confucius and Socrates through Comenius, Herbart, Rousseau, Voltaire, to Gandhi, Dewey, Whitehead and Piaget, as well as current writers such as Bruner and Gardner. The sources of ideas are still present. It is a matter of building the connections.

In the preparation of this paper, a contribution sent from the Forum for African Women Educationalists (FAWE) is relevant, since it stresses the importance of wider involvement on curriculum design and development. There is need to give the subject of 'curriculum development and change process' adequate time for discussions, both in UNESCO and the national fora [...] because in many parts of our continent, people have never felt that they own or play a part in curriculum design and development. [...]

As a result, many African communities blame formal education for alienating the youth from their communities. The role of the universities in the dialogue on education is critical (FAWE, 1998). This wider role for universities will be taken up later in this paper.

2. Analysis and evaluation of education systems.

Jean-Marie De Ketele, in his valuable contribution to these discussions, wrote on this precise topic *L'analyse et l'évaluation des systèmes éducatifs* [The analysis and evaluation of education systems]. He stresses the importance of such a role, but sees certain requirements. The university is in a unique position to offer objective advice on this analysis and evaluation, but only if there is a conscious development of the necessary expertise-des compétences reconnues dans l'analyse et l'évaluation des systèmes éducatifs. As he says, most universities have the necessary base disciplines to provide the foundation for such processes, but there will be a need to show that the people involved have developed them in ways which are sensitive to the particular context of schools and systems.

The further suggestions in the De Ketele paper make a strong case for a relevant research base to be developed as necessary to any institutionalized approach and for proper account to be taken of criteria of equity and quality-not merely criteria of cost effectiveness: certes importants, mais pas exclusivement [important, yes, but not exclusively so]. An important corollary of this section and the next, on futures thinking, is the need for universities to aim especially at developing a supply of people with the required expertise. This will be taken up in the section on the 'Personnel contribution of higher education'.

3. Futures thinking on the evolution of education systems

It is increasingly obvious that the pace of change, which societies have found so disconcerting, will continue and that we must build better means, or adopt more useful processes, to help us cope with it. Universities provide an ideal setting for such studies which should take various forms. One necessary form is to follow up the long-term effects of current events-technological, economic or social. A case in point is the 'greenhouse effect', where scientists and environmentalists have joined in a campaign to lower the emission of particular gases. These campaigns are not particularly popular and run the danger of exaggeration and being accused of scare-mongering. Yet, such thinking is necessary if we are to avoid or

minimize the worst effects of our own way of living. To place such studies in a university environment should avoid the worst excesses and ensure appropriate safeguards. To carry out such studies demands a level of interdisciplinary co-operation that universities have often found difficult, and yet it is unlikely to occur elsewhere. The gathering together of so many disciplines gives the universities a unique strength-provided they have the will to use it.

A further form of study which would be of value is through more general speculation on forms of social change, together with a rigorous exploration of the implications for education systems. To a great extent, changes in education systems in recent years have come from adoptions of patterns from other areas of activity, in particular from business management.

Such ideas as decentralization and re-engineering have been adopted uncritically into education systems, without the rigorous evaluation that such adaptations require. The concepts themselves have much to offer, but their adoption-unchanged-from business, requires careful thinking on their relevance to this new setting.

4. Networks

As pointed out by De Ketele, activities such as those we have discussed for higher education imply the need for the development of networks, in order to bring together the variety

of strengths and specialisms required in such areas as future studies, system evaluations and curriculum development. De Ketele comments that few universities on their own can have all the expertise required and, even where it exists, it may need support from elsewhere. The strengths in a particular university can, in combination with the quite different strengths of other universities, produce much more powerful results, within each partner and in the communities which they serve. It is a matter of real concern that current pressures on universities are placing them more in a competitive mode than a co-operative one. Yet effective service for the community generally, in line with the best tradition of universities, implies a strong need for networks.

The UNESCO chairs and the UNITWIN projects provide a good starting-point for such networks. Developing countries, in particular, have much to gain from this sort of approach, as they may radically increase their access to needed specializations without a corresponding increase in cost. UNESCO has also been successful in establishing regional networks of considerable power, and even greater potential, such as the Asia-Pacific Programme of Educational Innovation for Development (APEID), a network of over 200 institutions in forty countries. Such initiatives offer considerable promise for future activity. Within broad networks, such as APEID, there is scope for more specialized groupings, selected on the basis of common interest and of capacity to co-operate with, and contribute to, each other. The new information technologies dramatically increase the power of networks such as we have described.

It is no longer a matter of increasing the impact of personal contact only through mail and telephone. The fax and e-mail provide an immediacy of contact and a wealth of available resources wherever they are available, and the spread is growing significantly. Virtual Conferences, i.e. conferences using computer links, have already been tried out to good effect and provide for a quite unprecedented range and variety of contacts which can revolutionize research possibilities.

Personnel Contributions Through Teaching

Anderson, in a recent paper, pointed out the central quality of this contribution. the most important thing universities do for the public sector is to train men and women adequately for the professions. In return for doing this, governments extend to academics in universities the freedom to do research, or, as Ortega y Gasset put it, to pursue the dictates of their intelligence. [...] It is a relation with

some tension in it. It is a bargain-struck between government, which has the money and which needs skilled professionals to service society, and universities, which have scholarship, science and knowledge which is the basis of good practice. It is an enlightened bargain because the most inspired learning occurs when the teacher is free to teach from his or her own enthusiasm and expertise (Anderson, 1997).

It is in professional preparation in general that the university role is so important, but we shall focus here on one area of professionalism in particular, the preparation of teachers, since here is the area which will impact most directly, and most fundamentally, on the extension and improvement of education in the schools.

1. The preparation of teachers

Two major recent initiatives have stressed further the vital necessity to redirect attention to the preparation of teachers, if we are to achieve the lifts in quality which education currently requires. The Delors Report devotes one full section to 'Teachers in search of new perspectives', stressing the essential part that teachers have to play in the future scenario. Recruitment, initial education, selection and continuing education are all emphases identified by Delors, and at least

two of these depend heavily on the universities. At the forty-fifth International Conference on Education, hosted by the IBE, the Delors emphasis was the starting point, with 'Teachers in search of new perspectives', as the first of the two major debates and 'The role of teachers in building a culture of peace' as the other.

These general initiatives set the scene, but a great deal of practical work remains to be done. Of the nine Recommendations of the forty-fifth session of the International Conference on Education, held in Geneva in 1996, three are related to the recruitment and preparation of teachers. It is instructive to note this heavy emphasis in recent major reports, an emphasis which is very deliberate. Many of the attempts to reform education in recent years have seemed to assume that teachers are irrelevant, or even hostile, to reform and have concentrated on structural matters, often leaving the classroom quite untouched, and thus failing to reach the heart of reform-the learning process itself.

Without the active and effective co-operation-operation of teachers, the substantial improvement of the quality of education is not possible. The nine recommendations of the 1996 ICE are as follows:

- ❖ Recruitment of teachers: attracting the most competent young people to teaching.
- ❖ Pre-service training: a better linkage between pre-service training and the demands of an innovatory professional activity.
- ❖ In-service training: both a right and a duty for all educational personnel.
- ❖ The involvement of teachers and other agents in the process of transforming education, autonomy and responsibility.
- ❖ Teachers and their partners in the educational process: education as a responsibility for all.
- ❖ New information and communication technologies: serving to improve the quality of education for all.
- ❖ Professionalization as a strategy for improving the status and working conditions of teachers.
- ❖ Solidarity with teachers working in difficult situations.
- ❖ Regional and international co-operation: an instrument to promote teacher mobility and competence (IBE, 1996).

While these recommendations may seem very diverse, they are closely interconnected because of the very nature of teaching and, as the Final Report of the ICE itself says: 'A systemic approach is absolutely indispensable. Experience has taught us that the teacher's role cannot be modified through isolated measures' (UNESCO: IBE, 1997).

It is true, for example, that an essential area for concentration by the universities is in pre-service courses for teachers, for many of which they are directly responsible or on which they have a major potential impact. This is an area demanding close and fundamental attention, as there have not been the conceptual changes which the circumstances warrant. Yet, these courses depend to a degree on the quality of entrants and this has become a matter of concern in many countries where the academic quality of entrants has declined substantially in recent years.

This, again, depends on the perceived status of teachers, frequently under threat as teachers are blamed for the problems encountered by education. There is an obvious link also to teachers' working conditions which are often seen now as more demanding and less rewarding, both in prestige and money. A further link is with the new technologies, seen as offering so much promise of better learning but viewed with apprehension by many teachers, who lack the opportunity to become competent in this area.

The complexity of the situation must not discourage universities from making the necessary intellectual investment to improve the preparation of teachers. Some considerable time has passed since there was a thorough reconsideration of the requirements of teaching, placing that reconsideration in the context of career-long education rather than with all the emphasis on the initial preparation. The comments of FAWE, already mentioned above, are relevant in this context: we strongly feel that, in many instances, teachers are ill-prepared for the mammoth tasks they carry out. If, for example, teachers are to be involved in building peace and national and international unity, there is need to rethink the entire process through which they are trained. Our experience is that teachers in our continent are trained to impart academic knowledge with little, if any, exposure to the other areas of their many tasks. In the reform process, teachers are often not adequately informed or involved, yet they are always required to play a critical role in the implementation of any changes in education (FAWE, 1998).

On the general issue, UNESCO has taken an important step through the Special Intergovernmental Conference on the Status of Teachers. The Recommendation concerning the Status of Higher Education Teaching Personnel from this conference was adopted by the General Assembly of UNESCO, meeting in Paris in November 1997. While general rather than specific in nature, the recommendation recognizes the multi-faceted nature of the 'status' of teachers, and the fact that this does not depend merely on a matter of finance and physical conditions, but requires a more holistic approach. Importantly, it does propose a series of standards, to provide for the very wide range of circumstances under which teachers work (UNESCO, 1996). In making these comments on the importance of their role in the preparation of teachers, the universities' commitment to their own teaching is relevant. Too often they have given lip-service to the priority of teaching when the reality of their practice places teaching well below research in their list. The nine recommendations above from 1996 ICE may be appropriately applied also to universities. University emphases on the importance of teachers in other institutions also require a recognition of its importance within.

2. The preparation of specialists

It is not only for teachers that higher education has a special responsibility, but for the variety of education specialists required at all levels and in all sectors of the education system. These include curriculum and assessment specialists, education technologists, reading advisers-the list can go on. What is common to this diversity is the need for careful and relevant preparation, recognizing that learning on the job is no longer sufficient. Nor is that approach-'learning on the job'-sufficient for those in leadership positions in education, including school principals. The almost universal pattern of greater decentralization now places not merely more responsibility at the school level, but also quite different types of responsibility: not only for curriculum and pedagogy-the traditional areas-but financial management, industrial negotiation, team-building, personal counselling and career-planning, to mention only a few. Specialist principals centres are being developed in many countries, in association with universities, as a recognition of the need. This raises also the question of professional recognition of such roles in education, parallel in form perhaps to the specialist colleges in medicine.

As is stressed elsewhere, the whole field of adult and continuing education is one with which universities must come to terms, recognizing that the commitment to lifelong learning must be accepted as a basis for more integral links with this key sector and higher education.

3. Continuing Professional Education

Recommendation no.3 from the 1996 ICE recognizes what is now widely practised in the professions generally; namely, that no initial course can do more than provide starting competencies in a modern profession. The pace of change, both with respect to base knowledge but also in relation to social and ethical demands, requires all professionals to continue with their professional education. We now know much more, too, about the necessary characteristics of such education. These must not only reflect the principles of adult learning but recognize the unique context of particular areas of professional practice. It is healthy to see the involvement of professional bodies in such developments, through medical colleges and institutes of engineering, for example.

The universities still have an enduring place in such courses, to ensure a level of intellectual challenge and a continuing reappraisal of the professional processes. Professional certification and registration should not become cosy processes of self-justification, but subject to the rigorous procedures which should properly be the hallmark of universities. This is not to belittle the very necessary contribution of the professional bodies, but once again to assert the unique way in which universities can bring a wide range of disciplines to focus on a particular field of human endeavour. Higher education is not always successful in doing this, but the capacity is there.

CONFINTEA-V, with its stress on lifelong learning, raises again the role of higher education in a wider field of professional development, including all those educators, trainers and developers who have key roles in the framework of lifelong learning, not only in the teaching roles but also in the research and service roles. To do this implies not only a need for initiatives from within the universities, but also for them to be more ready to listen to the needs defined throughout the whole system-formal and informal.

As part of this recognition, universities will need to make available to their own staff a relevant professional development on the same basis as is offered to other professional groups. A significant issue for universities in all its work in the preparation of professionals will be the education of girls and women. De Ketele has emphasized the connection between the role of universities and the findings of Jomtien, further supported by the ICFEA meeting in Jordan in 1996. That meeting declared the education of girls and women to be 'the priority of priorities', as so many other steps forward were contingent on this. 'But this requires a political will at the very heart of higher education to increase substantially the quota of women (as students, as teachers and as decision makers)' (De Ketele, 1998). In essence, this whole series of points is asking that the universities should consider themselves much more explicitly and actively as part of a holistic system.

Overview

This paper provides a background for the discussion of some key questions. The major thrust is quite strongly to emphasize the necessary intellectual and resource commitment by higher education to the education generally. The past record of the sector is uneven, with some notable successes, but there has also been a general disposition to leave the other areas to their own devices, ignoring both, the interconnectedness of the elements of the education system, and also the essential character of higher education, and its social commitment to provide intellectual leadership. As the Delors Report says:

"By calling upon universities to be places of culture and of learning open to all, the Commission intends not only to reinforce its central theme, that is, learning throughout life. It also wishes to contribute to affirmation of a major task of the university-even a moral obligation-to participate in the major debates concerning the direction and the future of society" (Delors, 1996).

