



International Association of Universities
HE/Research and EFA/education-related MDGs
February 2008

Contribution of higher education and research to education for all (EFA)

IAU Paper commissioned for GMR

prepared by

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INTERNATIONAL INSTITUTE FOR EDUCATIONAL PLANNING

As part of IAU ongoing commitment to Higher Education and Research working for
EFA and education-related MDGs

IAU February 2008

Table of contents

1. Introduction.....	7
2. Indigenization of educational development.....	8
3. Intellectual role and ideational leadership of higher education	11
4. Input-output relationship between higher and other levels of education.....	13
5. Role of higher education in developing a research basis for decision making in education.....	15
5.1 Institutional arrangement for educational research.....	15
5.2 Emergence of education as a credible area of scientific enquiry.....	16
5.3 Expenditure on education as an investment.....	16
5.4 Research argued for increased investments in primary education	18
5.5 Investing in primary education for poverty reduction.....	19
5.6 Prioritizing investment within primary education	20
5.7 Research on teachers and teaching	23
5.8 Effective schools and student learning.....	25
5.9 Contribution to research training	27
5.10 Curriculum and textbooks	28
6. Contribution to EFA Training.....	29
6.1 Contribution to primary school teacher training	29
6.2 Training of literacy and adult education instructors.....	32
6.3 The role of Open Universities in promoting EFA	34
7. Contributions to policy and planning	35
8. Higher education research in support of education for all: The IAU survey results	37
8.1 Is the research community familiar with EFA movement?	37
8.2 Are the university departments and institutions engaged in EFA research?	38
8.3 Research on EFA goals.....	38
8.4 Research themes on EFA.....	40
9. Are there obstacles to research involvement in EFA?.....	41
9.1 What incentives are required to stimulate greater research?	42
9.2 What would facilitate a department's research activities related to EFA? 43	
9.3 What measures should international organizations undertake to reinforce research in EFA?.....	44
9.4 Further comments and aspects neglected in the questionnaire	45
10. Concluding observations	45
Annex 1: EFA and the Institute of Education, University of London	49
References.....	57

List of boxes

The contribution of higher education to development.....	9
Higher education for a competent State.....	10
Replacement of expatriates : The Africanization of teachers and professionals	10
Intellectual leadership of universities: Political and research.....	12
Human capital theory and changing view on education	17
Research findings on rate of returns by levels of education	18
Investing in primary education for poverty reduction	19
District Primary Education Programme (DPEP)	20
District Institutes of Education (DIETS)	21
Investing in learning materials improves learner achievement.....	22
SACMEQ research on educational quality	26
Assessment of numeracy and literacy achievements in disadvantaged primary school populations in Sub-Saharan Africa	27
International Institute for Educational Planning (IIEP).....	27
Capacity development for research and curriculum development.....	28
The Nkrumah College of Education in Zambia.....	29
Improving the quality of teacher training	30
Teacher training using ICT francophone des établissements	31
de formation de formateurs (RIFEEF).....	31
Linking higher education with ECCE: A case study from India	32
Department of adult and non-formal education in Namibia	33
Contribution to poverty reduction through agricultural extension services.....	33
Role of the Open University in promoting EFA.....	34
Digital Enhancement Education Enhancement Project (DEEP).....	35
The Advisory Committee on Education at the University of Botswana.....	36

List of tables

Table 1: Share of education in GNP in selected countries.....	17
Table 2: Share of budget to primary and higher education in selected countries (%).....	18
Table 3: Response to IAU survey	37
Table 4: Familiarity with EFA	38
Table 5: Departments engaged in EFA research.....	38
Table 6: Research on EFA goals by region	39
Table 7: Regional distribution of research in EFA goals.....	39
Table 8: Research priorities in EFA goals within regions	40
Table 9: Themes undertaken for research in EFA	40
Table 10: Primary obstacles ranked by region.....	42
Table 11: Incentives to stimulate greater research ranked by region.....	43
Table 12: Means to facilitate EFA research.....	44
Table 13: Recommended roles for international organizations	44
Table 11: Further comments and aspects neglected in the questionnaire.....	45

Contribution of higher education and research to education for all (EFA)*

N.V. Varghese**

1. Introduction

Education is one of the important sectors in any economy attracting millions of dollars, employing thousands of teachers and engaging millions of students in their pursuit for learning. Education is hierarchically structured, sequentially ordered with limited possibilities of time-squeeze to obtain a diploma. The accumulation of human capital implies moving to the successive levels of the educational pyramid. A climb of this pyramid is important and has become a necessary condition for individual achievement, social mobility and economic success. The conditions of individual success are determined by one's relative position in the educational pyramid.

Higher education occupies the top position in the educational hierarchy. By virtue of its location in the hierarchy, it has a responsibility and makes a contribution to the lower levels of education. This contribution can either be direct and visible or indirect and not so visible. Similarly, the lower levels of education are also organically linked to the higher education sector. This paper is an attempt to analyze the inter-linkages between higher education and other sectors of education focusing on the contribution of higher education and research to education for all (EFA).

Although the size of the pyramid at the top is small, the structure of higher education is diversified and is organized differently from that at the primary levels of education. The higher education sector in most of the countries consists of a university and a non-university sector. Universities are institutions with the authority to grant degrees. They can offer courses and degrees in multi-disciplines or in a limited number of specialized areas. The universities can be private or public in terms of ownership and sources of financing. The non-university sector consists of technical institutions offering courses in professional subject areas, training colleges and specialized institutions offering programmes of study and carrying out research, as well as institutions engaged in policy and planning support to the education sector. While discussing the contribution of higher education and research to EFA, the contributions by all of these types of institutions are taken into account.

It is important to realize the institutional contribution and individual contribution. Now and then, universities and tertiary-level institutions contribute to the overall development of the education system. At times, individuals from these institutions participate in committees and commissions appointed by the MOE and they guide policy discussions to shape the

* This is a revised version of the paper prepared for the International Association of Universities (IAU) for the Global Monitoring Report (GMR), Paris. I am grateful to Eva Egron-Polak of IAU and Sayed Yusuf of GMR for their comments, Isabelle Turmain for the initial discussions and comments on the draft, Nadja Kymlicka for her help and support in providing information, write-ups, for the boxed items and the data of the survey conducted by the IAU, Karin Darin and Felicia Wilson for their support in providing materials, and Christine Edwards for her efficient secretarial support.

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educational progress of the country. This paper refers to all types of institutions and their contributions, as well as individual contributions to EFA efforts.

This paper is broadly divided into two parts: The first part (sections 2 to 7) deals with the role of higher education, especially the contribution of research, to compulsory levels of education. This part is based on a review of documents, research studies and evidence focusing on the nature of the research studies, their results and perceived influences on changes in policy, planning and pedagogical/classroom practices. The second part (sections 8 and 9) discusses the trends in higher education research on EFA around the world and the constraints in undertaking and promoting EFA research among the researchers. This part of the paper is based on the survey carried out by the International Association of Universities (IAU) specifically on this subject.

The following section discusses the contribution of higher education to development as a prelude to the discussions on the contribution of higher education to the whole education sector. *Section 3* discusses the intellectual role played by higher education for the development of education in a country. *Section 4* deals with the inter-linkages between different layers of education. *Section 5* is the major section which deals with the research contribution in shaping the primary education sector, on research training and curriculum development. *Section 6* highlights the contribution to EFA – primary school teacher training, literacy and adult education workers and the role of open universities in these activities promoting EFA. *Section 7* deals with the contribution to policy and planning, including EFA national plans. Sections 8 and 9, based on the IAU survey, discuss the trends in EFA research carried out by the higher education sector, areas of focus in such research, and the constraints to promote EFA research in institutions of higher education. The final section makes some concluding observations.

2. Indigenization of educational development

Universities remained central to the realm of ideas and ideologies that have decided the very destiny of societies and nations. This essential role has mainly been due to their capacity to generate, retain and transmit knowledge throughout generations. They also succeeded in preserving cultural values and legitimizing norms of social behaviour. In fact, institutions of higher education are responsible for nurturing the growth of knowledge, managing development, and for engineering social transformation.

Industrialization and the resultant demand for skilled workers transformed the scholar-centered medieval institution of higher education into universities producing teachers to train the workforce needed for industrial production. At this stage, universities remained essentially teaching and training institutions. The establishment of a research university in Berlin (by Wilhelm Von Humboldt) changed the orientation of universities worldwide.

During the second half of the twentieth century, education was recognized to be a fundamental human right and hence schooling became a compulsory area for active intervention by the state. In the 1960s, expenditure on education was recognized as an investment, and national governments were enthusiastic and willing to invest in education leading to an overall expansion of the system. The fiscal crisis of the 1980s reduced the capacity of the state to invest in education and it resulted in a slowing down of growth and expansion of the education system, especially at the primary levels.

The national governments and international community came together during the World Conference on Education for All in Jomtien, Thailand, in 1990, and reiterated their commitment and support for attaining the target of Education for All (EFA). The declarations were followed up with increased financial allocations to primary education. These commitments were further renewed in Dakar in 2000. All of these efforts have helped bring the education agenda to the centre stage for priority action and financial commitment. The revival of the sector is visible and educational progress has been made in all countries, although many of them are still far away from the target of attaining EFA goals. At present, the developed countries are moving towards the notion of Tertiary Education for All (TEFA) (OECD, 1999a) while a majority of the developing countries are still in their struggle to achieve their objective of Education for All (EFA).