This ambitious idea of what a university should be, lies at the heart of all our considerations. Delors speaks of a moral obligation, Ortega of a 'spiritual power'.

In the thick of life's urgencies and its passions, the university must assert itself as a major 'spiritual power', higher than the press, standing for serenity in the midst of frenzy, for seriousness and the grasp of intellect in the face of frivolity and unashamed stupidity. Then the university, once again, will come to be what it was in its grand hour: an uplifting principle in the history of the world (Ortega y Gasset, 1946).

This paper is an introduction to the questions to be considered by the Thematic Debate. It seeks to give some guidance about the context in which universities will contribute and also the nature of the way they participate. This participation must be both in the major debates mentioned by Delors and Ortega, and also in the specifics of the contribution to the work of the wider system. To a considerable degree, universities in the past have been able to play very significant roles without making a highly focused or deliberate effort. One of those roles has been in curriculum, largely formed by the content of university studies as interpreted by graduates teaching in schools. To a certain extent, this has happened through the very presence and background of graduates, but there have been times when quite specific interventions have taken place.

Some of these interventions have been political in origin, as for example an increased emphasis on vocational aspects of education or a focus on some social issue, such as racism. Others have been academic in origin, through major changes in a particular discipline or the emergence of a new discipline.

The other role has been with people, through the university's contribution in training graduates. Again, this has happened without a great deal of interaction between the sectors. With the greatly accelerated pace of change, these unhurried processes are insufficient. A much more focussed and deliberate effort is required. It would be easy to provide superficial answers to questions 1 and 3, for example:

- ❖ Higher education has almost certainly not strengthened its role in relation to the other levels of the system, since Jomtien.
- ❖ Current research in the educational sciences is not currently meeting the key needs of education systems.

These and similar answers to the other questions would evade the real issues to be grasped at this time of the World Conference on Higher Education. Questions 4, 5, 6, and 7 lead to discussions which can produce specific and helpful answers and this process will be valuable.

Question 1 raises broader concerns, just as valuable, but requiring different types of responses. A major emphasis of this paper comes from the belief that the processes which have enabled the universities to serve the whole system well, in the past, are no longer adequate and that much more planned and

deliberate interaction is now necessary. With the universities in a crisis of their own, there is not an easy disposition to take on this wider task.

The enormous expansion of the university system from an elite to a mass enterprise has brought major problems with it. These include the very difficult task of financing such an expansion when other areas of society are also making increased claims. The more basic question, however, relates not to finance but to purpose. The challenge posed by Jomtien for universities would place them at the very heart of the whole education system and with a key role to play in the reform that is a necessary consequence of the requirements of a global society. The essence of the issue for universities is the will to be involved and to take the drastic steps required for an effective involvement.

As mentioned earlier, *Question 2* also raises important intellectual issues, as well as being an area where we can gain much from a study of practices in different situations. Quite different models are in place in different countries, but many changes have been introduced without a thorough analysis of the possible implications. The use of both university-based and school-based models seems sometimes to be more a matter of ideology than of rigorous thinking, backed by research. This is a major task for the future and one in which the universities should be centrally involved.

Question 3 also leads to a more general discussion and one which it is very important to initiate and continue, for it will not provide short-term answers. In spite of a massive effort in the area of educational research, this endeavour has not made anything like the contribution to practice which is observable in other areas. In engineering and medicine, for example, the impact of research on professional practice is massive and continuing. The American Educational Research Association (AERA), one of the largest and most powerful bodies in the field, has recently conducted a major debate, featured in its journals, on 'The awfulness of educational research'.

This represents a searching self-examination as to why, in education, a huge gap exists between research and practice, and also between researchers and practitioners. Some of the difference between education and areas such as medicine relates to the nature of the areas themselves. This does not explain the whole lack of impact of research in education—a lack whose effect is very serious, leading to a vulnerability of education to miracle cures, those magic remedies guaranteed to fix all current problems. Almost all technological developments of recent years have fallen into this miracle category, from radio through to television and now to computers.

Until now, the impacts have been negligible in the classroom itself, in spite of the promise. Much needs to be done on both sides of the research/practice gap to build an effective bridge. Within education systems, it will require a culture change, for practitioners to look automatically to research to provide answers to some of their most important and currently intractable problems. To help in achieving this cultural change, the researchers will have to consider their own practices. Sroufe, in the AERA, discussion pointed to particular areas for change. Education research is often not valued because it does not seem to address problems of significance to the larger public and policy makers, and because when it does address such problems the available studies are often found to be of questionable quality, yielding information that is equivocal and often contradictory (Sroufe, 1997).

In considering these same issues, the AERA Council supported these comments, concluding that more effort was required to develop research programmes seeking to address significant issues through consensus techniques. They were conscious of a general opinion that too much research was through the initiative of individual researchers 'gleaning to provide support for one's own biases' (Sroufe, 1997). For real progress to be made in this vital area, higher education institutions and research institutes, on the one hand, and the school systems and informal education sector, on the other, will all have to look to their practices and the assumptions that lie beneath those practices.

For the past decade, universities have experienced a continuing sequence of changes, resulting in major readjustments of both structure and practices. During these events, higher education has had to be

centrally concerned with survival and this has led to an introspective stance. The challenge for the future is to become outward-looking again, accepting a responsibility for both leadership and partnership within the wider system of education. The research issue is the type of issue to which higher education should give priority, as it relates to a fundamental task of universities, the discovery and use of knowledge.

In the UNESCO policy paper on higher education, this challenge is expressed as one for a renewal of higher education. It speaks of the 'pro-active university', where this paper has called for a more outward-looking stance. It calls for a 'new academic covenant', as the means through which universities, world-wide, could reach a common agreement on 'a renewal of its teaching, learning, research and service functions and ultimately of the institutions of higher education themselves' (UNESCO, 1995). In his foreword to this document, the Director-General, Federico Mayor, said:

« However, like many other problems facing contemporary societies, those concerning higher education call for concerted and integrated action. I therefore take this opportunity to appeal for greater co-operation among all the actors to achieve our common goal—the further development of higher education as an instrument for reaching sustainable human development (UNESCO, 1995). »

It is this acceptance of a wider social role for higher education that lies at the heart of this discussion. In recent years, there has been a turning inwards, partly as a result of higher education concentrating on its own pressing problems. These may remain insoluble unless the institutions can begin to play a part again in the great debates of our society on such issues as 'global citizenship', 'a culture of peace', and 'sustainable human development'.

The Questions

The following questions were posed for the WCHE Thematic Debate: 'Higher Education and the Education System as a Whole'.

1. Since Jomtien, has higher education strengthened its role in relation to the other levels of education?
2. What are the major challenges for higher education systems with regard to teacher training (formal and non-formal)?
3. Is current research in the educational sciences meeting the key needs of education systems?
4. What lessons can be drawn from good practice across various regions (i.e. where there are good linkages between higher education and other levels of the education system)?
5. What partnerships (e.g. government, private sector/industry, NGOs, UNESCO Chairs) are necessary to ensure these linkages?
6. What mechanisms are required at the system level?
7. What are the necessary measures to be adopted for the purpose of certification and recognition through non-formal education systems (NFE)?

World Conference on Higher Education

The proposals that the Thematic Debate on 'Higher Education and the Education System as a Whole' could address to the conference with a view to including them into the Declaration/Plan of Action are as follows:

This World Conference

. *Recognizing* that higher education is an integral part of the total education system, at a time when education has become a central and continuing part of individual and social life, both nationally and internationally, and

. *Accepting* that higher education has a unique role in this system to make a continuing contribution to the renewal and further development of the whole,

Resolves that, as part of the 'new academic covenant' for universities world-wide:

* higher education institutions should adopt, as a major part of their service functions, the concept of contributing, through advice, support and co-operation, to the renewal of the whole education system in favour of sustainable human development; and, specifically, to the achievement of the aims of Basic Education for All, as proclaimed at the Jomtien Conference and confirmed by the Delors Report;

* particular importance should be given to the education of teachers as a continuous enterprise, including their initial training, and also their career-long professional development, recognizing both the key role that teachers play in educational renewal and also the need for new patterns of training and development;

* noting the key role played by higher education in the discovery, development and application of knowledge, higher education institutions should seek to play an important part in the continuing dialogue which produces the school curriculum;

* in the broad framework of preparation of professionals, with which higher education institutions are centrally involved, special attention and priority should be awarded to the development of those professionals responsible for the necessary emphasis on lifelong learning with its implications for closer co-operation and interpenetration between formal and non-formal education;

* universities should give particular attention to the links between research in education and the practice of education, noting, currently, the lack of effective impact and the pervasive need to find more efficacious and efficient processes to improve learning;

* recognizing the high priority given by UNESCO, at recent meetings, to the importance of the education of girls and women to the whole process of development, higher education should seek, within its own institutions and elsewhere, to assist this process;

* higher education should seek to play a significant role in the processes of analysis and evaluation of education systems in the process of renewal;

* higher education, as part of its proper role of social analysis, should aim to make a particular contribution to thinking on the future of education systems; and

* recognizing the dangers of intense competitiveness arising from current tight financial circumstances, higher education institutions should seek to make the most of their strengths through co-operative networks which will add to the impact of institutions, nationally and internationally

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Possible contributions of higher education to the development of education in general

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The ideas and opinions expressed in this document are those of the author and do not necessarily represent the views of the Secretariat or those of the institutions where she works.

Since 1970, Latin America has experienced a period of cynicism with regard to the role of education in the development of individuals and nations (Braslavsky, 1987). The 1990s brought with them a rebirth of the central role of an individuals' knowledge and abilities in the processes for improving the population's quality of life and in the nations' competitiveness (ECLA-UNESCO, 1992).

On the other hand, this rebirth was accompanied by a widespread acceptance of the profound crisis in the educational processes, institutions and systems charged with providing that knowledge and developing those abilities. Consequently, the conditions were created for a new emergence of policies of educational reform which is, in fact, taking place (Carnoy & de Moura Castro, 1997; Braslavsky & Cosse, 1997).

The successive economic and financial crises and the impact of authoritarian political regimes on Latin America had produced not only the paralysis of significant processes of democratization in education initiated in the 1950s, but an evident deterioration. This was often associated with an undoubted loss in priority with regard to public investment in the education sector, which continued well into this decade. But it is also increasingly associated with the educational model developed towards the end of the last century.

Indeed, that old cynicism arising from a widespread lack of interest, and even political boycott of education, from the marked spread of radical critical theories, and from the persistent lack of economic resources, led to a lack of innovation in key aspects ensuring a quality education for everyone. There was a lack of fertile reflection on the possibilities and trends in economic and social development, of precise knowledge of the educational process, of authorities and teachers qualified to face new problems, of research results on many teaching issues and of appropriate teaching materials

While the role of education for the improvement of the population's quality of life has been revalued throughout Latin America and policies for reform have been drawn up, there are still not sufficient conditions to guarantee the quality of education itself. However, there is also strong evidence regarding the urgent need to reinvent education. In other words, there is a conviction that it is no longer a question of trying to revive the schools and education systems invented towards the end of the nineteenth century and expanded in the twentieth century, but of inventing another institutional model able to embrace new teaching practices. *

*. Use of the terms 'invention' or 'reinvention' of education is currently very frequent in the educational literature, particularly Anglo-Saxon writing (See among many others, Schlechty, 1997). However, a reconceptualization from the Franco-Prussian, Iberian and Latin American traditions has still to be undertaken.

Two questions arise in the light of this need. First, who can undertake this invention? Second, how can it be ensured that this invention occurs not just on paper, but is actually translated into action?

In the past, the State played a fundamental role in both issues. The history of Latin American education is to a decisive extent the result of the creative ability of national States, on whose weakness or strength depended to a significant degree the weakness or strength of their schools and educational systems and - reciprocally - whose weakness or strength depended equally significantly on the weakness or strength of the educational institutions they had created.

There are currently those who maintain that part of the problem apparently resides precisely in the role played by the State. Consequently, the solution would appear to lie in achieving the greatest possible abstention on the part of national States from the regulation and promotion of quality education.

In fact, in many countries in the region military governments exercised educational policies that meant exactly such an abstention. However, the consequences seem to have been a deterioration in the quality of pupils' learning that extended well beyond the term of their policies, with curves that are only just beginning to change direction as national States design active policies again and put them into practice.

But the type of participation by Latin American national States in the 1990s is significantly different from the leading role they played in the foundation and expansion stages of the education systems. Previously, they set themselves up as leading figures with monopolistic intentions and hindered, reshaped and controlled many non-government initiatives. Not without tensions or ambiguities, they are now trying to turn themselves into promoters and guarantors of a scenario in which many actors converge to find better solutions to today's pressing needs and to facilitate the required reinvention of education.

The higher education institutions therefore act in a different context. To a much greater extent than before they need to help reinvent education on a basis of reflection and active critical analysis. In other words, they are required to be the leading figures in the active reinvention of education as a whole, together with the national ministries and other organizations and social actors.

In the light of this demand, the new question is whether they really are.

1. The difficult relations between the higher education system and the general education system

That monopolistic intention on the part of the State or, depending on each particular case, the interruption to the research and development traditions in various countries contributed to a progressive distancing of universities and non-university higher education institutions, and even of teacher-training colleges, from the day-to-day tasks in primary and secondary schools. Educational action was thus deprived of a possible source of knowledge and alternatives. But, at the same time, critical reflection in many areas of higher education was dissociated from opportunities for enrichment through active participation in the preceding educational levels. In a way, events led primary and secondary schools to act with little thought, and universities and non-university higher education institutes to think or propose while making little impact on reality.

1.1 The constant questioning relationship

In some countries in Latin America there is even today a significant group within universities that gives greater priority to voicing its complaints than to its ability to submit proposals. This group expresses its complaints in two registers. The first relates to the trends and results of the general education system. The second to the policies for changing them. The result is a widespread paradoxical logic in its

representatives' contribution to debates on the general education system, which consists of maintaining the kind of argument that the education system is all wrong, but that all proposals for improvement are even worse.

1.2. The compliant service relationship

In those same countries and in others in the region there is, at the same time, a second group within the universities which gives priority to serving government macro-policies via the non-critical sale of its services for implementing State or even trans-State provisions, whatever those may be. This group's premise appears to run along the lines that the education system is so bad that it cannot possibly get any worse. Therefore, whatever attempts are made to improve it will necessarily be good. It is not a matter of questioning it, simply of helping to implement it.

1.3. The creative interrelationship

A third group seeks another position. Throughout the world, more and more intellectuals are individually deciding to participate in different non-university spheres, in State and even government functions, while trying to maintain some degree of independent judgement that will allow them to influence the direction of society, and not leaving the constant search for truth to party, or corporate government, or opposition organizations, (Wallerstein, 1998). In Europe and other regions in the world this trend has a long tradition. In Latin America it has been fostered to the extent that some of its representatives hold posts of President or Minister. In the universities and non university higher education establishments there is a gradual attempt to exercise this mode of participation on an individual or institutional basis.

In fact, this trend has to do with a search that goes beyond the university sphere and consists of a group of intellectuals functioning increasingly as analysts of symbols (Brunner, 1993) trying to combine within themselves two profiles previously much more dissociated: the ideologue and the expert (Bobbio, 1991). The ideologues would be the representatives of the first of the above-mentioned groups. The experts of the second. The ideologues would have more to do with the principles, and the experts with practical knowledge. Reconciling these two perspectives would facilitate attempts to invent mechanisms for resolving problems, so that the solution is consistent with a humanistic ethics: finding the necessary instruments to put principles into practice.

In a period of crises and uncertainties, when change is extremely fast and the consequences of growth, development and modernization usually include large measures of marginalization, and the pauperization of high percentages of the population, the participation of individuals and institutions in that effort towards reconciliation can provide reinsurance and guarantee against rhetorical participation or short-term pragmatic solutions. In our opinion, only such a convergence can really enable higher education institutions to participate appropriately in the process of reinventing education.

2. Some alternatives for creative interrelationships

The individuals and institutions in higher education belonging to the third group referred to usually operate within national and transnational trans-institutional networks, combining exploitation of both the internal resources of their base establishments and those external to them.

The ways they do so vary. The same is true of the spheres they operate in. The educational sphere is one of them. Three of the most fruitful and widespread ways are:

- ❖ participation in intersectorial and inter-institutional consultations for curricular and institutional change in primary and secondary education;
- ❖ change in the models of basic teacher training and professional upgrading; and
- ❖ the design and implementation of a special type of programme that could be described as 'Multi-dimensional programmes for inter-institutional co-operation'.

2.1. Participation in intersectoral and inter-institutional consultations

One of the problems of the existing education system that has run its course, in particular the middle or secondary level, comes from it having been defined to a large and almost exclusive extent on the basis of university academic models (Goodson, 1995). This led to the construction of an education model designed to educate potential graduates, instead of people prepared to perform as critical, productive citizens. In Latin America the situation has become dramatic due to the over-representation of candidates for conventional courses and a strong under-representation of candidates for professional technical courses to fill middle-range positions in dynamic areas of the economy. In these areas there are already -alongside unemployment in others -unfilled positions and productive undertakings still to be developed, even though these may require only low capital investment.

On the other hand, these academic models generated in the image of the universities of the second half of the nineteenth century and the first half of the twentieth century have not been updated. The plans and programmes dated -at least until the 1990s - at best from the 1940s or 1950s.

Updating these programmes requires the active, focussed participation of the higher education community, not as the only leading figure, but in a new type of interaction with representatives of the world of work and lay society. In fact, it is not a matter of the higher education community deciding what contents should be taught, but that once society has set out its basic learning needs, the higher education community of researchers and teachers should help to identify the reservoir of up-to-date contents that can be called on to satisfy those basic learning needs. From this point of view, the general education system should no longer be demanding, for example, the teaching of physics or biology. It would rather be a matter of the general education system developing the competence to understand and participate in the natural world with the depth appropriate to responsible citizenship, using some specific contents from a range of equivalent possibilities.

Taking part in processes like these means a significant change of approach from university staff and the officials responsible for education policies. It is no longer a question of defining or asking for definitions of what should be taught, but rather of something both more modest and more ambitious: proposing what knowledge could be used to educate, facilitating the dialogue with people with other profiles. This involves overcoming mutual prejudices and adopting a logic of interchange going beyond the logic of delegation.

The programme of curricular reform in the Dominican Republic, the drawing up of the Common Basic Contents in Argentina, the defining of profiles of professional families in Mexico, and other undertakings during this decade are advances in the proposed direction. In all these initiatives there was a much more active participation than previously by members of the higher education - particularly the university - communities, replacing or complementing the activity of long-standing medium-level technicians in the bureaucratic structure of what is left of the Ministries of Education. Convening and containing them has not always been an easy task, due in some case, to the lack of recognition of non-academic knowledge, of relevance to the demands of the 'ordinary citizen', or of the ability to differentiate between the scenarios determined by the authoritarian governments prevalent in previous decades and those defined by democratic governments characteristic of the present.

2.2 A fresh and strengthened presence in basic teacher training and professional upgrading

In practically all the Latin American countries, primary and secondary teacher training for the whole education system has been gradually concentrating at the higher level (Messina, 1997). Unfortunately, there is no evidence of the effectiveness of this strategy for improved quality and equity in education. On the contrary, there appears to be evidence that these policies might have strengthened the concept that teachers are repeaters or mediators of academic knowledge, and not professionals to whom society and individuals present specific professional challenges, to attend to which they require, a solid cultural capital, a sound knowledge of the sphere they participate in and of the actors in the education

system and - above all - consistent standardized and perfectible procedures for resolving basic learning needs.

On the other hand, the teachers of Latin America would also appear to reflect the lack of effectiveness in the refresher and extension strategies implemented by the higher education level, by demanding in their place peer learning, based on and aimed at action (Carron, 1996). However, it is doubtful that this demand from teachers fully takes into account today's scant ability of the overall education system to understand and project in relation to the scenarios of the future and the possibilities opened up by processes such as the computer revolution. It is more likely that behind it lies an awareness of a certain amount of contempt for the teaching and educational dimensions of reality that usually permeates higher education.

It therefore seems essential and urgent for higher education institutions to find alternative ways of developing refresher and extension activities that will only stem from an authentic and consistent revaluation of the significance of pedagogy as a vital and irreplaceable lever for entry to the knowledge society. Without this revaluation it is unlikely that higher education institutions will be able to perform any better the responsibilities assigned to them and that - for better or worse - they have accepted in relation to the basic training, refresher courses and professional upgrading of primary and secondary teachers.

Some Chilean and Brazilian experiences, as well as a broad programme of training for mathematics teaching developed by the Catholic University of Santo Domingo, in co-operation with the University of Miami, and funded by Canada's IDRC, or the setting up of a new network for the basic training and professional upgrading of secondary school teachers, constitute some efforts that are leading the change in paradigms in this sense.

2.3 Multidimensional programmes for interinstitutional co-operation

In a certain sense, the two previous proposals are relatively conventional. It is a question of acting differently, but in fact it could also be said that it is a question of expressing opinions and teaching, two activities that the Latin American universities have managed to develop, along with research. The greater challenge - in our opinion - is also to develop another kind of action: the transformation through contextualized developments, including expert opinion and education focussed on short, medium and long-term needs in establishments in actual communities. This can be achieved via what we call 'multidimensional programmes for interinstitutional co-operation'.

The description that follows is a "pure type" of multidimensional programme for interinstitutional co-operation. The idea has been developed from existing programmes in several Latin American countries. However, it is possible that none of them responds fully to all the characteristics set out here.

The concept of multidimensional programmes for interinstitutional co-operation accepts the limits and ineffectiveness of traditional planning, based on the criterion of providing homogeneous inputs for schools with heterogeneous populations and circumstances. It also recognizes the inadequacy of actions focussed on the transformation of one of the inputs or aspects of an effective pedagogical process. It proposes the need for simultaneous intervention in the largest possible number of inputs and processes, considering their particular structure in a specific universe of institutions.

A multidimensional programme should propose acting simultaneously on a number of complementary key issues, for example, teacher training and practice, the management model, teaching materials and community relations. Given that simultaneous intervention in several inputs and processes cannot be carried out relevantly on a large scale and they require a dynamizing agent to exercise detailed expert follow-up, it is unthinkable that this should be in the hands of the State. The dilapidated Latin

American national States would not be in a position to initiate and follow up the number of programmes of this type that it may be necessary and relevant to maintain. Each university as a whole, the teacher-training colleges taking personal responsibility for the function of developing and promoting curricular and institutional change, or some of their academic units are in a position to do so. Furthermore, there is the likelihood that the development of this kind of programme will allow them to exercise much more fully the above-mentioned functions of opinion, research and training.

A programme of this type cannot be developed if the institution of higher education sets itself up as holder of knowledge and the others as non-holders of knowledge. It is only successful, if formulated as a co-operative strategy between institutions with differentiated, complementary knowledge in which the more developed academic knowledge of the higher education institutions is valued in the same way as the knowledge of the subjects and contents held by the institutions in the general education system.

Other necessary additional characteristics for these programmes to be successful, are ensuring detailed follow-up of experiences through ex-ante on-going and ex-post evaluations, involving the greatest number and most varied kind of actors, in the everyday life of the educational establishments, strengthening constantly innovating organizational and administrative styles in each place, and providing constant feedback on successes and failures, via exchanges with other educational areas.

The clearest variable for the success or failure of a programme of this kind is probably whether, after two or three years in operation, it constitutes a self-regulated network.

Indeed, in many cases it has been proven that most institutions that guarantee high learning achievements are, in fact, connected with a network of establishments with which there is an enriching interchange. This is probably because only interinstitutional networks guarantee systematic professional interchange for all members of the professional teams. Finally, the network manages to articulate different institutions by offering alternatives to avoid the risks of reproducing tendencies towards self-reference and a blinkered outlook.

On the other hand, the presence of higher education institutions and - above all - of autonomous universities in these networks, may help to provide schools with a 'friendly mirror' in which to reflect their difficulties, without the risks involved in doing so with the authorities charged with issuing judgements or funding services, and before doing so with their communities, inclined to impose the social sanctions they are legitimately entitled to. It may also help to reduce the impact on schools of the discontinuities that still occur between the administrations of different political parties or factions, thus guaranteeing educational establishments a relatively permanent interlocutor. Finally, they can also provide support to the school in situations of strong undesirable client pressures, or strengthen a professional culture inherently counter to party political clientelism. But to do so they themselves have to be protected from the same kind of temptations.

In short, it can be said that the opportunities for tertiary and university institutions to contribute to the development of the education system as a whole are obviously many and diverse. They have to do with the restoring and strengthening of the concern to think alternative worlds to the present one, a task that sometimes seems to have been forgotten, as well as providing results of quality research on macro-economic, socio-politic and pedagogical processes and trends, or on institutional processes and experiences and individual and group learning. But, it also has to do with reinventing its traditional functions of building opinion and educating teachers; doing so in a way more integrated into the processes of change-, as well as trying to become levers for educational changes in containable sets of educational institutions to facilitate their articulation into permanent networks for the achievement of significant institutional designs and the simultaneous change of a broad set of inputs and processes relating to the effectiveness and efficiency of teaching practices.

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"The Contribution of Comprehensive University to the Education of School Teachers"

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There are many ways that higher education could contribute to the development of the education system as a whole. It is the highest level in the whole education system. It is the place where knowledge is generated and re-generated. It is also the place where the highest level of human resource, the intellectual, is cultivated. We hope this highest level of human resource will discover and invent to expand our scientific and technological frontiers. We hope they will play important leadership roles in society to create a more equal, healthy and peaceful world.

However, there is the most important kind of human resource that higher education should cultivate in contributing to the education system as a whole. This is the schoolteacher. I would like to argue here that the cultivation of competent and self-reflecting schoolteachers is a particularly important function of the comprehensive university.

The three intellectual levels of school teachers

At the basic level, schoolteachers are needed to maintain and perpetuate the education system itself. However, schoolteachers can simply play a custodian role to reproduce the education system at its foundational level. We have observed schoolteachers whose major concerns are to maintain discipline and to "cover" the examination syllabus. They reject the disadvantaged students. They would pick the "bad apple" and dispose. As a result, the education system will generate a submissive generation with little self-confidence. The students will be good at following orders, but timid and un-imaginative.

An un-imaginative generation good at taking examination is not too difficult to produce. However, basic education should nurture creative minds. It is particularly important in the era of information technology and the new workplace. We need a generation that is able to solve problems, to master information technology and to collaborate with peers. The quality of education has become the focus of attention in many places where general basic education has been completed. However, quality education depends very much on the quality of teachers. We need confident schoolteachers with good subject knowledge and teaching skills.

Quality education should progress beyond the effective imparting of knowledge and the cultivation of creative minds. It should also instill a genuine concern for human development: social equity, health environment, and world peace. Schoolteachers should be able to bring in this new perspective to their teaching and to reflect on the existing education system. Would it be too demanding on schoolteachers who have never had a chance to go to the university?

The compromise of quality for quantity of school teachers

It is a common phenomenon that the quality of schoolteachers and the role of university in the education of quality schoolteachers emerge as important education issues only after the achievement of basic general education for all. During the rapid expansion of general education for all, the focus is in the provision of enough school places. The demand for school places has to be satisfied in a short time. The more visible signs of achievement, namely school buildings, equipment, facilities and other hard wares receive the most attention. The quantity of teachers required also has to be satisfied in a short time, but usually with a compromise for their quality.