The role of higher education to economic growth and national development is well-recognized, even when the rate of returns has consistently shown a higher rate to primary levels of education (World Bank, 1994; World Bank and UNESCO, 2000). The contribution of higher education to economic development has increased in the context of knowledge-based production and globalization (World Bank, 2002).

The contribution of higher education to development

The Australian higher education system is seen to make a fundamental contribution to the future of Australia and plays a vital role in Australia's intellectual, economic, cultural and social development. The higher education sector educates our future professional workforce, creates future leaders, provides jobs for Australians, drives much of our economic and regional success, and facilitates cultural and trade links with other countries. The sector plays a key role in the growing knowledge and innovation-based economic health of Australia. It enriches our social and environmental landscape and promotes the tolerance debate that underpins Australian society.

Australian Government Department of Education, Employment and Workplace Relationship Website 2007.

The discussions in the following paragraphs highlight the role of higher education in promoting overall development and that of the education sector, not necessarily focusing on the contribution of the sector to economic growth. In the post-independence period, national governments promoted universities due to their role in the developing national system of education and in national development through supplying qualified labour to 'man and manage' the economy, both contributing to the process of indigenization of development (Atal, 1995). The former role helped to develop national systems of education, while the latter role helped to develop analytical skills and policy-making capacities in the newly independent country. Both were essential elements in the process of self-reliant development. The indigenization effort had two dimensions: i) indigenizing the educational system at all levels; and ii) indigenizing development through designing and evolving paradigms which are national, as well as through promoting research and analysis as a basis to formulating intrinsically domestic policies.

The indigenization of educational development involved indigenizing teaching staff, curriculum and language at the different levels of education. In most of the newly independent countries, especially in Africa, expatriates constituted a good share of the

teaching stock during the immediate period following independence. The priority for the national governments was to nationalize the teaching stock which implied the training of a large number of teachers on a priority basis to teach at the primary levels of education. The immediate task of institutions of higher education was to develop teachers that would teach at the primary levels of education. Teachers trained domestically (by national institutions) and national teachers replaced the foreign nationals and expatriates in the teaching profession.

Higher education for a competent State

Higher education is seen to play a central role in capacity development for the public, private and third sectors, in line with recent multilateral thinking. In South Africa, this has been linked explicitly to a revisiting of the developmental State debate. There it is argued that the achievement of growth with equity can only be achieved through the creation of a strong State that is able to facilitate economic growth, promote socio-economic inclusion, and ensure a social safety net for the poorest. This in turn requires a competent State, supported by higher education and its own training institutions.

King, K., McGrath, S., Rose, P. 2007. "Beyond basic education and towards an expanded vision of education – for poverty reduction and growth", *International Journal of Educational Development*, (vol. 27, issue 4, pp.349-357, 2007).

The second dimension – namely the indigenization of development – implied the replacement of expatriates in administration and decision-making positions by the nationals. It also implied the replacement of expatriate staff at the university level. Initially, these high-level professional staff needed training which could not be provided domestically for lack of institutions of higher education, and were therefore trained abroad. The establishment of universities and prioritization development of locally-trained staff helped to replace the expatriates with nationals. In other words, the indigenization of development, unlike in the primary education sector, had two stages – first nationals were trained abroad, and then they were trained domestically by nationals. This has reduced the continued reliance on external experts for research analysis and policy support.

Replacement of expatriates : The Africanization of teachers and professionals

Among the new states attaining independence in the early 1960s, there was enormous pressure for the expansion of universities when most positions in the society that required a university education were still held by expatriates, and there was a felt need to accelerate the replacement of expatriates by indigenous people. "The first step in African independence was to put Africans at the top of the Government ... Africanization has everywhere gone more quickly than the colonials anticipated ... There has consequently been a strongly expansionist view of higher education".

Sutton, F. 1971. "African universities and the process of change in Middle Africa". In: Kertesz, S.D. *The task of universities in a changing world*. Notre Dame: University of Notre Dame Press.

The replacement of expatriate teachers by nationals had far reaching effects in terms of the promotion of national values, culture, language and, in general, the nationalization of education. The university sector helped to develop curriculum which were locally relevant and at the same time promoted national integration and the use of national and regional languages as the medium of instruction in primary schools. Needless to say, primary levels of education were the largest beneficiaries of the process of indigenizing educational development. National universities and institutions of higher education played an important role in this process.

3. Intellectual role and ideational leadership of higher education

The idea of structuring education to improve society has been very powerful in many countries for years. A strong belief in this idea forms a reliable basis for state intervention in education and for providing financial support to extend educational provisions to all children. This justifies the emergence of public school systems in the 19th century in many of the presently developed countries. The notion of education as an activity publicly designed and funded paved the way for formulating public policies to guide educational development.

Many considered education to be a powerful agent in their efforts towards social engineering. The political process created a vision of society that they would like to build and then tried to plan education to suit that vision. This vision had two dimensions – the technical and technological aspects of development, and social and cultural aspects of development. Education used to help achieve both of these goals. For example, while research in agriculture and industrial development contributed to increased national production, research in health and education helped to contribute to the individual wellbeing and social orientation of the citizen towards a shared vision.

The development strategy has always been linked to competing ideologies of development in their promise to improve human welfare. While the technical and technological contributions of education and the school system remained similar in societies following rival ideologies, the social role and orientation of education varied. This is also reflected in the curriculum prescribed at different stages in the development of societies. The content and social basis of the school curriculum varied between centrally-planned economies and free market economies, and under democratic and totalitarian regimes. It is not surprising that curricular changes were an important element of reform measures when there are revolutionary changes in a society. In the post-Soviet era, the curricular orientation in centrally-planned economies changed from a Marxist to a market perspective. These changes are reflected in the textbooks, teaching process and teacher training methodologies.

Educational development is based on imaginaries created by influential intellectuals and groups to effect changes in education. These imaginaries represent a prescriptive conception of how educational policy can be formulated to realize the societal transformation, how educational practice can be organized to realize the policy objectives, and how practice can be directed to ensure that certain outcomes conform to the social norms. It is through the collective sense of imagination that discourses and institutional practices are created. The intellectuals and leaders create an imaginary and tailor educational systems around those ideas. One of the major contributions of the university sector and products of the university system is in terms of developing these imaginaries which can be the basis for educational development.

Further, the architecture of education in any country depends on many elements: the ideological basis which defines the purpose, the political process which draws the boundaries of operation (reflected more in terms of policy measures), the planning process which structures the educational system, process and practices in conformity with the ideological orientations, the administrative and management process which preserves the essentials in the process of implementation, and the individual institutions which guarantee the transaction of this value system and the teaching process which helps master the technical competency and absorb the social norms. Education becomes one of the most important training grounds both for socializing individuals to technical and ideological aspects of development.

Intellectual leadership of universities: Political and research

Being the oldest historically black university in Southern Africa, Fort Hare's history was intertwined with the anti-colonial struggle and the fight of human dignity on the African continent. From its beginning in 1916, this institution has had a line of renowned sons and daughters of the continent who subsequently emerged as advocates for the self-determination of their respective countries and the liberty of their own fellow citizens.

Research and the formulation of well-designed social policies are critical and urgently needed by countries in the Southern African Development Community (SADC). Universities should produce and provide research that informs of policy development and policy choices made by our governments and departments. This passion and work must create platforms to achieve a better life for all, to improve the quality of life of all people of the continent, the region and our respective countries. We trust that the University of Fort Hare will build and strengthen this social policy initiative, and make it grow into a centre of excellence in the region on matters of social policy.

Speech of the Social Development Minister of South Africa Zola Skweyiya, at the University of Fort Hare on 23 January 2008 for the seminar on *Social Policy in Southern Africa: Exploring a New Research Agenda* (Reported in SARUA e-News, vol.1, no.2, 27 January 2008).

While intellectuals and thinkers play an important role in the ideological domain, technocrats play an important role in the structuring, administrators/bureaucrats play an important role in managing the system, and teachers play the dominant role in the teaching-learning process. One could notice that, invariably, most, if not all, involved in the process are products of the higher education system and a contribution by higher education to design education in a given nationally-defined context. This is an important contribution of higher education to the development of education at all levels, including the higher education sector itself.

What is described above is a supply-side version of the educational process. Two groups of people who are not involved in the process are parents and children. Many times, an educational structure is given to them. The belief is that social objectives can be more successfully achieved when decisions are taken at the aggregate level, rather than at the individual level. This belief shifts the focus of decision-making from individual and household levels to macro levels, and it rationalizes the centralization of educational decision-making. This formed the basis for public authorities (government) to assume

power and authority to design and deliver educational programmes in all countries (Varghese, 2004). The parents and students are supposed to adapt to the given structure, and choose courses and programmes from within the options provided by the public authorities.

Experience shows that the educational system is in perpetual conflict between the wishes of the parents for their children to succeed and the efforts of the policy makers to improve the performance of public schools. In this conflict, both parties remain dissatisfied with a feeling that they have achieved less than expected. This dissatisfaction forms the basis for initiating reforms to improve the education system and the willingness of parents to invest larger amounts of resources on education. Private individuals invest less in the education of their children either when they are poor or when they find that the public provisions are good. Those who demand a differentiated education move away from public to private provision of education.

Education commissions and committees are common features of educational decision making in many countries. Even before the independence of many of the developing countries, education committees were set up in the colonies to discuss and shape the future development of education in the colonies – for Africa and Asia. These committees and commissions – which may not be a permanent set-up – have played an important role in deciding the orientation and contents of education.