The quality of teacher is usually compromised in two ways. The first way is to have a larger pupil-teacher ratio such that the quality of teacher attention to each pupil is diluted. The second way is to recruit teachers with low academic preparation. Someone with only primary school education may be recruited to teach in the primary school. Secondary school graduates can start teaching in the secondary school on their graduation. These teachers may have to undergo some form of initial teacher training lasting for a few months to more than a year offered by a mono-technic teacher training institute. But such training will usually equip them with only survival skills in the classroom. They can be good "reproducers" of the existing education system. Though some of them can keep up with technological changes and changes in the workplace and strive to nurture creative minds among their students, they can hardly bring in new perspective to their teaching.

The reason for the compromise of quality for the quantity of schoolteachers is not totally financial. If the minimum academic qualification of primary school teacher is secondary education and that of secondary school teacher university education, then there is an inherent "out-of-phase" phenomenon in the provision of "qualified" schoolteachers during the development of the education system. Rapid expansion in primary school education usually takes place before the expansion of secondary education when secondary school graduates are readily available. Similar situation proceeds to the development of secondary education.

Contribution of university to the education of quality school teachers

On the achievement of general basic education for all, education systems usually move into the development of expanded higher education opportunity for all. It is also the good opportunity for the education system to "make good" the deficiency in the quality of schoolteachers resulting from compromises in the earlier stage of development. Part-time in-service programmes can be offered to the incumbent teachers to upgrade their teaching skills and academic knowledge. However, what is more important is to create a new generation of competent schoolteachers with broad perspective and self-reflection.

The issues here are (1) what kind of teacher education programme? and (2) what kind of higher education institution is more suitable for the cultivation of a generation of schoolteachers of high intellectual level? There are the Bachelor of Education (B.Ed.) programme and the regular university degree programme, plus an extra year of teacher training. The former programme of teacher training has been criticized for not being able to recruit high caliber secondary school graduates into the programme. Besides, the B.Ed. programme may fail to provide vigorous enough training in the subject matter, such that teachers can teach the subject with confidence.

We also expect the new generation of teachers to have broad exposure to cultivate their concern for human development with particular reference to their local context. A comprehension university provides a great variety of elective courses contingent to the cultivation of an inquiring mind. It also provides a liberal atmosphere of academic debate and intellectual exchange. It should be a more suitable place than the mono-technic teacher training institute for the training of the new generation of schoolteachers, if financially feasible for a country. The comprehensive university has a lot to contribute to the development of a health education system as a whole.

Finally, the world is becoming a single community. A country is not isolated and separated from the other. Higher education institutes of the more developed countries have been helping to train the high level human resources for the developing countries. For instance, until the rapid expansion in higher education in the early 1990s, Hong Kong has been dependent on overseas education to train more than 50% of its university graduates. Rapid development of the B.Ed. teacher training programmes in the more developed countries in the 1970s has led to a surplus of the capacity in the 1980s. There has been a proliferating tendency of these higher education institutions to use their surplus capacity to help train

schoolteachers in the developing countries. Besides recruiting overseas students, these higher education institutions also offered "off-shore" B.Ed. programmes to incumbent teachers in the less developed countries. These "off-shore" degrees should become more common in the era of "cyber universities".

The "off-shore" B.Ed. teacher training programmes could introduce an international perspective to the new generation of teachers, though less effective than the actual overseas studies. However, there are reservations for their proliferation. First, the quality of the programme cannot be guaranteed due to a vicious cycle of competition for students by the institutions. Second, these programmes are offered in the vacuum of local context. Thirdly, the effort to build up indigenous capacity in the training of the new generation of teachers, for development of the local education system, may be diverted.

Concluding remarks

The development of a healthy education system as a whole needs a new generation of competent schoolteachers with genuine concerns for human development. The cultivation of this new generation of schoolteachers should be largely the responsibility of the comprehensive university. The Role of Higher Education in the Development of Education: The Case of Qatar.

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Formal education in Qatar started in 1951-2, and ever since there has been an increase in all directions as we can see in table 1.

TABLE (1)

Development of Education in Qatar

Years	Pupils			Teachers			Schools		
	M	F	Total	M	F	Total	Boys	Girls	Total
1951/2	240	-	240	6	-	6	1	0	1
1961/2	4607	2450	7067	376	144	520	46	21	67
1971/2	11883	9098	20979	670	510	1180	48	41	89
1981/2	21908	20702	42610	1703	2092	3795	77	72	149
1991/2	30443	30039	60482	2453	4469	6922	97	97	194
1995/2	32878	33281	66159	2422	5449	7871	106	101	207

The increase in the number of pupils over the last fifty years reflect the growing interest and awareness of the importance of education in social mobility and human development. However, sharp increase in the number of female teachers is very much of a direct consequence of the process of higher education as we shall address later.

Higher Education in Qatar started in 1973/4 with an inauguration of Faculties of Education: one for men and one for women. This stemmed from the fact that education was considered, and still is, a key factor in the economic and social future of the country. Priorities were addressed to the expansion of the educational services and consequently of the teaching body required to staff it. The principal target of higher education in Qatar at the time was to graduate teachers with an in educational qualification to meet the growing demand for educationalists in the country. However, in 1977/8, as the demand for qualified personnel in other fields became evident, the University of Qatar was established with additional faculties: Humanities and Social Sciences, Science, Sharia and Islamic studies.

In 1980, and in 1985, the Faculty of Engineering and the Faculty of Administration and Economics followed respectively.

The following tables reflect the increase in the number of graduates over the past two decades:

The Contribution of Higher Education to the
Education System as a Whole

Development of Graduates Numbers (M/F) of Universities of Qatar During The Academic
Years 1976/77 to 1995/96, Distributed to According to Nationality & Sex

Nationality & Sex	T			N.Q			Q		
	T	F	M	T	F	M	T	F	M
1976/77	198	106	92	99	40	59	99	66	33
1977/78	241	140	101	77	37	40	164	103	61
1978/79	230	170	60	83	64	19	147	106	41
1979/80	336	215	121	125	69	56	211	146	65
1980/81	378	233	145	1422	72	70	236	161	75
1981/82	594	417	177	235	139	96	359	278	81
1982/83	618	407	211	279	145	134	339	262	77
1983/84	702	484	218	272	132	140	430	352	78
1984/85	774	465	309	330	131	199	444	334	110
1985/86	857	543	314	284	108	176	573	435	138
1986/87	889	570	319	271	113	158	618	457	161
1987/88	827	553	274	267	128	139	560	425	135
1988/89	934	665	269	276	130	146	658	535	123
1989/90	876	609	267	237	125	112	639	484	155
1990/91	930	625	305	302	135	167	628	490	138
1991/92	1055	764	291	300	149	151	755	615	140
1992/93	980	725	255	234	131	103	746	594	152
1993/94	1041	774	267	205	123	82	836	651	185
1994/95	1124	832	292	207	133	74	917	699	218
1995/96	1225	900	325	182	112	70	1043	788	255
TOTAL	4612			4407	2216	2191	10402	7981	2421

Total Number of Graduates (M/F) of University of Qatar During The Academic
Years 1976/77 to 1995/9, Distributed According to Faculty, Nationality & Sex

Nationality & Sex Faculty	T			N.Q			Q		
	T	F	M	T	F	M	T	F	M
Education	7903	5937	1966	2659	1411	1248	5244	4526	718
Humanities & Social Sciences	2788	1779	1009	531	258	273	2257	1521	736
Sciences	1739	1107	632	843	447	396	896	660	236
Shari'a, Law & Islamic studies	1319	980	339	243	86	157	1076	894	182
Engineering	306	0	306	86	0	86	220	0	220
Administrative Sciences & Economies	512	259	253	42	13	29	470	246	224
Technology	242	135	107	4	1	3	238	134	104
TOTAL	14809	10197	4612	4408	2216	2192	10401	7981	2420

Total Number of Graduates (M/F) of University of Qatar obtaining Degree of Bachelor
During 1976/77 to 1995/96 Distributed According to Specialization , Nationality & sex

Nationality & Sex Faculty	T			N.Q			Q		
	T	F	M	T	F	M	T	F	M
Education	5771	4685	1086	1823	1237	586	3948	3448	500
Humanities & Social Sciences	2616	1687	929	511	239	272	2105	1448	657
Sciences	1717	1096	621	833	447	386	884	649	235
Shari'a, Law & Islamic studies	1294	957	337	239	82	157	1055	875	180
Engineering	306	0	306	86	0	85	220	0	220
Administrative Sciences & Economies	512	259	253	42	13	29	470	246	224
TOTAL	12216	8684	3532	3534	2018	1516	8682	6666	2016

The impact of Higher Education or Education in Qatar

A. Quantitative contribution:
Providing teaching staff, Tables 1.2.3:

TABLE (1) (2)
Development of Qatari Employees

Year	Males	Females
1956-1976	256	280
1976-1980	38	646
1981-1985	52	1008
1986-1990	177	1711
1991-1996	587	1725
	1110	5370
Total	6480	

TABLE (2) (3)
Qatari Graduates from the
University of Qatar
(all levels)

Year	Males	Females
1976-1980	275	582
1981-1985	484	1661
1986-1990	712	2391
1991-1995	950	3347
	2421	7981
Total	1042	

Table (3) (4)
Qatari Graduates from various Faculties
(Bachelor Degrees)

Faculty	Males	Females	Total
Education	500	3448	3948
Humanities	657	1448	2105
Sharia and Islamic Studies	180	875	1055
Science	235	649	884
Engineering Administration and	220	-	220
Economics	224	246	470
Total	2076	6666	8682

It is interesting to note that the increase, in the number of Qatari female employees (mainly teachers, head mistresses) is far more than the increase in the number of Qatari male ones. This is due to two factors:

- The greater number of female graduates from the University of Qatar and in particular from the Faculty of Education;
- The conservative nature of the country where the segregated school system provides females with a more socially acceptable atmosphere to work.

Although the total amount of boys is very much close to the total number of female pupils, the number of female teachers is more than double that of male teachers. This is due to the fact that grade 1-5 of both sexes are taught by female teachers who are considered to be more efficient in dealing with kids at this stage. The total number of pupils at this stage is 10083 which forms 37% of pupils at the primary stage and 66159 (15.2%) of the total number of pupils registered at the schools at all levels.(5)

Comparing the different tables we can conclude certain points:

1. The total number of female employees at the school system is very close to the total number of female University graduates. This indicates that socially and culturally the working environment at school is most appealing to the female graduates and most acceptable to various streams in the society.
2. The sharp increase in the number of male employees since 1991 onwards is due to a Legislative Act by which all male graduates from Art Faculties (Education, Humanities and Sharia) are to join the Ministry of Education. Prior to this Act, most male graduates preferred to work in other areas and that explains the low number of Qatari male teachers prior to 1990, compared to the number of male graduates.

B. Qualitative Contribution:

1. Curriculum Development

Prior to 1973/4 (the beginning of Higher Education in Qatar, curriculum were revised and developed by experienced teacher(s) only. But since 1973/4 up until now, there has been a fruitful cooperation between the curriculum department at the Ministry of Education and academic staff members of the Faculty of Education, in addition to UNESCO experts who were available in the very early stages of the Higher Education in Qatar. This effort resulted in revised curriculum in the following subjects:

- ❖ Maths
- ❖ English
- ❖ Science
- ❖ Social Sciences
- ❖ Arabic
- ❖ Sharia

2. In keeping with the main objective of the Faculty of Education, most of the research on general education in Qatar was conducted fully or partly by members of the Faculty. For example, in the academic year 1997/8, the total number of seminars and articles delivered and published by the associates of the Faculty were 76; of these 63 (83%) were related to general education. Looking at the records, the same trend is evident since the beginning of the Faculty in 1973/4.(7)

Moreover, considering the fact that universities are not confined to the transmission of knowledge from one generation to another but are expected to meet the demands and needs of the various institutions in the society, the University of Qatar established four independent research centres. The centre has been heavily involved in conducting researches in different domains important to education. For example, in the past ten years they participated in many educational studies, such as:

- * The role of education in enhancing the value of work (1997);
- * Creativity and obstacles in education (1995);
(indications in some primary schools in Qatar)
- * Teacher's awareness for the role of human relationships of schoolmasters in schools in Qatar (1995).

3. Workshops and Training Courses

Every year, the Ministry of Education conducts different workshops and training sessions in various subjects in order to keep with up-to-date state of art. Most, if not all, of these are executed and implemented by members of the University of Qatar. For example, in the academic year 1996/7, there were 31 workshops and training programmes, and 14 (45%) of them were fully or partly implemented by staff members at the University of Qatar. (8)

1. Evaluation

There have been two evaluation reports about the Ministry of Education. The first one was conducted in 1990 by a team of UNESCO experts in addition to some top officials at the University of Qatar at the time. The second was conducted in 1995 by the High Commission for Educational Policy. The Commission consisted of nine members; seven of them were staff members of the University of Qatar and the other two were from the Ministry of Education. The majority of the field team members were associates of the University of Qatar. The second report brought about changes of officials at the highest level at the Ministry of Education.

There were the most prominent contributions of the University of Qatar in general education. But did these contributions bring about a better quality of education? It is a very difficult question to answer.

Notes

1. Qatar. Ministry of Education *Annual Report, 1995/6*
2. Qatar. Ministry of Education *Annual Report, 1995/6*
3. *Statistical Year Book Report, 1996/7* University of Qatar.
4. *Statistical Year Book Report, 1996/7* University of Qatar.
5. Qatar. Ministry of Education. *Annual Report, 1995/6*.
6. Hussein Muhammad Al-Mutawa et al, *General Education in G.C.C. countries*, Kuwait, 1999.
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8. Qatar. Ministry of Education. Education Training Section, *Annual Report, 1996/7*.

Eliminating gender disparities in education: the role of higher education

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Introduction

Over the years, higher education has come to be associated with the creation of knowledge through research, leadership in the development of new ideas and visions of development, human resource development through education and training, and capacity building for greater participation in socio-economic development. It is also widely recognized that education is a necessary and sufficient prerequisite for sustainable development. It is in this context that higher education assumes such a significant place in relation to other levels of education. The essential relationship between higher education and other sectors has been clearly drawn to our attention by Philip Hughes in his introduction to the theme of this panel - 'Higher Education and the Education System as a Whole'. Hughes observes that higher education institutions depend on the other sectors for their students and staff. In their turn, these institutions 'develop the new knowledge and understandings, and also the new paradigms, by which we seek to explain and predict, as well as preparing for many of the professions.' In our view, higher education institutions should set the pace for national development in general and for education in particular.

In concurrence with Article 26, paragraph I of the Universal Declaration of Human Rights statement 'Everyone has the right to Education' and that "'Higher Education shall be equally accessible to all on the basis of merit,' and recognizing the disadvantaged situation of girls and women in education, FAWE has assumed the mandate to promote gender equity in Africa at all levels of education and work toward the achievement of Education for All (EFA).

In recognition of the crucial role that women play in development, FAWE has identified its overall mission as *'helping to ensure that women and girls are an integral part of the intellectual and technical resource-base needed for the survival and prosperity of Africa.'* FAWE works with ministries of education and universities in Africa to ensure that:

- ❖ gender equity is in-built into all education policies in particular and in all programmes of national development generally, and that where gender imbalances in education persist, positive and specific short-term affirmative action is taken to redress them;
- ❖ and that there is continuous and rigorous debate on, and review of, all social policies that impinge on how education policy is developed and implemented.

Of particular concern, is the mainstreaming of gender in tertiary institutions and the subsequent impact on the rest of the education system

This presentation addresses two aspects highlighted in Professor Hughes' paper:

- ❖ recognizing the high priority given by **UNESCO** at recent meetings to the importance of the education of girls and women to the whole process of development, higher education should seek, within its own institutions and elsewhere, to assist in this process;
- ❖ universities should give particular attention to the links between research in education and the practice of education, noting currently the lack of effective impact and the pervasive need to find more efficacious and efficient processes to improve learning.

The paper is divided into four parts. The first part addresses the major issues related to the achievement of gender equity in education and the second discusses FAWE's programme for higher education. Part 3 discusses strategies and examples of good practice currently underway including those initiated by FAWE, while Part 4 contains some recommendations and our vision for the future. The conclusion contains a summary of the salient points raised in the paper.

It is our conviction that the relationship between higher education and other levels can be made more dynamic by ensuring that the products of primary and secondary education reflect the ideas of higher education and society, of which gender equity ought to be an essential component.

Part I - Major issues related to gender equity in education

1. 1. Gender mainstreaming

Although sufficient data exists on gender disparities in education at all levels and their causes, the intellectual seats of learning in Africa do not appear to relate this data to their own situation. This leads to a general lack of gender mainstreaming in education policies and programmes-curriculum, pedagogy, examination - especially in science, mathematics and technology (SMT). Gender equity issues are not addressed with the seriousness they deserve. At this level, a significant majority of teaching staff and faculty do not take gender issues seriously. The few who take it seriously and are up-to-date with the relevant research and documentation on gender issues are often perceived as agitators over a non-issue.

In addition, gender studies are generally perceived as the prerogative of certain departments and individuals. Unless universities and institutions of higher learning have a major shift in their perception of the importance of mainstreaming gender issues their products-teachers, curriculum developers, managers of education--at lower levels, will not have the necessary impact of correcting gender imbalances at the lower levels of education.

1.2. Integration of higher education with the world of work

For both females and males, there is a general tendency to concentrate on academic subjects and theoretical aspects of education to the exclusion of other crucial aspects related to the acquisition of knowledge and skills for life. A significant number of graduates are not adequately prepared for integration into their societies. This places the females at a greater disadvantage given their biological roles, and other societal roles that are not necessarily optional, in later life. The goals of higher education should complement those of education at lower levels, which include the production of an all-round stable personality.

In Africa, there is no evidence that higher education development and improvement of the quality of life of the neighbouring environment. One would expect that the progressive ideas generated from within the diverse university departments would find their way into the society around the university (e.g. the banana seeds generated by a university professor would be expected to be grown by the community around the university). The environment of higher institutions of learning fails miserably to impact on or to infiltrate their surroundings. Other areas of failure include changes in the labour market structure and technological advances. No wonder universities in Africa are frequently viewed as ivory *towers*.

In addition, a majority of university graduates have not been exposed to the practical every-day realities of the disciplines into which they have been enrolled. A significant number of universities have abandoned practical training, due to financial constraints.

1. 3. Inadequate access to education

While recognizing the phenomenal quantitative growth of education at all levels in Africa, female participation in general continues to lag behind in all disciplines and more so in SMT. Any decline in participation in education is greater for females than for males. For females in Africa, access to higher education is hampered by their under-achievement in primary and secondary school levels, and lack of adequate places in the most competitive disciplines. Several factors contribute to low access and under-achievement for girls at primary and secondary level. These include:

- socio-cultural practices and attitudes including early marriage, parental perceptions of the value of the education of girls;
- poverty;
- unfriendly school environments, including safety and security in and out of school;
- gender insensitive teachers, school managers, curricula and examinations.

Unless these and the other factors hindering access and achievement for girls at primary and secondary school levels are addressed urgently, female participation and access to higher education will remain low. Particular emphases will have to be placed on access and achievement in science, mathematics and technological subjects at these levels.

1. 4. Quality and Relevance of education

There is evidence that there is a general decline in the quality of education all over the world. For example, in Africa, in the 1960s universities were centres of productive intellectual debate and produced ideas that impacted on the society. At that time, African scholars distinguished themselves with creative writing that had social relevance and there were cultural festivals that linked modern development with traditional ideas. University staff participated actively in setting the political, educational and economic agenda for their countries. Political leaders would engage in intellectual dialogue with staff and students at higher institutions of learning.

The linkages between governance structures and academia seems to have been weakened over the years. There is a general mistrust which seems to have contributed significantly to the decline in the quality of education. For example, most of the research undertaken by the universities does not feed into policy formulation, implementation and evaluation. At the universities, the quality of the content, modes of delivery and the general learning environment does not measure up to the realities of the present world.

University systems seem slow to adapt to changing environments and this makes them isolated from the rest of the society. The quality of education offered does not, any longer, appear to meet the labour market demands. The growth in enrollment, which in many cases is unplanned for, has taken its toll on the quality of learning and teaching because it is not complemented by increases in facilities, equipment and staffing.

At the lower levels of education, many studies have shown that the quality education, particularly for girls, has significantly declined. The decline in state' funding to the education sector has contributed to the degradation of the school environment, lack of equipment in schools, apathy among the teaching staff and poor school management. This general decline in the quality of education affects girls more than it does boys. Overcrowding in African classrooms at all levels of education contributes to the apparent neglect of the special needs of girls in education.

Another crucial factor related to the provision of quality education is the training of teachers, both pre- and in-service, which, in a majority of African countries, is a function of faculties of education within universities. It is not always the case that staff involved in teacher preparation are themselves trained teachers.

1. 5. Adapting to Technological Advances

New developments in information technology, while offering answers to questions **related to quality in education**, are likely to aggravate the issue of disparities. For **example, only a few universities are on the Internet**, while this is a common facility in certain homes. Technology, such as computers, is also first introduced in universities in science faculties, such as engineering and computer science, in which women are in the minority.

Among the challenges facing partners in education and technology, is the issue of access to emerging technologies -how to create opportunities for all countries and groups within each country, especially the marginalized groups including girls -to gain access to, and develop technological applications related to their own needs, which they can also share with others. Access also implies effective linkages with relevant local and global knowledge bases and networks, availability of affordable and easily sustainable infrastructure and technology, with particular relevance to disadvantaged groups and remote rural populations, and a critical mass of technological, institutional and human resources to support sustained development and practice.

Part II - FAWE's programme for higher education

FAWE considers higher education as an important part of the Work Programme. Out of sixty full members of FAWE, twenty are vice chancellors of African universities and university-based members spread across twenty-seven countries in sub-Saharan Africa. The vice chancellors and university-based members constitute a committee which meets twice a year to discuss issues and concerns related to higher education and strategies to address the concerns. This committee meets twice a year. Attended by twenty participants, the meeting in February 1.998 identified key areas of focus in the promotion of girls' education at the tertiary level.

Under the line of work, *Strengthening female education at the tertiary level*, activities fall under three broad areas: (a) policy and research, (b) strengthening leadership and capacity building; and (c) supporting networking.

II. 1. Policy and research based activities

The activities in this area include:

- (a) *The development of a University Data Profile*: The profile will be used to collect data from individual universities in both anglophone and francophone sub-regions. Nine universities will participate in the pilot phase- University of Conakry, Guinea; University of C6te d'Ivoire; University of Mali; University

of Niger; University of Toliara in Madagascar; University of Buea in Cameroon; University of Lagos, University of Malawi and University of Natal. The main objectives of the project is to collect data on issues such as access, persistence, performance, women managers and university expenditures. It will be analysed and used to provide a comparative database at the national, sub-regional and regional levels. It is also intended to provide a basis for raising issues on female education.

- (b) *A survey of current gender programmes and affirmative action initiatives and an analysis of student and staff regulations and practices in a selected sample of universities.* This project is being carried out under a programme of co-operation with the Association of African Universities (AAU) and is aimed at taking stock of measures already being undertaken by African universities to redress gender imbalances and to assess the impact of such measures. The results of the survey will be disseminated to vice-chancellors and policy makers Africa-wide, with the aim of adaptation and possible replication.
- (c) *Creation of a database of female experts in Sub-Saharan Africa:* Also carried out under a programme of co-operation with AAU, the database is intended to contribute to the pool of women experts and raise the visibility of women professionals for equitable inclusion in decision-making processes and setting the development agenda in all relevant fora.
- (d) *Dissemination of information on sexual harassment:* In recognition of the high frequency of sexual harassment cases in universities in Africa, FAWE has identified three universities-Kenyatta University in Kenya, University of Malawi and University of Cape Town as institutions willing to address the issues on sexual harassment. They will be assisted to assess the impact of their interventions, and document and disseminate already available information to other institutions with a view toward encouraging those willing to take action to develop their own programmes and interventions.

11. 2. Activities to strengthen capacity building

FAWE supports women at the tertiary level to present papers at international fora. It is also in the process of designing a programme of training women in universities in proposal development. This is intended to equip them with the necessary skills to compete more favourably for available grants.

11. 3. Supporting networking

FAWE participates in conferences on higher education. In particular, FAWE was represented at the Dakar Conference in April 1997 and will send a delegation to the World Conference on Higher Education in Paris in October 1998.

FAWE supports the creation of gender studies units in African universities, as long as such units permeate the work of other university departments towards developing gender-responsive programmes in higher education. FAWE is currently supporting such an effort at Chancellor College, University of Malawi, by enabling the college principal and staff to undertake a survey of gender studies programmes in other African universities to determine the impact such programmes have on gender studies generally and other university studies.

The recently forged partnership between FAWE and the media will, no doubt, set in motion the basis for widespread knowledge of issues affecting all levels of education, and the changes and reforms necessary for improvement. FAWE recognizes the power of the media in education, information dissemination, and especially its power in changing social attitudes. Already, the media in Africa is committed to providing in-depth analysis of gender disparities in education, their causes and strategies for their elimination. The media at this conference should focus on the role of higher education institutions in eliminating such disparities at all levels of education, especially at the tertiary level.

In order to promote media excellence, FAWE has launched an award for media Excellence (FAME) in Ghana, Kenya, Senegal and South Africa.

Part III . Other efforts To address gender imbalances in higher education

111. 1. Affirmative action programmes

FAWE recognizes the importance and necessity of affirmative action (AA) programmes as short-term measures for correcting gross imbalances in crucial areas of development. Education is one such area where girls and women have historically experienced the disadvantages described above. FAWE is gratified to note that many African countries have initiated special AA programmes that are beginning to make a major difference in the education of girls and women. The most common example is that of providing bursary programmes targeting girls, in view of their socio-cultural disadvantages at the household level. The other, adopted by several institutions, including Makerere, Nairobi and Dar es Salaam Universities in Eastern Africa, is that of admitting girls with a mark below the cutoff, but within the qualifying bracket for university entrance.

The University of Dar es Salaam, among others, has a special crash academic programme aimed at up-grading girls' performance in mathematics and science to enable them to qualify for university entrance. This particular effort recognizes the disadvantaged situation of girls in those subjects at lower levels of the education system deriving from lack of facilities, equipment, poor teaching and discouragement.

111. 2. Monitoring

It is now widely accepted that the presence of, and interaction with, role models inspires girl students towards improved performance. A number of institutions of higher learning in Africa and NGOs, such as associations of university of women and other professional groups, now have mentoring programmes which bring female students in touch with women professionals for this purpose.

The Ghana Science clinics are the best known of such programmes. Established in 1987, the Science Clinics had several objectives, two of which are relevant to the subject of this paper. These are:

- make participants aware of gender stereotypes that tend to inhibit girls/women from entering science, technology and mathematics education (SMTE) occupations and how women can overcome these inhibitions;
- to reassure participants, through the role models, that women can succeed in SMTE-based occupations and, at the same time, maintain normal marital and family relationships.

The most significant impact of the clinics is the change in attitudes observed among the post-clinic girls who have shown an increased motivation to pursue science and subsequent careers in science and technology-based professions. For Ghana as a nation, the most significant impact of the clinics is the national appreciation of the need to do something to improve the participation of girls and women in science. The clinics led many parents, community leaders and policy makers to appreciate the problem of the girl-child in education in general, and in science in particular.

Similarly, a recent evaluation of a FAWE-funded project, 'Girls in science and Mathematics', in Kenya, showed that speeches from role models and visits to schools by subject specialists greatly enhanced performance in those subjects.

111. 3. Pre- University programmes

A number of universities have recognized-the, need to- provide bridging courses for girls who otherwise would not have qualified to join university. Such a programme has been initiated at the University of Dar es Salaam, where girls are admitted into a pre-university programme for eight months. They are given intensive coaching in science subjects that makes them qualify to enter the university.