The tradition of setting up commissions and committees continues even today and they serve the purpose of regulated consultations outside of the bureaucratic traditions. These committees/commissions are not only headed by outstanding educationalists, but also their working is facilitated by a group who are themselves products of the higher education system. These committees help contribute to developing an imaginary of the education, a vision for the development of education which can form the basis for governments to act to change the structure, contents and transaction process in education. Recommendations of such committees help the government to prepare a blueprint of educational development, and such high powered committees have helped the cause of the poor and primary education in most of the countries.

4. Input-output relationship between higher and other levels of education

The World Conference on Higher Education (UNESCO, 1998) notes that one of the functions of higher education is to contribute to the development and improvement of education at all levels – “Higher education should enhance its contribution to the development of the whole education system, notably through improved teacher education, curriculum development and educational research”(p.23). However, it is noted at times that this broader role of higher educational institutions is not internalized by the actors in the system. In a recent meeting on the role of Higher Education in EFA (IAU, 2007b), it was noted that this role is not played to the extent to which it should be, partly due to limited awareness in the higher education sector about EFA. Several participants from both development agencies and institutions revealed their unfamiliarity with EFA, its orientation and the terminology used.

Higher education has a lead role in the directing and supporting of other layers of education by providing human resources to teach and manage the education system at the primary, secondary and tertiary levels of education on the one hand, and a receiving role since the students transiting from the lower levels of education are its inputs. In the educational

hierarchy and production process, the products from the lower-level units become inputs (students) in the subsequent level of education and the outputs (graduates) from the higher-level units become important inputs (teachers) in the production of the output of the lower levels of education. The general trend is that while a major share of the outputs of the lower-level units become inputs in the next higher level of education, only a small share of the outputs of the higher-level units enter as inputs in the production process of lower levels of education. This is more so when the higher levels of the education system reaches a stage of 'massification', if not universalization.

With the expansion of the education system, enrolments to all levels of education increase. Further, the number completing each of the cycles will be increasing, even when the rate of completion remains the same. If we assume the rates of retention and completion are closely associated with the quality of provision and process, then the number of graduates will increase even when there is no improvement or even a slight deterioration of the quality of education. An increase in the rates of retention and completion of an expanding cycle will tremendously increase in the number of graduates from the same cycle of education.

The completion rates may further increase with improvements in the quality of education. These two factors, increasing enrolment and improvement in the completion rates, will put pressure on the next level of the education system to expand, even when transition rates remain the same. The government can have several options: a) to retain the same transitions ratios; b) to increase the transition rates; or c) to retain the same number of students admitted to higher levels of education. In fact, the regulated admission policies at the secondary and higher education levels keep the transition rates and enrolment ratios low even when growth in enrolment in the primary sector is very high.

The developing countries have less-developed education systems. At the same time, since the number of children enrolled at the primary level are fewer, the number of students seeking admission to subsequent levels of education, too, will be limited. In the educationally developed countries, the number of additional students to be enrolled at the primary level will be fewer and those seeking educational opportunities at the post-primary levels will be larger. It can be argued from this premise that the cost of universalization of primary education will be higher and the cost of universalizing post-primary education will be lower in developing countries. Conversely, the cost of universalizing primary education will be lower and that of post primary education will be higher in developed countries.

If we look at the expenditure pattern, the developing countries invested a larger share of their budgets in higher education when the cost of universalizing higher education was lower, and invested a lower share of their education budgets to higher education when the cost of universalization was increasing. The developed countries on the other hand followed a pattern of expenditure consistent with the cost of universalization. The cost of universalizing tertiary education has increased with the expansion of post-primary education, and most of the developed countries increased their share of expenditure on higher education during the period of its massification. It can be seen that GER and the share of budgets allocated to higher education increased substantially in developed countries during the 1990s.

While the higher education sector receives its inputs from the lower levels of education, its outputs are responsible for the production of these outputs. The flow back from the system in terms of the number of secondary school and university graduates entering as teachers to

the system increases very slowly. In fact, the share of the graduates entering the education sector as teachers may in fact be declining, especially when the system is expanding at the higher levels of education. One of the impacts of the efforts to achieve EFA is the explosion in enrolment and completion rates at the primary levels of education. This has a tremendous impact on the subsequent levels of education. The expansion of primary education has increased social demand for secondary and higher education which cannot be supported by the public exchequer in many countries.

5. Role of higher education in developing a research basis for decision making in education

5.1 *Institutional arrangement for educational research*

One of the areas of major contribution made by higher education to the whole of the education sector is through the research carried out and the evidence produced by researchers. Higher education has contributed to research efforts in two ways: first, by providing research training, and second by undertaking research in education. The former refers to a larger community of researchers not necessarily concerned with or confined to researching on educational problems.

Educational development is influenced not only by the research carried out in education and by educationalists, but also by the scientists and researchers in other fields of study. Advances in the study of mind, neurological sciences, brain and cognition have significantly contributed to a better understanding and orientation of the teaching-learning process and a more effective organization of educational activities. Similarly, economists, sociologists and political scientists, too, have contributed substantially to the issues related to prioritizing investments and maximizing outputs of the system.

The institutional arrangement for carrying out research in education is in line with that in other disciplines. Three different patterns can be identified: i) in universities as in countries such as the UK, USA, etc; ii) in central national agencies such as the CNRS in France; and iii) in national academies separate from the higher education system as existed in the USSR (Neave, 2002). There is a proliferation of research institutions outside of the university sector. For example, in the Asia-Pacific region, the research institutions are of different categories: a) government-controlled; b) quasi-government and multi-disciplinary research institutes; c) university applied research centers; d) private research centers; e) regional research institutes; and f) research associations (FIT, 1983). Another trend, very important from the organizational aspect of research, is the establishment of centers of excellence within universities (OECD, 1999b). These centers are created to focus attention on certain selected critical areas where research is needed for the country.

There are different types of institutions conducting research and contributing to research on primary education. Faculties of education carry out research, especially related to the pedagogical aspects of education. Similarly, departments of adult and continuing education, sociology, economics, psychology, etc., are engaged in educational research. Some of the universities have departments of educational management and administration. In some countries action research to extend pedagogical support to primary school teachers is carried out by sub-national level teacher training institutions. Then there are research units established within universities and other research institutions.

The research in education can be of several types: a) theses prepared by graduate students in the universities; b) doctoral theses prepared for the awarding of degrees; c) departmental research projects funded by the ministries of education; d) projects funded by external agencies and donor communities; e) individual projects funded by agencies and ministries of education; or f) individual research by the faculty members etc.

5.2 *Emergence of education as a credible area of scientific enquiry*

The role of research in educational decision making is an important breakthrough in educational development. Historically, educational leaders to start with came from religious background and training since education was considered to be more of a moral and philosophical endeavour which need not be subjected to any scientific enquiry. The resistance was strong. For example, when Professor Mayer Rice, the father of research on teaching, presented his research findings to the annual meeting of superintendents in the city of Atlanta in 1897, they unanimously rejected the very idea of evaluating teaching in terms of the students' levels of learning. Reflecting on the deliberations of the annual meeting, Ayres notes that 'With striking unanimity they (superintendents) voiced the conviction that any attempt to evaluate the teaching of spelling in terms of the ability of the pupils to spell was essentially impossible and based on a profound misconception of the function of education' (Ayres, 1912, p.300). To the superintendents, good teaching was a normative judgment and they valued good teaching more than efficient or effective teaching.

The debate continued, and in the next decade the educational researchers won their case. In fact, in 1912, a meeting similar to the Atlanta meeting concluded that 'the effectiveness of the school, methods and teachers must be measured in terms of results secured' (Ayers, 1912, p.305). This is not a small victory for the evolution of education as a scientific field of enquiry. In fact, reviewing the history of educational psychology in the past century Berliner notes that 'breaking down the resistance to science as a means for the study of education and promoting scientific findings as a guide to educational policy were most important events in the history of our field' (Berliner, 2003, p.3). At present, research is one of the important tools society has for ensuring that the government policies and practices are thoughtful and effective (NAP, 1999) in all fields including education. Research in educational sciences has guided decisions and investments in education. At present educational research has proliferated both at the institutional and individual level and it has become part of many of the non-traditional departments.

5.3 *Expenditure on education as an investment*

The research contributions by the economists made a significant contribution to the development of education in general, and of primary education in particular. In fact, the major change in educational investment is influenced by the research findings brought out by the economists of education.

Professor Schultz (1962) formalized the empirical evidences on education and earnings in the form of a theory of human capital. According to the theory, education is a process of capital formation – human capital formation. Human capital, like other forms of physical capital, brings returns to investment. Further returns to education are equal to or higher than other forms of investment in education.

Human capital theory and changing view on education

Human capital theory gained ascendancy following the speech by T.W. Schultz on the subject to the American Economic Association in 1960. He argued that expenditure on education are investments in human capital which enhanced labor productivity, furthered technological innovation and produced a rate of return markedly higher than that of physical capital. The initial research results did not differentiate between contributions to economic growth by different levels of education.

The wide-spread acceptance of human capital theory led to a generalized pro-education ambience among strategic groups concerned with accelerating both economic and democratic political development in the Third world countries and/or precluding Soviet influence and the attractions of communism. This attitude characterized not only the academic world but also the international economic community and much of the leadership of the developing countries.

Coleman, James, S with Court, David (1993) *University Development in the Third World*, Pergamon, Oxford.

Following this initial exposition, many economists have attempted to estimate the rate of returns to investment in education (Psacharopoulos, 1994). These research evidences helped in recognizing the role of education to increase national income and personal earnings. Needless to add, the human capital theory and research on the positive contribution of education have helped to consider expenditure on education as a rewarding investment with returns equal to or higher than other forms of investment. This realization has contributed to increase public and private investments in education. This helped to reaffirm the need for investing at least six per cent of the national income on education (UNESCO, 1995).