111. 4. Outreach programmes

There is a large pool of expertise in universities which can easily be extended to the lower levels through outreach programmes. Just like agricultural universities reach out to farmers, universities should recognize the great demand for expertise to solve gender- imbalance problems in secondary and primary school levels. The TUSEME project at the University of Dar es Salaam is one example of such outreach programmes. Using the Theatre for Development approach, TUSEME enables secondary school girls to speak out on problems hindering their academic performance. TUSEME clubs have been established in the schools to bring up and solve these problems. In an annual festival, the University TUSEME brings together the participating schools to share their problems and strategies through performances, workshops, exhibitions, study tours, role model presentations and films.

111. 5. Curriculum development and review

On a moderate scale, the humanities have in recent times embraced incorporation of gender issues, while the sciences have still resisted any attempts to address gender issues. For example, it is now acceptable to depict the heroic roles of women as well as men in the struggle for liberation in Africa. African literature studies and examinations also refer to the way gender roles are depicted by African writers. Such developments are negligible in scientific fields. The few heart-warming exceptions include the Jomo Kenyatta University of Agriculture and Technology extra-mural courses for women farmers. Heart-warming because of its recognition of the crucial roles of women in agricultural production in Kenya.

111. 6. Gender sensitization and production of tools

This process has been enriched by the participation of university academics as reviewers and writers. The authors of the FAWE gender analysis tool 'The ABC of gender' are both university lecturers who have acquired their skills outside their work domain. The same is true of the authors of the FAWE/UNESCO Gender Training Modules for Policy Makers in Education. These tools have already had an impact on other levels of education , while their authors' institutions remain, by and large, conservative and unresponsive to gender concerns in education.

111. 7. Research

This important concern of institutions of higher learning has been grossly affected by reduced support of African governments to universities. However, even in cases where important research is undertaken as part of fulfilment of graduate programmes, such research remains exclusively for academic purposes and is hardly ever disseminated to those who could use it to impact on other levels of education and sectors. FAWE's on-going survey on gender studies in education is revealing important findings on the participation of girls and women from micro-studies undertaken by students and faculty members, bound into B.A., M.A. and Ph.D theses, but not available to the public.

There exists a persistent gap between research undertaken by universities "Ad practice. There is an urgent need for closer interaction between universities and policy makers to ensure that the policy-making function is enriched by the data being created through research. Universities and research institutions

must also engage in serious dissemination of crucial knowledge deriving from research to essential target groups in formats and media appropriate to them. FAWE has gained a wealth of experience in this process and is already impacting on education policies in Sub-Saharan Africa by ensuring that existing data is appropriately disseminated to policy makers.

111. 8. Safety and security programmes

The safety and security of girls and women in education has been identified as a major obstacle to their education that needs addressing at all levels. The University of Cape Town, Kenyatta University and the University of Dar es Salaam are among the few institutions of higher learning to treat the issue with the seriousness it deserves by providing fora for public discussion and setting up official mechanisms for dealing specifically with sexual harassment. The rampant incidence of sexual harassment of female students by their male counterparts and lecturers, and the neglect of the issues by university management sets a very poor role model for other levels of education, especially since graduating students convey similar attitudes to these other levels, as teachers and managers.

111. 9. Guidance and counselling

Teacher training programmes of university faculties of education appear to neglect the very important role of the teacher as a counsellor, and concentrate more on the teaching of academic subjects. There is an unwarranted assumption that schools will have a professional counsellor to take care of the special needs of learners -girls and boys. This category of professionals/counsellors is non-existent in most African countries, which leaves the students with special needs unattended. Lack of guidance and counselling skills also leaves graduating teachers totally unprepared to handle the overall development of their students.

The rampant unruly behaviour of university students in many African universities is also partially due to total neglect of personality development and counselling programmes at these institutions. As observed earlier, most lecturers and professors hold academic qualifications but are not trained as teachers or counsellors. Even where professional counsellors exist, they are too few to adequately attend to the needs of all students.

Part IV: Recommendations and vision for the future

Higher education must remain and continue to be an integral part, a very important part of the total education system. It needs to be a trend-setter in the process of education, providing for an all-round development of the individual, closing any gaps in knowledge and practice that would hamper the individual's social, economic and other development, while stifling the development and the creativity that is needed for continued renewal. Our vision of the future is that of higher education institutions assuming their rightful role as centres of knowledge and excellence, committed to creating direct links and deliberate interaction with other levels and sectors for mutual enrichment and benefit.

In the last two decades, a lot of research has been conducted by universities. Many of these research reports and theses are available in university libraries and other documentation centres. What is lacking is linking these research findings to policy and practice.

The gender issue is central to all development. Institutions of higher learning need to ensure the mainstreaming of gender in all their policies and programmes. Gender-sensitive research would then become meaningful as a tool for development in all other sectors and levels. We see the need for:

- Revamping the research capacities of higher education institutions in Africa; and
- Linking research, policy and practice.

IV. 1. Revamping research capacities

There is an urgent need for continuous collection and analysis of data on all aspects of education, and higher education institutions are well placed to perform that role. Concrete data on access, retention and performance must continually be made available to policy makers.

IV. 2. Linking research, policy and practice

In order for education systems to be more efficient, there is an urgent need to link research, policy and practice so that, when policies are enacted and implemented, the data collected by higher education institutions is used to feed back into the policy process for the necessary adjustments. Teachers and school managers must be continually influenced to change teaching and management practices in keeping with new advances in technology, societal and developmental needs.

Part V: Conclusion

There is evidence that higher education institutions in Africa are generally characterized by high quantitative expansion and serious financial constraints. They have also been slow in adapting to changing social and economic environments. As a result, there has been little or no diversification of structures or programmes. Many universities still teach and offer the same courses as they did in the 1960s, while the traditional mentality that the university is a male domain persists.

At the dawn of the 21st Century, African universities, and indeed universities and institutions of higher learning all over the world, cannot escape the major challenges of democratization, globalization, regionalization and marginalization. Faced with such challenges, universities and institutions of higher learning require a new vision that combines two aspects. First, the demands for universal acceptance of programmes that are all inclusive (gender sensitive) and, second, the demands of more relevant programmes that prepare students for life. The higher education institutions must continue to set the pace for the social political and economic development of each country and contribute significantly to the education of the country's citizens.

All countries must continue to work towards redressing gender imbalances in education at all levels. As stated in Article 33 of the World Declaration on Education for All, *'The most urgent priority is to ensure access to, and improve the quality of the education for girls and women, and remove every obstacle that hampers their participation.'*

Removing the obstacles is a continuous process that requires the development of strong partnerships and, most importantly, the development of a common vision for education.

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The ideas and opinions expressed in this document are those of the author and do not necessarily represent the views of the Secretariat

Introduction

The results of the UNESCO World Conference “Confintea” on Adult Education in July '97 in Hamburg developed activities in many areas all over the world.

One of the results relates to this Conference of Higher Education in Paris, October '98. An international working group of university adult education met in Hamburg to point out the importance of the role of universities in the context of adult education. At this conference on Higher Education and its discussion of future concepts of lifelong learning we want to contribute our experience on adult education in universities. Universities will be part of this development. They not only offer education on the one hand but also are being transformed into an institution of lifelong learning itself.

In cooperation with the “Department of Adult and Continuing Education and Extension” of the University of Mumbai, India, the International Council of University-based Adult Education, the UIE organized in April 1998 an expert meeting on “Lifelong Learning for All: The Role of Higher Education and Universities” in Mumbai as a follow-up of “Confintea”. Participants from all over the world (Australia, Canada, China, Germany, India, Italy, Japan, Nicaragua, South Africa, Sudan, UK and USA) were invited to exchange their experiences in the context of lifelong learning at universities. They also elaborated recommendations of how to transform universities into lifelong learning institutions. A special purpose of the meeting was to establish a link between the two mentioned world conferences.

On the basis of country experiences presented by the participants a statement on lifelong learning and the reform of higher education was elaborated and adopted. The document is focusing on the growing importance of the concept of lifelong learning against the background of increasing tendencies of globalization on different levels. Besides the traditional function of knowledge production and dissemination through research and teaching, community engagement and creation of new forms of partnerships with external actors and bodies are recognized as a central task for universities within lifelong learning.

The Mumbai Statement on Lifelong Learning, Active Citizenship and the Reform of Higher Education

We, from all regions of the world, university - based adult educators, scholars and other specialists in the field of lifelong learning, together with representatives of non-governmental organizations having begun working at the UNESCO International Conference on Adult Education in Hamburg, Germany, July 14 - 18, 1997, and now meeting at the Department of Adult and Continuing Education and Extension of the University of Mumbai in Mumbai, India April 21 - 23, 1998 in order to prepare for the World Conference on Higher Education: Higher Education in the 21st Century in Paris, in October of 1998,

Recalling the words of the **Hamburg Declaration** of July, 1997 of the UNESCO International Conference on Adult Education,

“Adult education thus becomes more than a right; it is a key to the twenty-first century. It is both a consequence of active citizenship and a condition for full participation in society. It is a powerful concept for fostering ecologically sustainable development, for promoting democracy, justice, gender equity, and scientific, social and economic development, and for building a world in which violent conflict is replaced by dialogue and a culture of peace based on justice. Adult learning can shape the identity and give meaning to life. Learning throughout life implies rethinking of content to reflect such factors as age, gender equality, disability, language, 'Culture and economic disparities.’”

Taking into account point 19 in the **Agenda for the Future** adopted in the- same UNESCO Conference,

We commit ourselves to:

Opening schools, colleges and universities to adult learners:

- ❖ by requiring institutions of formal education from primary level onwards to be prepared to open their doors to adult learners, both women and men, adapting their programmes and learning conditions to meet their needs;
- ❖ by developing coherent mechanisms to recognize the outcomes of learning undertaken in different contexts, and to ensure that credit is transferable within and between institutions, sectors and states;
- ❖ by establishing joint university/community research and training partnerships, and by bringing the services of universities to outside groups;
- ❖ by carrying out interdisciplinary research in all aspects of adult education and learning with the participation of adult learners themselves;
- ❖ by creating opportunities for adult learning in flexible, open and creative ways, taking into account the specificities of women's and men's lives;
- ❖ by providing systematic continuing education for adult educators;
- ❖ by calling upon the World Conference on Higher Education (Paris, 1998) to promote the transformation of post - secondary institutions into lifelong learning institutions, and to define the role of universities accordingly.

Bearing in mind the words of Federico Mayor, Director - General of UNESCO in announcing the aim of the World Conference on Higher Education as, in part, to

... “lay down fundamental principles for the in - depth reform of higher education systems throughout the world”.

And Article XXIII of the Policy Paper of the World Conference of Higher Education, that

...“Achieving basic education for all and enhancement of opportunities for lifelong learning constitutes UNESCO's priority in the field of education”.

Hereby present the following statement:

Profound changes are taking place both locally and globally. They can be seen in the globalization of economic systems, in the rapid development of science and technology, in the age structure of our societies and in the emergence of information and knowledge - based societies. The world also faces deepening levels of unemployment, patterns of uneven development, a growing gap between the richest and poorest countries, a global ecological crisis, and tensions between social groups based on culture,

ethnicity, gender roles, religion and income. These trends are reflected in universities and other institutions of higher education, which are struggling to cope with new opportunities and demands, often with declining resources at their disposal. These complex contexts create the stage where higher education institutions are being required to play new roles in the perspective of lifelong learning. The imperatives of education throughout life are driven by the diverse demands of the global economy, and those of equitable, and sustainable societies. For the majority to benefit, we recognize the interrelatedness of the economic, the social, the political and the ecological.

2. Lifelong learning has become a key concept in the thinking about education and training worldwide. While we recognize that lifelong learning is a natural part of the lives of all women and men throughout the world, and that it happens through many other types of institutions, such as the workplace community - based locations, libraries, trade unions, and other social movements, the focus of our statement is on the understanding of lifelong learning, and its implications for institutions of higher education. Lifelong learning can be based on both instrumental values such as the need to maintain professional currency and to have an internationally competitive workforce, and on more liberal and humane considerations such as the enrichment of society and people's fulfilment as individual citizens.
3. We see a key purpose of lifelong learning as democratic citizenship, recognizing that democratic citizenship depends on such factors as effective economic development, attention to the demands of the least powerful in our societies, and on the impact of industrial processes on the caring capacity of our common home, the planet. The notion of citizenship is important in terms of connecting individuals and groups to the structures of social, political and economic activity in both local and global contexts. Democratic citizenship highlights the importance of women and men as agents of history in all aspects of their lives: ***The act of learning, lying as it does at the heart of all educational activity, changes human beings from objects at the mercy of events to subjects who create their own history*** (quoted from the Declaration of the Fourth UNESCO Conference on Adult Education, Paris, 1985).
4. Conceptually, lifelong learning most distinctively draws our attention to the provision of learning throughout the lives of women and men and to the development of lifelong learning competencies for everyone. As an educational practice, lifelong learning also recognizes diversity and differences among people as potentially productive components of the teaching and learning processes. Lifelong learning also supports the growing trend towards cross - disciplinary research, teaching -and learning. And when we focus on the word 'life' within the concept of lifelong learning, we are drawn towards understanding learning as part of and related to the full ecological dimensions of our existence.
5. Lifelong learning is about the interaction between learners, educators and diverse knowledges. The long tradition in adult education of supporting learning opportunities for excluded groups of women and men in our societies draws attention to the rich and different ways of knowing and representing knowledge within our societies. As the construction, understanding and sharing of knowledge is the most fundamental purpose of universities and other institutions of higher education, so a full understanding of lifelong learning calls on us to examine many of our assumptions about what is taught and why.
6. While not the only such institutions, institutions of higher education have a special responsibility and competency for the production and dissemination of knowledge. Taking the ideals of learning throughout life seriously has broad implications for our understanding of what knowledge is, what teaching is, what research is and what community engagement is. It has been sometimes suggested that dominant bodies of knowledge within our institutions of -higher education represent a partial and, in an historical sense, a 'colonized' body of knowledge. Lifelong learning supports the de-colonization of the mind by encouraging the re-examination of relationships between scientific, often understood as 'official' knowledge, and the specific diverse knowledges of local communities,

cultures and contexts. Special attention needs to be given to supporting indigenous forms of knowledge and ways of knowing as part of the original and ancient intellectual heritage of our world.

7. Lifelong learning has profound implications for the academic, administrative, community partnership and financial aspects of higher education. Some of the principles of lifelong learning that will influence institutional transformation include the acknowledgment of the lived experiences of all learners, women and men, respect for difference and diversity, flexibility of provision recognizing the complex nature of adults' lives, sensitivity to both cognitive and affective outcomes, awareness that knowledge exists in all parts of societies and among all women and men of our world and that such knowledge is to be shared in a spirit of mutual respect.
8. Changes and adjustments to academic life implied within lifelong learning include such practices as flexible and responsive systems of access, delivery, curricula and accreditation which take adult learners' backgrounds, daily schedules, prior learning and life contexts into account. Counseling and guidance, for instance, may need to be available at later hours or in community - based settings for ease of access. The education of university - level professionals needs to be rethought, taking into account initial university education and continuing learning throughout life. Importantly, the faculty and administrative staff of institutions of higher education need support and personal development opportunities in the light of changes due to the implementation of lifelong learning.
9. The transformation to genuine lifelong learning institutions requires a holistic approach which:
 - a) supports the institution becoming a lifelong learning community itself;
 - b) integrates academic, financial and administrative elements;
 - c) provides structures which are responsible for organizational, staff, student and curriculum development and community engagement; and,
 - d) aligns the various supportive structures such as academic information systems, library provision and learning technologies to the new mission of universities in learning societies.
10. Broader forms of community engagement or partnerships with both the world of work and with diverse groups of new learners will be important. Community service is called for, in which students are encouraged to participate in the provision of learning opportunities for those who have not had access to higher education in the past. Structures which allow institutions of higher education on the research and teaching side to make academic knowledge and research expertise available to community - based groupings such as women's organization k ocial movement organizations or trade unions bear special consideration.
11. It is of the utmost importance to draw to the attention of governments, businesses, charitable foundations and others that the transformation of our institutions of higher education into genuine lifelong learning organizations requires both financial and political support. To carry out the more complex administrative, academic, and community outreach tasks which are needed, increased financial support rather than budget cuts are required. We need the political will at national and international levels to help all our institutions of higher education support the learning of all women and men at all ages in all parts of the world.

We call upon

1. The delegates of the World Conference of Higher Education to incorporate both the spirit and the contents of this statement in the final documents of the conference and to take into account the learning aspirations of the adult population;
2. Institutions of higher education to be transformed into institutions of lifelong learning both within themselves and as they relate to the wider society;

3. Institutions of higher education to strengthen their capacities in the joint creation of knowledge, research, teaching and learning with diverse communities of women and men of all ages;
4. Institutions of higher education to become full and responsible partners and share their distinct and substantial competencies in this area with adult education communities, non - governmental organizations, public and private bodies, UNESCO and other intergovernmental organizations in the full implementation of lifelong learning throughout the world;
5. UNESCO, all inter - governmental bodies, governments and international funding agencies to strengthen institutions of higher education within the framework of lifelong learning in the least developed countries;
6. UNESCO, all inter - governmental bodies, governments and international funding agencies, as a necessary measure to ensure the global adoption of lifelong learning, to strengthen structures of communication among adult and lifelong educators and all others dedicated to the full implementation of lifelong learning in higher education throughout our world.

References

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- The university's role in non-formal basic education and literacy:
seven principles that can make a difference**

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The ideas and opinions expressed in this document are those of the author and do not necessarily represent the views of the Secretariat.

Introduction

Teachers in institutions of higher education (IHE) often say that 'Nothing is as practical as a good theory.' While no doubt true, this adage also represents, in a nutshell, the substantial gap (both real and perceived) between higher education and the development of basic education, especially in developing countries. This roundtable on 'higher education as a whole' is well-timed and appropriate, as it points to the many constraints and opportunities that need to be taken into account in order to create an improved environment for universities to be active in one major challenge of Education for All (UNESCO, 1990) - namely the significant reduction of global illiteracy.

That theory is 'practical' is no surprise to academics. It shapes how we view the world, parse reality, focus on key problems, and publish scholarly findings. By contrast, from a practitioners perspective, theory appears to be just the opposite: divorced from real-world concerns; out of touch with reality, inadequately contextualized for understanding real problems on the ground; and in the end, only useful for scholarly papers. These contrasting views are representative of the separation referred to in the Hughes Roundtable paper (1998, p. 10) by FAWE; namely that 'many African communities blame formal education for alienating the youth from their communities.' This may be said more specifically for those trained in higher education, where rewards are most often linked to productivity in the narrowly defined terms of scholarship.

In spite of a significant amount of public attention over several decades, problems of illiteracy and non-formal basic education (NFBE) needs of out-of-school youth and adults have received relatively little attention, and even fewer resources (human or fiscal) from universities and research institutes. It has been estimated that, of resources expended on research and evaluation of all education programmes, not more than 5 percent of this total has been focused on out-of-school youth and adults, while 95 percent is on children in school (Wagner, 1995); and this at a time where the demand (in terms of learners in need) is just as great for the out-of-school population as the in-school population.

Indeed, there is not only a lack of attention paid to NFBE and literacy in the HE sector worldwide, but there is a serious dearth of understanding of the nature of literacy in society, and the best methodologies for addressing this concern - which, after all, is considered to be one of the most important international and national goals. Why this is so would take an in-depth analysis of the educational histories, systems and processes in a wide variety of countries.

Nonetheless, the knowledge base in NIFBE and literacy has grown substantially over the past decade. Some of the most important work has been accomplished by university-based research and development specialists (cf. Wagner, et al., Literacy: an international handbook, 1999), but other work has been undertaken by specialists working in fieldbased programmes - known proverbially as those 'in the trenches.' The research to date suggests a shortlist of key principles can be put forth that have resonance

to a large number of policy makers, researcher and practitioners who care about education and development. In the following sections, these seven principles are described, along with actions that might be taken by IHEs that choose to become involved in working in the NFBE and literacy domain.

Seven principles in search of action

1. Low literate youth and adults are a chronic feature of the global educational landscape. Problems of illiteracy and low literacy are with us for the foreseeable future. Recent studies, such as the International Adult Literacy Survey (OECD/Statistics Canada, 1995; Tuijnman et al., 1997) suggest that low literacy is a serious problem among industrialized countries, especially in rapidly changing economies. UNESCO data show that poor countries have made only modest progress in improving literacy over the past decade, especially when learning achievement (rather than attendance alone) is measured (UNESCO-ILI, 1998). It is important for IHEs to realize that literacy problems are longterm, and not a matter of 'one summer campaign' or 'each one teach one'. The reason why we still have literacy problems worldwide is that standards are going up, formal schooling (especially in poor countries) has reached institutional limits, and effective literacy programmes are difficult to implement. In this context, IHEs and their staff can play a major role, over the long haul, by helping explore and document both the problems and prospects of reaching universal literacy at a national and local level.

2. Illiteracy and low literacy are inextricably linked to agricultural and worker productivity, fertility and infant mortality, and other non-educational sectors. It is now widely recognized that the implications of low literacy and illiteracy go well beyond the education arena, and have implications in many other sectors of development work (Cochrane, 1980; LeVine, 1999). Yet, IHE specialists in these other domains typically have relatively little knowledge of the role that literacy plays in their work. How, for example, can HIV/AIDS information be disseminated effectively via printed media, if individuals cannot read, or know languages other than those used to disseminate needed health information? IHEs can play a major role in bringing these sectors together to concentrate on literacy and its interconnective dimensions. Since government ministries often have considerable difficulty in making cross-sectoral work happen, IHEs can play a special role for this kind of work, as the university or institute has many different disciplines and specialties under a single roof.

3. Accountability is central to the future of successful literacy and NFBE programmes. Research and evaluation combine to form the centerpiece of progress in all areas of education. Yet, most governmental and non-governmental (NGO) agencies have extremely limited resources to undertake the kinds of studies and evaluations needed to determine progress and success in literacy and NFBE programmes (Bhola, 1990; Carron et al., 1989). IHEs have the know-how, expert staff, and institutional support to be able to address questions of how well a programme is achieving its goals, how many learners are learning what they need to learn, and how to make such information available to those who need it. The evidence to date suggests that university-based efforts have been among the most successful worldwide at contributing to this type of accountability. To date, IHE involvement has remained at the margins of donor supported activity in this type of work, but this can and should change.

4. Increased professionalization is at the centre of any progress in literacy work. The formal education system has invested major resources in teacher training over decades, in both developing and industrialized countries. Universities and teacher training institutes have played a major role in helping improve the skills of teachers in schools. Unfortunately, the same cannot be said for the NFBE and literacy sector. There are few training programmes in place, literacy workers often have little or no training, and many work as part-time volunteers. The IHEs have generally been little engaged in this training effort, which is mostly undertaken by NGOs with limited resources (Hamadache & Martin, 1987). This need not be the case. IHEs have many of the capacities needed to help in literacy work. For example, in the United States, the new 'America Reads' initiative involved a Presidential solicitation of IHE interest, followed by a commitment of IHEs to contribute resources for the involvement of both students and staff to work on literacy programmes in local communities. Another example is the Literacy Training and Development

Programme for Africa, a collaboration among a number of African universities in Nigeria, Tunisia, Botswana and South Africa, which has, over the last decade, provided significant support for innovative programmes in their respective regions (Maamouri, 1994; Okedara, 1999).

5. *Move away from a 'one size fits all' approach to literacy.* In many countries, literacy and NFBE programs have been bound to a low-unit-cost approach to learning, with the belief that the quantity of people 'reached' was more important than quality factors (such as how well people learned). The available evidence suggests that learning, especially in the NFBE/literacy sector, which is non-compulsory and voluntary, is very sensitive to motivational concerns; for example, a learner might simply not want to learn in the language which the government prefers to teach in (Dalby, 1985-, Freire & Macedo, 1987). IHEs -- especially those with strong social science departments -- can offer unique expertise to try to help situate and contextualize programmes so that they better foster learning. It is no longer sufficient to take a supply-side approach to adult learning. Unless there is demand, there will be no retention and little learning. IHEs can provide significant help in determining how best to understand and increase demand.

6. *'Truth in advertising' should be a programmatic goal.* As noted, NFBE/literacy learners come to programmes on a voluntary basis. Dropout rates are often very high (relative to compulsory school programs), often exceeding more than half the learners in the first month of programme participation (Wagner, 1995; Wagner & Venezky, in press). As per item 3 above, research and evaluation are needed to provide 'consumers' (youth and adult learners) with improved information about what they can and will learn in such programmes (if they remain in them), and what the outcomes might be upon completion. This 'truth in advertising' or consumer-oriented approach is just beginning to be fully understood by literacy specialists and policy makers, but it is clearly an area where the university could and should play a key role.

7. *Advanced technologies are now too cheap to ignore in the future of adult literacy work.* Technology is rapidly entering the thinking of policy planners and specialists in the field of education in industrialized and developing countries. What is less certain, and more pressing, is how to avoid the inevitable problems (and costs) associated with the integration of emerging and changing technologies into educational programmes and processes that work. NFBE/literacy programmes are particularly susceptible to such problems, as this is an area which has been underfunded, with relatively little professional development and a poor technological infrastructure. Recent advances in the application of new technologies for adult learning and literacy are beginning to appear however. The benefits now seem relatively well matched with the problems in the literacy field: a dispersed and diverse population of adult learners, limited and thinly distributed professional expertise; and a need to connect learners and instructors interactively in an asynchronous manner that takes advantage of learners' availability outside of the classroom. For example, in the United States, there are now initiatives that utilize satellite broadcasting for professional development, the Internet for learning and instruction, in addition to increased international networking of professionals (Wagner & Hopey, 1999). Most of these new efforts have been based at universities, where both telecommunications infrastructure and trained personnel go hand in hand (Sanyal, 1995). IHEs can be a major catalyst of efforts to effectively and appropriately harness the benefits of the new information age.

Conclusions

There are many ways in which institutions of higher education have been involved in literacy work across the globe. It is suggested here that [HE involvement can and should be much more significant in the coming decade and beyond. The seven principles described above (all based on recent research) suggest areas where IHEs can play an even greater role in this most central domain of educational development - the reduction of global illiteracy.

Increased IHE involvement will not, of course, happen by chance. IHEs will need to review their own circumstances -- locally, regionally and nationally -- to determine how best they can impact on and support efforts to improve literacy. Based on the above analysis, the quality of educational programming is going to be the key to the future of literacy work (rather than the 'quantity' approach to numbers of people ,enrolled' or 'taught'). Universities and institutes have no shortage of trained individuals who can contribute to the various issues discussed here, in both developing and industrialized countries. Assuring that this talent is put into service in the promotion of literacy worldwide is a major, but achievable, challenge over the next decade.

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Education for transformation: the global need for Promethean change

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As we approach the new millennium with our common burden of urgent problems and global disarray, it is sometimes useful to glance back at the past if only to temper our concerns with a little humility.

First of all, it is good to observe that the sense of excitement and pseudo-historical anticipation that surrounds most discussion of the millennium is relevant only because we use a particular calendar. It is useful to remember that many human societies note their histories by other calendars-some with an older and more complex provenance than our common western Gregorian calendar.