The 1980s was a decade of fiscal crisis and reduced investment in education. However, this trend changed by the late 1980s. Many government policies were influenced by the human capital theory and were willing to increase allocation to education in the 1990s as can be seen from *Table 1*.

Table 1: Share of education in GNP in selected countries

Countries	1980	1996
Namibia	1.5	9.5
Lesotho	5.1	8.4
Botswana	6.0	8.6
Tunisia	5.4	7.7
Malawi	3.4	5.4
Gambia	3.2	4.9
Brazil	3.6	5.1
Thailand	3.4	5.8
Uganda	1.3	2.6
Ghana	3.1	4.2
Ethiopia	3.1	4.0

Source: World Bank. 2000. World Development Indicators. Washington, D.C.: World Bank.

5.4 Research argued for increased investments in primary education

The rate of returns analysis and the plethora empirical evidences generated based on this frame of analysis showed that marginal returns were higher at the primary levels than at other levels of education (Psacharopoulos, 1994). This formed the basis for increasing investment in primary education. In fact, during the structural adjustment regime, this empirical evidence was used by funding agencies to divert investments from higher to primary education. This was one of the influential policy suggestions by the World Bank (1986).

Research findings on rate of returns by levels of education

Rate of returns analysis is one of the techniques used by policy-makers to make decisions regarding the profitability of competing investments. Research studies have shown that primary education is the most profitable form of investment followed by secondary education and higher education.

Returns are highest in the poorest countries. The returns to education in developing countries averages at 24 per cent for primary, 15 per cent for secondary and 12 per cent for higher education.

Financing education in developing countries: An exploration of policy options, Washington D.C.: World Bank.

A closer examination of the education budgets reveals that the share of education budgets allocated to primary education increased during the 1980s, and it declined at the higher education level in the developing countries. This is a good example of how educational research forms a basis for changing policies and shifting investment priorities in education (Bray, 2002). *Table 2* provides information on some of the countries where a shift in allocation of resources from higher to primary levels took place.

Table 2: Share of budget to primary and higher education in selected countries (%)

Country	Primary 1980	Higher 1980	Primary 1996	Higher 1996
Burkina Faso	32.3	33.7	56.6	18.3
Burundi	38.8	23.8	42.7	17.1
Ethiopia	42.0	19.0	46.2	15.9
Guinea	24.7	31.9	35.1	26.1
Malawi	38.9	30.2	58.8	20.5
Argentina	40.1	22.7	45.7	19.5
Chile	44.7	33.2	60.4	16.4
China	27.6	20.0	37.4	15.6

Source: World Bank. 2000. World Development Indicators. Washington, D.C.: World Bank.

The shift in allocation in favor of primary education was also justified on the grounds of social development. Several research studies (for a review, see McMahon, 2002) over a period of time have shown that: a) an expansion of basic education improves the social indicators of development and helps reduce expenditure in public health and social welfare programmes; b) fertility rates decline with additional schooling. World Fertility surveys show that women with at least basic education have fewer children than their less-educated counterparts; c) more-educated people tend to live longer and healthier than others; d) pre-natal care and the use of hospital facilities are positively correlated with levels of education; e) infant mortality rates tend to be low in countries where the educational level, especially that of women, is higher; and f) educated people very often have easier access to public services and facilities offered. In this sense, acquiring education provides a key to information and a variety of other public services. All of these studies supported an increased allocation to education, especially to primary levels of education. Further, these findings also paved the way for the continued support of the state for education and increased financial support by the multi-lateral and bilateral agencies.

5.5 Investing in primary education for poverty reduction

One of the significant contributions of education is towards poverty reduction (Caillods and Hallak, 2004). Education reduces poverty in several ways – by increasing the income levels of the educated, improving their health and life expectancy, reducing fertility rate and family size. Education contributes to poverty reduction through its contribution to economic growth on the one hand, and through its contribution to reduced fertility and the number of children born to poor families on the other hand. An increase in primary enrolments and an extension of stay of children in the schools until the end of the compulsory levels of education make a difference in terms of fertility rates and poverty reduction.

Investing in primary education for poverty reduction

Uganda, a country where poverty eradication is the over arching goal of public expenditure and education has become the largest component of government spending after Universal Primary Education initiative of 1997. Under the UPE initiative, fees for state primary schools are waived for four children from each household. Within year the initiative lead to a near doubling of the number of children enrolled in primary school. In order to deal with this dramatic expansion, the Education Sector Investment Plan of 1998-2003 envisaged a 50% increase in expenditures on primary schools and a doubling of resources to secondary schools.

Appleton, S. 2001. "Education, income and poverty in Uganda in the 1990s". *Centre for Research in Economic Development and International Trade Working Paper* No. 01/22. Nottingham: University of Nottingham.

Many of these contributions are difficult to quantify and translate in terms of financial returns. However, these non-market contributions make education an important factor in human development. In any case, there seems to be a convergence of views on the need to expand opportunities for the poor and vulnerable to provide access to education and save them from the conditions of poverty. While direct investment in poverty reduction

programmes provides immediate relief to the poor, investment in education to develop the future earning capacities of the poor is a more effective and sustainable strategy for poverty reduction. Unfortunately, the poor are more vulnerable to uncertainty and tend to under-invest in education (Di Gropello, 2006). This again implies the need for continued state support for education and to target public investments in education to primary levels where the poor and vulnerable benefit at a maximum since their share decreases at the further successive levels of education.

These research evidences culminated in political commitments and increased allocation by international and bilateral agencies and national governments to primary education. Since the 1990 Jomtien and 2000 Dakar conferences, strong focus has been given to primary education, particularly in Africa and Asia. Consequently, in many countries, resources available for primary education have increased and gross enrolment ratios are getting closer to the universal level. Studies have shown that the primary school completion gap between the rich and poor countries has diminished.

District Primary Education Programme (DPEP)

Since October 1993, seven district primary education projects in India under the DPEP framework have been approved and are still going on for \$1.2 billion in gross commitments from the World Bank and with a large amount of parallel donor financing. These projects focus on increasing access to primary education for the disadvantaged, particularly children from scheduled tribes and castes and girls; capacity building; and quality improvement.

These efforts are accompanied by high Government commitment, innovative thinking, and an emphasis on carrying out project preparation work with local staff only. Overall, about 50 million children have been involved, and a large enrolment increase, especially of girls, has been reported in most of the deprived areas.

India: The challenges of development. Washington D.C.: World Bank. 2001.

5.6 Prioritizing investment within primary education

Invest in school buildings: Educational investments in primary education focused on increasing access conditions. This implied the opening of new schools in remote and rural areas. Investing in new primary schools and on new teachers became the priority area for investment within the primary sector of education. The research on locational planning and school mapping (Hallak, 1976) helped to identify the appropriate locations to make the resource allocation more efficient and effective. Many national governments have relied on school mapping exercises to provide primary education facilities to the children. In fact, many national governments, at times with the support of the donor agencies, undertook school mapping exercises to arrive at appropriate school locations and investment decisions within primary education.

Invest on teacher development: When schooling facilities increased and new schools came into existence, there was a shortage of teachers in many countries. Therefore, investing in teacher education and training became an area of priority. In many instances, qualified teachers were not available and therefore candidates with qualification levels lower than a secondary school certificate were recruited as teachers. They were trained by teacher

training institutions. National governments and funding agencies invested in teacher development – the opening of teacher education colleges and introducing pre-service teacher training programmes. Some countries such as India have established sub-regional level primary teacher training institutions, such as the District Institute of Education and Training (DIET).

District Institutes of Education (DIETS)

The New Education Policy in India in 1986 envisaged the establishment of District Institutes of Education and Training (DIETs) to provide academic and resource support for elementary and adult education, and to strengthen teacher education and support to primary schools.

The specific functions of the institution included: i) **training and orientation** to elementary school teachers (both pre-service and in-service education), head teachers, instructors and supervisors of non-formal and adult education, etc; ii) **academic and resource support** to the elementary and adult education systems in the district through extension activities and interaction with the field, provision of services of a resource and learning center for teachers and instructors, development of locally relevant materials teaching aids, evaluation tools etc., and serving as an evaluation center for elementary school and programmes of non formal and adult education; and iii) **action research and experimentation** to deal with specific problems of the district in achieving the objectives in the areas of elementary and adult education.

Education For All in India, Ministry of Human Resources Development, Department of Education website, New Delhi, 2007.

With the progress of EFA programmes, the problem of teacher scarcity may continue to persist in African countries. In a study undertaken by UNESCO in 2003 studying 49 teacher training institutions in Sub-Saharan Africa, it was revealed that there is a growing need for a large number of qualified teachers in Africa to attain EFA and MDG goals by 2015. UNESCO predicts that Africa needs at least three million more teachers to cope with increasing enrolments. This calls for universities to reassess their priorities and to develop new approaches that are responsive to the new demands for teachers (Harvey, 2004). Further, many countries studies are carried out on teacher requirements. For example, as part of the Primary Education Development Programme (PEDP) in Tanzania, yearly estimates of teacher requirements to meet the enrolment targets are made (UNESCO, 2005).

The studies on HIV and AIDS and their impact on primary school teachers (Castro, Duthieul and Caillods, 2007) show that teacher absenteeism due to attending funerals, chronic illness, or looking after the sick at home is high in countries of Africa. The UNESCO (2004) team reports that the loss of teachers to the system due to HIV and AIDS is huge. These research studies call for making necessary adjustments in teacher projections to take into account the new realities in the region and also to adopt flexible policies to overcome difficulties arising out of teacher shortages.