But standing as we do together on the threshold of the new millennium, wondering how higher education might give us vision and plans of action for the future, it is interesting to look back roughly a millennium ago, to the period when the first formal institutions of higher education-the universities of Paris and Oxford, for example-were formed. The study of grammar, rhetoric and logic -the so-called trivium-lay at the heart of all preparation for public life, in the church or in the courts of royalty. And above this core was the quadrivium-arithmetic, geometry, astronomy and music. These seven were the subjects which most properly represented the 'universals' of human knowledge, and were the disciplines which formed the 'university', under the queen of all sciences at the time: theology.

Here we are, a millennium later, in a world where to accuse an academic of being 'trivial' is possibly the worst insult imaginable. So much for the public fate of grammar, rhetoric and logic. The worst conflicts among academics of this mediaeval period were given the Latin description *odium theologium*, or theological hate, between one faculty's theological methods and products and those of another faculty. And today, theological hate still moves mankind, and fills the streets with blood. And the ordinary university's role has evolved into one of detached and tolerant study of all sides-theoretically at least.

Between the founding of the first western institutions of higher learning and John Henry Newman's lectures in 1852 on *the idea of a university*, more than eight centuries passed. But the social environment in Ireland where these lectures were given was still one of theological divisions between Anglican and Catholic and their social and political implications. And Newman's dominant vision of higher education, a vision which has been shared by many traditional institutions in the west for several generations, is much more like that of the medieval origins of higher education than of modern universities throughout the world. It is essentially a classical, Mediterranean and Christian humanistic document wearing the vesture of universality. And the caustic divisive forces that were present to motivate dissension at the turn of the first millennium, when universities were founded in the west, and those which occasioned Newman's eloquent defense of classical humanistic learning eight centuries later, are still alive and well in the streets of Omagh and the mountains of Afghanistan. So much for the effectiveness of the old style university of the west as an agent of cultural change. Part of the problem, perhaps-, not part of the solution.

In those areas of human development in which we seek to improve our capacities as toolmaker, higher education has been true to the cultural heritage of the Greek figure of Prometheus. We tend to remember this western deity primarily as the Firebearer, the one who stole fire from heaven for man's use

and who taught man the practical arts of mathematics, metallurgy, navigation and medicine. Prometheus is then, equally with Apollo, the god of light and reason, an appropriate symbol of the role of higher education, at least in western industrial culture. Prometheus, whose very name means forethought or anticipation, symbolizes higher education's role of advancing tool-intelligence, the human trait which has become the exclusive indicator of development in the modern world.

But in many other areas-especially those which pertain directly to values, principles of individual and group behaviour, higher education seems to have performed well as an agent of stability, homogeneity and continuity, but poorly - or not at all - as an agent of change. In this regard, higher education seems to be characterized by the nature of Prometheus' brother, Epimetheus-or 'After-thought'-the husband of the beautiful but foolish Pandora. In one of the legendary accounts, Prometheus counselled his brother not to marry Pandora, and indeed even advised Pandora not to open the fateful box in which he, Prometheus, had previously imprisoned all the 'Spites' that plague mankind. We all know what happened. Prometheus is then the symbol of human power to foresee consequences, not just in the manipulative or tool-intelligence behaviour, but in those areas where we humans are supposed to be wise and prudent as well. We are after all not just *homo faber*-man the tool maker-but *homo sapiens* as well. Man the wise.

In my life as an African teacher, father, principal and finally government minister, I have absorbed and communicated on to others those precepts and models of western culture that appealed to my sense of African - and perhaps sometimes even universal - values. When I was given the responsibility of helping to draft the Namibian Constitution, and then appointed Deputy Minister of Basic Education and Culture, I felt that at last we, Namibians now had both the freedom and the tools to become an African society of the future, to attain those personal and social goals we had been seeking through the long *apartheid* era. The eagerness and clarity I and my colleagues shared in transforming our bantu education systems into a single national system were exhilarating. We made rapid progress in many areas in a very short period of time. But what this initial success brought out clearly is the lesson that we all know, that lies at the heart of our efforts here this week: sustainable reform takes more than just institutional, budget or personnel change.

All the elegant and sophisticated needs inventories, all the calendarized monitoring and evaluation, all the recommendations from university contractors to bilateral aid agencies - all these Promethean elements of social engineering must be balanced by an equally Promethean humanistic progress. And in this area we all-developed and developing societies alike - are still at a somewhat rudimentary stage of maturity. If we were to sum up this imbalance of human capacities that characterizes our present human condition, we could say that modern civilized man is a Stone Age organism trying to exercise twenty first century power in a world of eighteenth century social institutions based on medieval humanistic principles. The general result is very much like that of imposing high-powered chemicals on natural life-systems- eventually the older, natural structures begin to erode. In our case, this erosion can be seen as the reversion to smaller, more intensive units like language and ethnicity, religion, race, tribe. And this is especially true in the context of crowding and diminished resources.

What, then, can higher education do to become part of the solution, to assume a Promethean role of leadership in the anticipation and the remediation of global problems? I feel that the answer to this question will be both extensive and complex. But, 'it must begin with simple truths. And I would like to propose that we consider the following as common starting points.

The first is from Julius Nyerere. In an address to a UN General Assembly consultation held in New York in June of 1994, Dr. Nyerere said: **'Development is about People. They are the purpose of, the creators of, and the beneficiaries of anything deserving the name development. People cannot be developed by others; they can only develop themselves.'**

The global challenge that lies beyond the door into the next millennium is the challenge of mass grass roots personal transformation, not just through the educating of minds with information and cognitive skills, but first of all the educating of hearts and imaginations - the development of moral imagination and will. One of the great founders of the present cybernetic age, Professor Norbert Wiener, has put this contrast very succinctly. He says, **'It is one of the paradoxes of the human race, and possibly its last paradox, that the people who control the fortunes of our community should at the same time be wildly radical in matters that concern our own change of environment, and rigidly conservative in the social matters that determine our adaptation to it.'**

Earlier, and in a similar vein, the great U Thant said **'Mankind must decide during the seventies whether it is willing to change in order to take advantage of its new potentials. Continuation of present patterns of behavior ... will create a situation in which our very survival will be uncertain.'** In both cases the single target of change for survival is behaviour. Not the proliferation of institutions-both governmental and NGOs -but changes in people-, not structural adjustment, but adjustments of personal attitude and values. As Julius Nyerere said, development is about people. Higher education must be about people-the masses of ordinary people whose attitudes and behaviour must change to effect the culture of peace, of tolerance, **and of freedom.**

The second truth on which higher education should base its new role of an agent of Promethean global reform is from the Old Testament of the Judaeo-Christian tradition, but it is so common in both earlier and contemporary cultures as to be almost a universal truth. **'There is nothing new under the sun.'** In the areas of immunology, psychopharmacology, telecommunications and hosts of other fields that impact directly on human lives, innovation is not only constant, it is accelerating all the time. We have become used to the idea that a single generation in some field, such as computers, is now a mere three or four years. And yet when it comes to the understanding of the human heart, the motivations and dynamics of behaviour-both personal and social-we are experiencing what can only be called the 'massification of ignorance.' There is probably no greater evidence of this, than the fact that there was among that class of people worldwide able to afford and understand the broadcasts last month of the American melodrama of the Starr report, a global audience willing to spend time tuning in and paying attention to what is ultimately global gossip. The percentage of viewers with higher education experience was, I think it is safe to assume, much higher than average. And the phenomenon itself reflects, in my view, the fact that internationally the higher educational preparation of most people's ethical imagination and taste remains stuck at the common adolescent stage. There is simply no development in those areas that contribute directly to human behavioural change or even control. In that realm where we have a global need for a Promethean vision and a commitment to the human technologies of personal change in attitudes and behaviour, there is nothing new under the sun.

In my own country, we have made a small beginning to address this challenge. Because we only recently emerged from a political context which was based on the ethical and humanistic values of the leaders of *apartheid*, 'teachers were seen to be both implementers and agents of change. The entire education system had to be transformed...' But, because our new and secular higher education system remains at the level of valuing, researching and promoting, only such pedagogies as apply to language, mathematics, science and other academic subjects, the responsibilities of learning how to instill the personal skills of tolerance, creative co-operation and the sense of justice is left to the will and interest of the ordinary classroom teacher. We take pride in the fact that in Namibia we are shifting successfully from a teacher-centred to a learner-centred classroom environment. The fact that there are so few developed and known techniques for facilitating the change of the personal sense of professional identity in individual teachers in both, their formal teacher education and the in-service programmes available, makes our work in completing this transformation almost like the task of Sisyphus, to borrow another Greek legendary image. Again, there is nothing new under the sun to help us make rapid, effective internal changes to **serve as the engine for** global transformation. What is clearly needed is the immediate and uncompromising implementation of the nine recommendations of the International Conference on Education of 1996, especially the second and fourth: *2) a better linkage between pre-service training and the*

demands on an innovatory professional activity 4) the involvement of teachers and other agents in the process of transforming education: autonomy and responsibility. Is it even necessary to point out that autonomy and responsibility are both ethical entities?

If we are indeed globally in such dire need of immediate transformation of values and behaviour, then we cannot depend on an unsupported, idiosyncratic process of social conscientization among teachers themselves. We must identify and support that transformation process. And who can do this more effectively (and indeed more safely) than higher education-especially teacher training institutions. Certainly structural adjustments of the institutions of higher learning themselves will not be effective. Enforcement of doctrinal content-even benign content-will itself undermine the very spirit of personal choice and creative thinking that we must regard as essential to the process of making a good teacher.

And how can policy makers and public service agencies responsible for teacher education open the door to this millennial process of change? The answer, I believe, lies in a two word quotation from Martin Luther, the father of one of the greatest processes of systemic internal transformation in western history. The two words are in the original Latin *PECCA FORTITER!* Literally they mean 'SIN BRAVELY'. Martin Luther was not recommending sin, rather it was his way of saying that, if one is going to go where none have gone before, one should do so with courage and energy.

What policy makers and public service bureaucracies must do to empower the agents of change is to first embody tolerance and a spirit of innovation themselves. We must encourage teachers-mostly women on a global basis-to be Promethean in their professional goals for both their present learners and the generations to come. At the university level, incentives should be put in place to encourage, not a continuation of educational research in the form of papers and books that accomplish little more than securing the employment and prestige of professional academics, but action research, which identifies and promotes real change in the attitudes and behavior of teachers and learners, research which includes a wider more representative and inclusive range of participants. At the local level, supervisors of school systems and principals should be encouraged to tolerate wider limits on the control of teacher innovation. (This, by the way, is an essential requirement of such a transformation process, because no matter what ministers and permanent secretaries or professors of education might say, principals will not permit anything which makes them look bad.). In short, in order to accomplish a transformation to a culture of tolerance, innovation and ethical responsibility, the leadership in every society must first internalize it and act accordingly. We need Promethean leadership as well as grassroots innovators. If we are going to go against the expectations of those around and above us, and even that of our own cultural educational history, we must be willing to SIN BRAVELY.

It would be a mistake to think that we need to come up with a whole generation of new educational ideas and techniques to get this process started. Another meaning of the saying "Nothing new under the sun" is that good ideas are abundant and are widely distributed. An enormous body of research and experience in teaching attitude and behaviour change can be found in Russian education. If any society's educational system can be said to have overcome the challenges of massification, distribution, access and equity and literacy, together with maintenance of high academic standards, it is that of the Russian Federation. For generations-before the centralization of the Communist period and now after its demise -Russian parents and educators have developed and refined diverse content and techniques for what is known in Russian as *vospitanie* - a very difficult world to translate, but which I understand is a concept that allies teachers, professors of child development, parents and the community at large in the same socially essential task of developing a true person-a young person who has not just knowledge and mental skills, but social wisdom, understanding of the framework in which to apply skills, and shared personal and interpersonal values. The following are categories of curricular skill subjects which teachers of young children are expected to report on in many schools in present day Russia: 'social manners, national/ethnic pride, respect for authority, tolerance for others/differences, self-assertion, conflict avoidance, group problem solving, individual problem solving, individual personality development, self-reliance'. The amazing thing here is not the desire to show such virtues publicly as part of the goals of a

school, but that the schools have institutionalized the implementation of them. And these are secular schools-many of which have the same principals, teachers and texts as during the previous twenty years. Perhaps one useful service higher education could perform in this period of global educational change is to find and promote awareness of those forms of learning that directly address internal personal growth.

Like most of you, I assume I am not unaware of 'the challenges we face in asking the leaders of higher education - deans, professors, librarians, research guidance committees, tenure-oriented young scholars - to emulate a Greek god who, as punishment for his virtues, was chained to a rock in the Caucasus where an eagle landed every day, and consumed his liver. But, certainly, we can - indeed we must - pursue the objective of developing more futuristic, more anticipatory teachers. In the Second Preliminary Version of the Framework for Priority Action for Change and Development of Higher Education, it is agreed that: 'higher education institutions must regard ethical, as well as scientific rigour, as indispensable in all their activities',... and should include 'a sharp sense of the social pertinence of studies and on their anticipatory function' and also should include 'fundamentals of human ethics, applied to each profession and to all areas of human endeavour.' These are themselves Promethean goals.

In closing this presentation, let me return to the words of Julius Nyerere. DEVELOPMENT IS ABOUT PEOPLE. When we awaken on the first day of the new century, we will have in our homelands throughout the world most of the same people in front of us as we do now. Our institutions will be mostly the same, our policies, our meager-and in some cases, non-existent-resources will be the same, and, in most cases, our leadership will be the same. We are all part of the people Nyerere is referring to. Change-if there is to be **any**, and of any substance-must begin with us and our colleagues or opponents at home. We cannot encourage daring and risky changes in attitudes and behaviour unless we ourselves embody them and publicly encourage them in others.

Pandora's Box is opened, mainly because of the stupidity and refusal to listen of her husband, Prometheus's brother Epimetheus. To act in a salutary and effective manner in a world already filled with complex problems that are daily more interconnected and potentially dangerous requires us to become visionary, whether we are comfortable with that role or not. And we must be willing to take risks, and to do so bravely.