Shift in priorities from pre-service to in-service teacher training: Over a period of time, teacher qualifications improved; so also their training (pre-service) status. The need for regular retraining was felt to up-date the teachers with recent developments and re-orient them to the changing pedagogical methods. As part of the shift in focus from increasing access to improving quality, the need for in-service training was felt and this was reflected in the budget allocations, especially of the externally-funded education projects. Research studies in many countries (for example, see SACMEQ reports) have indicated the importance of teacher competencies in improving student learning. In some instances, the subject competency of the teacher is questionable. While analyzing the reasons for the poor performance of students in mathematics in Namibia, it was found that only 20 per cent of the teachers in four of the seven regions attained mastery levels in the test administered to grade-6 children in mathematics (Nzomo and Makuwa, 2007). This set of studies and others indicated the need for enriching the subject knowledge and pedagogical skills of the teachers already in service.

The in-service teacher training is of two categories: a) upgrade qualifications for those who entered the system with qualification levels less than the prescribed levels; and b) refresher training programmes to familiarize and update their knowledge and pedagogical competencies. Many countries are now in the process of revising the teacher training curriculum and also introducing new modes of training. The Zambian Teacher Education Reform Programme (ZATERP) introduced, as with support from DANIDA, is a case in point.

Investing in learning materials improves learner achievement

Research studies have shown that the quality of school in developing countries far outweighs the influence of home in determining student learning. Investing in classroom materials is very rewarding. For example when Philippines government decreased student textbook ration from 10:1 to 2:1, the proportion of students achieving at their 'proper grade level' increased from 50 to 70 per cent in one year.

The Philippine government launched a world Bank assisted project (US\$ 37 million) to remedy the lack of text books in the public schools. In the first year of implementation (1997-1998) of the project nearly 20 million first and second grade textbooks in science, mathematics and Filipino were produced and distributed.

At the end of the first year two school districts were selected and random samples of 30 and 70 per cent were drawn. Achievement tests were administered to students of grades 1 and 2 from these sample districts. The improvements in learning achievement were substantial – the mean scores attained by 50 per cent of the students without textbooks was achieved by 69 per cent of the students with textbooks. These learning gains were achieved by 8 million students in the nations' schools. Further, the survey indicated that students from the poorer background benefited more from the project than those from relatively better socio-economic background.

Investing in Children: The Economics of education, Economic Development Institute. Washington D.C.: World Bank. 1986.

From investing in creating schooling facilities to invest in facilities in schools and classrooms: Research studies have shown that children are not learning as much as they are expected to. Many do not attain literacy and numeracy skills even after remaining in the primary schools for several years. Studies (Michaelowa, 2001; Varghese, 1995a) have shown that one of the reasons is the lack of a learning environment and poor facilities in the schools, and the lack of conducive teaching-learning conditions in the classrooms, including the non-availability of textbooks and learning material among children. Many efforts have been made to improve the material conditions of the classroom. Countries such as India started schemes, like the Operation Blackboard in 1986, to equip the classrooms.

The provision of textbooks to children and teaching material among teachers are part of an effort to improve learning conditions in the classroom. The priorities of the national governments and the donor agencies shifted from constructing schools to investing in quality augmenting inputs. In some of the externally-funded primary education projects of the post-1980s, the share of budget provision for construction activities was restricted to nearly one-fourth of the total project budget.

5.7 Research on teachers and teaching

Learning is at the heart of the educational purpose and process. Teaching is a good aid for children to learn. The assessment of teaching and measurement of learning have attracted the attention of researchers in education. It is not surprising to find volumes of research on what is being taught (curriculum), how children are taught (teaching process), teacher training and development, test and measurement of student learning, etc. The attention put on teaching is not surprising because that is the most important human resource in transforming the child in a learning environment. Further, teachers are the most essential and expensive input in the educational process. Salaries account for more than 90 per cent of the current expenditure at the primary level of education. Therefore, the effective utilization of teachers and their time is an important resource-saving source.

In fact, the 19th century psychologist Johann Friedrich Herbart and his disciples (Herbatians) developed and promoted important steps for teaching any subject. They are: i) preparation of the minds of the children; ii) presentation of the material; iii) comparison; iv) generalization; and v) application. A close examination of the teaching process in many situations will reveal that these essentials are followed today even though disciplines have diversified and contents have changed.

Further, the research on teaching contributed to the evolution of the observational method in educational research as a recognized and accepted method of enquiry. Classroom observation methods are very important tools in assessing the effectiveness and understanding the teaching-learning process in the classrooms.

Several researchers have tried to describe the characteristics of good teaching. One such description (Smith, 1980) shows that good teaching: i) tests pre-requisite skills; ii) provides feedback to the teacher; iii) adapts to individual differences; iv) provides feedback to students; v) is flexible; vi) promotes active student learning; vii) motivates students; and viii) is clear and well organized.

Based on an intensive meta-analysis of teaching strategies, Professor Brandt of McCrowell Regional Laboratory in Colorado recently concluded that the single most effective strategy is to have students compare, contrast, classify, and make analogies and metaphors. This

was followed by eight other effective teaching strategies, including having kids summarize and take notes on what they're learning, reinforcing effort and giving appropriate praise, assigning homework that encourages practice, and having students use non-linguistic representations, e.g. using a symbol or diagram to represent something they're learning.

At times, it is very difficult to capture the teacher effects in learning since the same student is taught by different teachers in the same year, and certainly so over a period of time. The learning that takes place is the cumulative effect of the efforts put in by several teachers. In case one tries to find out the effectiveness of individual teachers, one has to look for both consistency and stability factors (Macbeth and Mortimore, 2003). For example, variations in achievement levels among students taught by two different teachers at a given point of time indicates or measures consistency while the degree of variance over a period of time will give a measure of stability. These two measures are needed to assess the individual effectiveness of teachers. There are research studies which tried to assess the effectiveness of individual teachers (Luyten and Snidjers, 1996) – of the same teacher who taught in two successive grades – and found that variation is reduced by 20 per cent if the same teacher stays with the same group of students. That leaves 80 per cent of the variation across grades that can be attributed to quality differences among teachers. This has serious implications for teacher development programmes.

The research on teachers and teaching has direct and, at times, immediate implications for teacher training activities. They are important inputs for pedagogical improvements in teacher training programmes. One of the most important influences on the contemporary learning theory comes from the basic research on how experts learn and think (NRC, 1999a). Research into successful schools and classroom practices (Walberg and Paik, 2000) indicates that there is scope for making further improvements to make teaching more effective and to enhance learning levels.

Effective classrooms: How teachers manage the classrooms does reflect the effectiveness of teaching and learning. At one level, there is a need to define the minimum teaching-learning conditions that constitute an effective classroom. The availability of facilities for students, teachers and teaching aids defines the conditions of learning in the classroom. The other aspect is how teachers manage the classrooms. At the primary level, there is single-grade and multi-grade teaching. It has been found in some of the research studies (Govinda and Varghese, 1993) that children learn more in the multi-grade situations when they are grouped according to their levels of learning rather than by the grades they represent.

Further, the idea of differentiated instruction (Hall, 2002) has helped in organizing teacher training programmes. The notion of readiness and the zone of proximal development (ZPD) are important while dealing with students and in the teaching-learning process. The ZPD indicates the range at which learning should take place and it implies that skills taught should be slightly in advance of the child's current level of mastery, and that range of skills that can be developed with adult guidance exceeds what can be attained alone (Vygotsky, 1978). Therefore, differentiated instruction may be able to help realize levels of learning commensurate with the abilities of children to learn. These – groupings of children – are practical issues related to managing classrooms to maximize student learning.

The classroom management practices of teachers are influenced by their prior training, experience, and level of motivation (Michaelowa, 2002). Needless to add, the way classroom activities are organized and that the school is managed have a positive effect on

learner management. In fact, it can be argued that the efficiency in school management is a better predictor of learner achievement than the management type (public or private) of the school (Varghese, 1995b). This is a good message to the head teachers of the public schools which are very often under-resourced in the developing countries.

Better classroom management improves learner achievement

A study based on a survey of levels of learner achievement among 5029 primary school children selected from three districts of Kerala, India, attempted to find out factors influencing learner achievement in government and private schools. It was commonly believed that students from private schools perform better than those from public schools. Contrary to this belief, the study showed that students from some public and private schools perform well in the test while students from some of the public and private schools performed poorly in the test. Using Hierarchical Linear Model (HLM) analysis, the study concluded that it is not the management type (public or private), as commonly believed to be, that makes the difference but the management practices at the school and classroom levels that makes the difference in learner achievement. Better trained teachers and effective management of the classroom can produce good results even in resource-poor schools.

Varghese, N.V. 1995. School effects: A multi-level analysis of government and private aided schools in Kerala (India). New Delhi: NIEPA. (Mimeo)

5.8 *Effective schools and student learning*

What constitutes or contributes to improved student learning is an important question subject to considerable research in education. The earlier belief was that the schools made all the difference. The famous Coleman's report (Coleman, 1966) concluded that public schools did not make any significant difference to improved student learning. Children from poor families did not learn well in the schools and he argued that family or socio-economic background played a determining role in student success in schools. This view was strongly challenged by the Professor Edmonds of Harvard University through his research. They analyzed student achievement data from schools from different parts of the country and concluded that poor children in some schools learned far better than in other schools (Edmonds, 1979). However, they, too, could not find an answer to the question of why certain schools made a difference while others did not. In other words, the question 'Do schools make a difference?' (Summers and Wolf, 1977) still remained unanswered to the satisfaction of all those concerned about the issue.

In the next stage of research, the researchers tried to compare successful schools with less successful schools and tried to identify certain characteristics that constitute effective schools which they called correlates of effective schools. These included: i) an orderly school environment, ii) leadership of the school principal; iii) teacher competency; iv) high teacher expectation of student performance; and v) frequent assessment of student progress (Edmond, 1979; Lockheed and Levin, 1991). Their overall conclusion that public schools do make a difference not only contradicted Coleman's report but also provided a sound basis for the continued funding of public schools by the public exchequer.

SACMEQ research on educational quality

SACMEQ was established in 1995 as a collaborative network of 15 Ministries of Education in Southern and Eastern Africa (Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Mainland), Tanzania (Zanzibar), Uganda, Zambia, and Zimbabwe). SACMEQ's main objectives are: (a) to expand opportunities for educational planners and researchers to gain the technical skills required to monitor and evaluate the quality of education, and (b) to generate information that can be used by decision-makers to plan and improve the quality of education. In 2006 SACMEQ was registered in Zimbabwe as an international non-profit developmental organization that is managed by a full-time Director and governed by the SACMEQ Assembly of Ministers. SACMEQ has completed two cross-national studies of the conditions of schooling and the quality of education. SACMEQ's third cross-national study, known as the SACMEQ III Project, commenced in 2006 and is scheduled for completion in 2008. SACMEQ works with UNESCO's International Institute for Educational Planning (IIEP) to develop and implement integrated research and training activities that cover all aspects of research design and execution. SACMEQ shares all aspects of this work with other Ministries of Education by disseminating training materials, specialized software systems, data archives, and education policy reports. A unique feature of the SACMEQ network is the manner by which Ministers of Education are actively involved in the design of its research and the discussion of its research results. This active involvement by Ministers has resulted in the introduction of many important and innovative research topics – including the testing of the literacy levels of both pupils and their teachers, and also the construction and administration of an “HIV-AIDS Knowledge Test” in order to assess whether there are linkages between pupil literacy levels and their capacity to absorb HIV-AIDS prevention messages that are included in official school curricula.

Ross, Saito and Leite (2000) and website: www.sacmeq.org

The Coleman's findings of a weak school effect and strong social background effect did not hold well in the case of developing countries (Simmons and Alexander, 1978). The detailed country studies (in 29 countries) concluded that school factors are a better predictor of student achievement than home background factors in developing countries (Heyneman and Loxley, 1983). These findings suggested that increased investment in primary schools in developing countries and in poor schools have a significant effect on the learning outcomes (Heyneman, 2005), and they improved faith in the school system and increased investments in education by the international development agencies.

We know today, more than ever, why children in some schools learn more and better than in other schools, why schools are organized the way they are, and why some teachers are more effective than others. We now know which are the areas in primary education which need active intervention and support to improve student learning. We have answers – even when they are not fully satisfactory – to all these questions which can help targeted intervention. All of these are the outcome of research carried out by various institutions of higher education. This forms the singular and most important contributions of higher education to the development of primary education. However, there are obstacles to translate the research findings into concrete actions in education.

Assessment of numeracy and literacy achievements in disadvantaged primary school populations in Sub-Saharan Africa

In developing countries where dealing with infrastructure, teacher training and meeting EFA goals are already daunting, the assessment of effective schooling in educational basics, such as numeracy and literacy, can be overlooked. A project initiated by Professor Terry Russell, at the Department of Education, University of Liverpool, and coordinated with Professor Kath Hart, University of Nottingham was conducted to develop formative and diagnostic assessments for use in primary education in disadvantaged areas in the Sub-Saharan region of Africa. Conducted as applied educational research, it solicited direct assistance and participation from local teachers and children in Malawi, Ghana and Zambia and established links with Ministries and higher education institutions in order to develop agreed sequences of progression in achievement, validated by education personnel and confirmed empirically by teachers. DFID financed the project.

From the IAU project on *Higher Education and Research to meet Education For All Goals*, case studies of the North-South Higher Education Institution Partnership, IAU, Paris 2007.

5.9 Contribution to research training

Whether universities are directly involved with research or not, they enjoy almost a monopoly in terms of training researchers. There are different forms in which research training is organized. The post-graduate study programmes are mainly for training research and teaching. The number of students enrolled in disciplines such as education has increased. However, it is important to see the increase in the number of students enrolled in graduate programmes and in doctoral studies.

International Institute for Educational Planning (IIEP)

Institutions, such as the International Institute for Educational Planning (IIEP), have contributed substantially to EFA programmes both through research and training.

Research: Research studies on the quality of primary schools (Carron and Chau, 1996), assessment of learner achievement studies (Ross, Saito and Leite, 2000), supervision and support services (Carron, De Grauwe and Govinda, 1998), studies in educational financing and budgeting, (Peano, et.al., 1997), studies on poverty reduction strategies (Caillods and Hallak, 2004), and on teachers (Gottelmann-Duret, 2000; Duthieul, 2005) are important contributions to EFA.

Training: The other major contribution the institute has been making is in terms of research training and training to prepare plans. Most of the training programmes organized by the institute, including a nine-month long training programme on educational planning and management offered in French and English languages have a very good focus on EFA. The training programmes on educational indicators, EMIS, school mapping, budgeting, and sector diagnosis, etc., directly address issues related to the planning of EFA programmes. Further, the institute helps, on request, countries to prepare their national strategic plans.

Network: Networks such as ANTRIEP (Asian Network of Training and Research Institutions in Educational Planning) and SACMEQ (Southern African Consortium for Measuring Educational Quality) are very good examples of promoting national initiatives in research and planning in EFA and are sustainable models of capacity development in educational research and planning.

The academic staff recruitment pattern in universities has changed. Many universities have started employing part-time teachers and full-time teachers on a temporary basis. While the contribution of these categories of teachers to teaching may be similar to that of the tenured teachers, their contribution to research activities will be rather less.

The International Institute for Educational Planning (IIEP), was created by UNESCO in 1963 to strengthen the capacity of countries to plan and manage their educational systems. It has trained more than 5,000 educational planners. In addition, the institute helps to develop research capacities in the countries, especially in developing countries.

Institutes such as the Institute of Education (IE), University of London, have been offering graduate level courses with a focus on EFA. Further, the IE trains researchers through its doctoral programmes. Nearly 350 students have been awarded a Ph.D for research in education in developing countries. This is in addition to the research projects carried out by the IE (see for details, Annex 1).

5.10 Curriculum and textbooks

Universities have played an important role in developing curriculum, designing study programmes, and preparing textbooks and other instructional materials. In most instances, the Ministry of Education plays an important role in facilitating curriculum development. They constitute committees which include experts drawn mainly from the university sector. As a follow-up to curriculum development, textbooks are prepared where universities, again, play an important role.

Capacity development for research and curriculum development

The curriculum followed in the primary schools and in the teacher training colleges have not been revised since 1985 in Swaziland. The University of Swaziland, under the funding support from UNESCO Japanese Fund in Trust, is collaborating with four teacher training colleges in the country to review the curriculum for schools and teacher training and also to develop and implement an ICT-based curriculum.

Under the same project in Lesotho, the College of Education of the University of Lesotho in collaboration with the Ministry of Education are training teachers in the areas of educational research, planning and administration. The effort in the project is to enhance capacities of the teacher educators in research and teaching.

The New Partnership for Africa's Development (NEPAD) in partnership with the African Virtual University and UNESCO are developing in-service programmes for science and mathematics teachers through the distance education mode.

Harvey (2004).

Research in the universities will provide information/review of recent developments in curriculum changes in other countries and help to identify the core competencies to be acquired by children at the primary level of education. The academic inputs required for curriculum reforms and the revision of textbooks come essentially from the university sector.

The Nkrumah College of Education in Zambia

The Nkrumah College of Education in Zambia offers training for Secondary School teachers that teach from grades 8 to 12, in all general subjects. Initiated by the former Institute's Director, Ruth Mubanga, the college embarked on a number of programmes and initiatives with various international cooperation agencies which included the projects *Better Secondary School Teachers Trained*, funded by the Flemish cooperation agency and a Nuffic-funded project, *Capacity Development for Management Financing and Administration*, in partnership with Netherlands's Fontys University of Professional Education and Zambia's Technical and Vocational Training Authority. These projects both strived to address the College's overall strategic goals of: curricula development to respond to student and society needs; enhancing learning by the use of various and appropriated teaching methods and improved organizational and operational structures.

From the IAU project on *Higher Education and Research to meet Education For All Goals*, case studies of the North-South Higher Education Institution Partnership, IAU, Paris 2007.

6. Contribution to EFA Training

6.1 Contribution to primary school teacher training

There used to be a view that 'good teachers are born and not made'. In any case, teaching has become a designed activity and training is essential to improve teacher effectiveness. There are two elements in teacher development – the knowledge component and pedagogical component. The knowledge component has two elements – those who transact the knowledge (faculty members in the teacher training institutions) and the curriculum which is designed by the higher education system. While these two roles are clearly defined by the university and come under the responsibility of the universities, the knowledge part of the teacher development may be at times provided by higher education institutions or secondary levels of education depending upon the country in question. Teacher trainers in all countries are trained by higher education institutions (UNESCO, 1990).

Which sub-system of education that is responsible for providing the knowledge component of the teacher development depends on the minimum qualification levels prescribed by the Ministry of Education. The qualification requirements vary – from secondary to higher secondary school levels, or to first degree at the university level. In general, many of the developing countries prescribe secondary or upper secondary as the minimum level of prescribed qualification for primary school teaching. However, it is also true that during periods of expansion of the system, candidates who did not possess the minimum prescribed qualifications were recruited and this has contributed to the growing gulf between the knowledge competencies required and possessed by the teacher. The introduction of para-teachers has further complicated the situation.

Improving the quality of teacher training

Under the management of Dr. Ali Abdi at the University of Alberta and partnered with the University of Fort Hare, this 7-year project aimed to raise the quality of teaching in Eastern Cape, South Africa. Activities included seminars for teachers, teacher trainers and subject advisors in literacy, mathematics and science, visits by UFH education faculty and graduate students to the University of Alberta and Edmonton classrooms, workshops for educational administrators from the Eastern Cape Education Department and the provision of new publications. The project was funded by the Canadian International Cooperation Agency and administered by the AUCC University Partnerships Programme.

From the IAU project on Higher Education and Research to meet Education For All Goals, case studies of the North-South Higher Education Institution Partnership, IAU, Paris 2007.

The involvement of universities in the second component – pedagogical training – also varies from country to country. While secondary school teacher development – knowledge component and pedagogical aspects – are under the university domain of activities in most countries, the involvement of universities and institutions of higher education vary substantially in the case of primary school teacher training. In some countries, universities are directly involved in the training of primary school teachers; in other countries, primary school teachers are trained by colleges and Teacher Training Institutions (TTIs).

In Asian countries such as Bangladesh, India, Nepal, Pakistan, Vietnam, etc., primary school teacher training (pedagogical training) takes place in institutions of higher education outside of the mainstream university system. This trend is changing in some of the countries. For example, India has recently introduced the Bachelors degree in elementary education; Korea and Thailand, too, have courses for primary school educators and administrators. The East China National University offers courses at the undergraduate, graduate and post-graduate level courses in basic and adult education. Some of the countries in Africa are also thinking of introducing university programmes in basic education leading to a degree.

There are other countries where one finds that pre-service and in-service programmes are provided by the universities. For example, the East China National University provides in-service and pre-service training for school teachers. In fact, it has established a college of continuing education to provide teacher training, especially at the primary level.

In many countries of Africa, the situation is similar to the Asian countries – primary school teacher training is offered by institutions outside the main stream universities. Teacher training colleges offer pedagogical courses. However, in many instances, the universities support and help the teacher training colleges in many respects. This help is very often in terms of a project-to-project basis. For example, the UNESCO-Japanese trust fund project in capacity building shows collaboration between the University of Swaziland and the teacher training colleges in the country to review curriculum and to develop ICT training curriculum for schools and teacher training colleges (Sanyal, 2001). The collaboration between the University of Lesotho, College of Education and the Ministry of Education in providing training to empower teachers to undertake responsibilities of research, planning and administration are interesting indeed.

**Teacher training using ICT francophone des établissements
de formation de formateurs (RIFEEF)**

Developed and financed by the Agence Universitaire de la Francophonie, this network brings together over 450 teacher training institutions in Francophone countries to promote cooperation between these francophone higher education institutions in the overall objective to contribute to improved education quality and the professionalism of education. More specifically, RIFEEF attempts to improve teacher training through the development of distance education and the use of ICT, the development of educational and training research through exchanges, and the development and integration of new and effective pedagogical methods. To achieve its aims, its activities include international colloquiums, regional seminars addressing needs defined by Members, and grants for students-teachers, teachers and teacher trainers to study at a foreign institute.

From the IAU project on *Higher Education and Research to meet Education For All Goals*, case studies of the North-South Higher Education Institution Partnership, IAU, Paris 2007.

The introduction of the system of “contract teachers” has changed the nature of training required for primary school teaching (Duthieul, 2005). The contract teachers vary in terms of the qualification requirements and salary levels. In countries like Niger and Togo, schools have started to employ all new teachers on fixed term contracts. In Cameroon and Mali, public contract teachers receive only about 25 per cent of the traditional teacher salaries. Typically, professional training has been considerably reduced from several years in specialized teacher training institutes to a few months, or even weeks provided by diverse institutions or as on-the-job training under the mentorship of senior teachers. In some countries, the training to become contract teachers is about 3 months of pedagogical training, as in case of Mali and Guinea. The same in countries like Niger is only 45 days.

While in Guinea and Mali, a higher secondary completion exam (“baccalauréat”) is required as a minimum, contract teachers in Niger may also start from the level of completed 10th grade (“BEPC”) if they clear the entrance exam. The new contract teachers in Guinea are known under the name of the training programme “Formation initiale des maîtres de Guinée” (FIMG) – a pilot programme initiated by the World Bank.

The UNESCO Office in Harare organized a meeting of SADC countries in September 2005 (UNESCO, 2005) to support capacity building in basic education in SADC countries. The meeting took stock of the different types of training and modes of delivery of the programmes in these countries, and it deliberated on the ways and means of organizing different types of teacher training programmes. It also brought out the active role played by teacher training institutions/colleges and universities in the respective countries.

Universities contribute to early childhood care and education (ECCE) in terms of offering courses leading to Master’s levels, and of carrying out research and experimentation. Some universities, such as the University of Delhi, organize Daycare facilities to support working mothers.

Linking higher education with ECCE: A case study from India

Lady Irwin College (LIC) is an institution established in 1932 for Home Science Education affiliated to the University of Delhi. Home Science at LIC is an interdisciplinary subject and courses are offered at undergraduate, graduate and postgraduate levels. To provide for practical training in ECCE, a preschool was set up on campus in 1955 named after its founding figure, the Rajkumari Amrit Kaur Child Study Centre (RAK CSC).

RAK CSC has nearly 250 children in different programmes such as: i) Play centre for children 2.5-4 years old; ii) Nursery School for children 4-5 years old; iii) Sangam, an inclusive programme for children with disabilities, 3-8 years old; iv) Setu, an early intervention programme, (below 3 years old); v) daycare for children 6 months to 12 years old; and vi) child, adolescent and family guidance and counseling cells.

Some transformative features of the programme are presented below:

- experimentation and research orientation;
- integration and inclusion of 40-45 children with disabilities. Master's students prepare detailed case-studies of children after observations and guided intervention;
- Daycare facility for young children (6 months to 5 years old) and after-school care for older children (up to 12 years old). Several parents including the college teachers have made use of these services.

Neerja Sharma Ph.D, Department of Child Development, Lady Irwin College, University of Delhi, India

6.2 Training of literacy and adult education instructors

The training of literacy and adult education instructors and workers has not yet developed into a systematically organized and institutionalized activity in many countries. The involvement of the universities and institutions of higher education are not very obvious in training, although they are still active in terms of their contribution to develop materials and curriculum (Sanyal, 1995). However, there are instances, such as the universities of KwaZulu Nata, South Africa, and the University of Namibia, that have undertaken programmes aimed at empowering communities in the areas of adult and non-formal education.

Many universities have adult and continuing education departments. In such cases, these institutions are involved with literacy programmes – designing curriculum, preparing the teaching materials, and the training of instructors, etc. In some countries, the university students invest their time in literacy training activities. This was a common practice in countries such as India, in the context of National Literacy Missions (NLM), in Indonesia.

Department of adult and non-formal education in Namibia

The University of Namibia (UNAM) set up a Department of Adult and Non-formal Education, (DANFE) in 1997. The department was given the task of developing and offering both academic and service programmes in the areas of adult and non-formal education.

In order to develop the programmes, the university conducted a nationwide training needs assessment survey. The results of this research formed the basis for designing the training courses in adult education at the diploma, undergraduate and graduate levels.

The department also undertook a nationwide “Impact Study Project on Improving Non-formal Basic Education Programmes in Namibia”. The project was funded by UNESCO through the Educational Research Network for Eastern and Southern Africa (ERNESA).

The Department took a lead in developing a National Plan of Action for adult learning in September 1998.

Sabo A. Indabawa, University Adult Education Development in Namibia.

At times, universities, especially agricultural universities, are directly involved with poverty reduction activities. The extension service departments of the universities interact directly with farmers and their education.

Contribution to poverty reduction through agricultural extension services

In Thailand, for instance, universities are expected to contribute to poverty reduction. Extension services provided by universities of agriculture include a wide range of activities. In front of such diversity, it may become necessary to clarify the respective roles of the different partners. While university extension services are best placed to play a role of innovation and catalyst, scaling up remains the responsibility of relevant government agencies, particularly Ministries of Agriculture.

However, this distribution of responsibilities is not always easy to follow in contexts where, as a result of the decentralization of extension services to local governments, farmers’ access to such support has declined. Indonesia, the Philippines and Thailand illustrate situations where local governments do not have yet the capacity to fully embrace the new responsibility granted to them in the field of extension services as part of the decentralization policy. In such cases, universities of agriculture are tempted to fill the gap.

Seminar report from the International Seminar on *The contribution of higher agricultural education to learning and development in rural Asia*. China Agricultural University, 25-28 April 2006, Beijing, China. IIEP and Food and Agriculture Organization of the United Nations (FAO).

6.3 *The role of Open Universities in promoting EFA*

One of the areas where universities have played an important role is the training of teachers through distance mode. Open universities, correspondence courses, and other distance education modes have played a direct and important role in primary teacher training. The Chinese Radio and Television University (CRTVU) imparts teacher training at the primary and post-primary levels. The Allama Iqbal Open University of Pakistan offers training to primary school teachers and literacy workers (UNESCO, 1990). The African Virtual University helps other universities and institutions to facilitate training programmes for primary school teachers.

The first annual workshop-seminar on the sharing and capacity building of actors and teacher training institutions in French-speaking Africa was held in 2005 in Senegal. One of the sessions was devoted to the reforms on the training of primary school teachers in sub-Saharan Africa in the framework of EFA programmes. This workshop-seminar is the result of an institutional partnership on the professional development of teachers, under the patronage of the consortium including the ADEA, Center for International Development in Education (CIPGL) at the University of Quebec in Montreal (UQAM), the UNESCO International Institute for Capacity Building in Africa (UNESCO-IICBA) and the African Virtual University (AVU).

Role of the Open University in promoting EFA

The collaboration between universities and schools is a very active field, including a great variety of linkages (e.g. University of Obihiro in Japan). Such experiences demonstrate the contribution of higher agricultural education institutions to Education for All (EFA) and lifelong learning. Yet, in some countries, there is the need for a legislative framework to adequately support and monitor such collaborations (e.g. Malaysia).

The involvement of universities in community development projects and farmers' training programmes can produce significant feed-back effects on the pedagogy used for regular university programmes. The China Agricultural University, for instance, introduced new approaches derived from participatory rural appraisal (PRA) techniques which are changing the academic culture. The University of the Philippines, Los Baños, (UPLB) has similar experiences.

Distance learning constitutes a powerful tool to reach out to remote rural communities. The Central Agricultural Broadcasting and Television School (CABTS) case in China illustrated how the experiences accumulated in ODL with farmers training can be adapted to university outreach.

Seminar report from the International Seminar on *The contribution of higher agricultural education to learning and development in rural Asia*. China Agricultural University, 25-28 April 2006, Beijing, China. IIEP, Paris and Food and Agriculture Organization of the United Nations (FAO).

This seminar helped: to draw up an inventory of the initial and continuing training systems for teachers in the participating countries and elsewhere; to promote the sharing of knowledge and practices in teacher training, notably in basic disciplines and ICTs (Sanyal, 2001); to promote research on teacher training, and; to set down the foundations for a broader institutional partnership on teacher training, including the setting up of observation mechanisms and tools for the teaching profession in the countries concerned.

Digital Enhancement Education Enhancement Project (DEEP)

DEEP is both a research and development project to explore the potential of ICT use for improved teaching and learning, in particular in disadvantaged areas worldwide. Financed by DFID and managed by Jenny Leach at the UK Open University, the 5-year project is partnered with several Southern HEIs, (University of Fort Hare in South Africa, Open Universities in Tanzania and Sudan), the Programme, Planning and Monitoring Unit of Egypt, including the participation of a multitude of local schools and national NGOs. Thus far, study findings have shown that ICT use, if well planned and implemented, could have a significant impact on the professionalism of teachers. The project was developed in consideration of the 2nd MDG of Universal Primary Education.

From the IAU project on *Higher Education and Research to meet Education For All Goals*, case studies of the North-South Higher Education Institution Partnership, IAU, Paris 2007.

7. Contributions to policy and planning

One of the important areas where institutions of higher education have extended support to the Ministry is in the area of providing policy support and the preparation of plans. The support for policy may be provided by universities more in the form of experts in the committees than by formulating plans. Today, policy making has become more broad-based, has close linkages with developments outside the country, and is at times influenced by the agenda agreed upon by the international agencies and donor community.

Planning is an activity carried out by specialized institutions working closely with the ministries of education. In some cases, such institutions may be non-existent in the country and the ministries may be carrying out this task by the planning units within the ministry. Planning involves technical tasks which need training. It involves a review of the system, quantitative projections of students, teachers and financial resources. The International Institute for Educational Planning (IIEP), ever since its inception, has been engaged in developing planning methodologies and strengthening national capacities for planning in the UNESCO Member States (IIEP, 2003). The planning responsibilities, at times, include the developing of a data base, monitoring tools and mechanisms.

One of the challenges in preparing educational plans in the present context is the change in orientation from providing inputs to focusing on outputs. A rising concern with the outcomes of education (student achievement) is one of the most significant shifts in educational policy orientation (OECD, 2007). There is a shift in terms of focusing on inputs to a pre-occupation with what happens as a result of these investments. An important factor to this shift has been the role of the ministries of finance to assess the effectiveness of educational expenditure as a major component of public expenditure.

Many policy and planning activities are carried out by higher educated persons. There are institutions which are specialized in this area. At times, it is difficult to differentiate between research and the planning activities carried out by these specialized institutions. The research carried out by these institutions make a periodic assessment of the enrolment patterns, out-of-school children, etc., and make assessments for making provisions, and help develop plans. Planning and resource allocation policies have changed over a period of time. With a move towards decentralization and school-based management, schools in many instances prepare their own budgets and allocations flow from the ministries/departments directly to the schools. Countries are moving towards formula funding and need-based resource allocation policies (Ross and Levaic, 1999).

Many times, the university community is not well represented in the policy making bodies. Now there are efforts made to liaison these two important segments – research and policy making. The efforts made in Boswana are an example (see the box below).

The Advisory Committee on Education at the University of Botswana

Developed within a cooperation project lead by Ian G. Macfarlane from the Amsterdam Free University at the Centre for International Cooperation, this initiative attempted to address the communication gap between the Ministry of Education and the sole HEI, the University of Botswana, by implementing a simple mechanism for both sides to exchange information and views on matters of common interest. An informal *Advisory Committee on Education* was set-up by university leaders to meet on an occasional basis with the participation of senior members of the Ministry of Education and senior members of the university – and to be chaired by the Dean of the Faculty of Education. Being advisory in nature, the committee has no powers of decision, encouraging open and frank discussion and requires no formal legislation to be passed either within the university or within the Government, facilitating the ease in which it was implemented. Today, the committee meets on a regular basis and issues encompass EFA goals but may include any and all matters with respect to which both parties might have an interest.

From the IAU project on *Higher Education and Research to meet Education For All Goals*, case studies of the North-South Higher Education Institution Partnership, IAU, Paris 2007.

One of the important concerns of the Ministry of Education is in terms of preparing projects for funding agencies. There are examples where the institutions of higher education have played an important role in facilitating the plan preparation process for external funding. The Indian experience of preparing district plans under the District Primary Education Programme (DPEP) is a very good example of such a lead role played by an institution of higher education such as NIEPA (Varghese, 1996) in facilitating the decentralized plan preparation process.

The international community in Dakar in 2000 has committed to providing funds for plans which are ‘viable and sustainable’. This puts pressure on the countries to prepare plans which are technically sound and realistic to implement at the grassroots level. The EFA action plan preparation becomes another area where higher education institutions need to extend their expertise both to draw up the plans and to prepare the report.

8. Higher education research in support of education for all: The IAU survey results

The discussions in the earlier paragraphs were based on a survey of research carried out by higher education institutions which were useful and had an impact on the progress of EFA. They reflect more on contributions made by individual researchers than on commitment by university departments and institutions. What is the extent of the institutional commitment to carry out EFA-related research in the universities and institutions? This was a major concern of the survey carried out by IAU.

The International Association of Universities (IAU) carried out a survey in 2007 on higher education research in support of education for all. This series of survey questions had been developed on the basis of previous work carried out by the IAU and its findings on the role and contribution of higher education and research in achieving EFA goals and elaborated on the discussions that occurred during the IAU 2007 Experts' Seminar held on this theme (IAU, 2007a and 2007b).

The purpose of the survey was to bring out the extent and areas of research on EFA carried out by university departments and research institutions across regions of the world. This questionnaire was sent to the universities, departments, research institutions, etc. IAU sent a total of 525 questionnaires and it received 124 responses, i.e. a response rate of 23.6 per cent. The response pattern from different regions is shown in *Table 3*. The response rate, in general, is low in the case of the Latin American and Caribbean region, and there is no response from certain regions such as Oceania. The response rate from the developed countries, too, is very low at less than 20 per cent. The low response rate can imply either the non-availability of research in the area or a lack of interest in responding to the questionnaires.

Table 3: Response to IAU survey

Region	No. of questionnaires sent	No. of responses	Response rate %
Africa	100	26	26.0
Asia	154	39	25.3
Eastern Europe & Russian Federation	52	26	50.0
Latin America & the Caribbean	85	8	9.4
Oceania	4	0	0.0
Developed countries	128	25	19.5
Total	523	124	23.7

8.1 *Is the research community familiar with EFA movement?*

The questionnaire included questions on the awareness of EFA movement and programmes among those who are engaged in research and working in the higher education sector. A large share of those who responded indicated that they were familiar with EFA programmes. More than 90 per cent of the respondents in Africa, 87 per cent in the developed countries and 78 per cent in Asia, indicated their familiarity with EFA movement and activities (*Table 4*). This seems to be a positive feature and implies that research contribution, if inadequate, is not because of lack of awareness.

Table 4: Familiarity with EFA

	Africa	Asia	Eastern Europe	Latin America	OECD
Yes	20	32	19	6	19
No	2	9	6	1	3
Total	22	41	25	7	22
	%	%	%	%	%
Yes	90.9	78.0	76.0	85.7	86.4
No	9.1	22.0	24.0	14.3	13.6
Total	100.0	100.0	100.0	100.0	100.0

8.2 Are the university departments and institutions engaged in EFA research?

The responses from most of the regions indicated that they are engaged in EFA research (Table 3). Nearly 63 per cent of the departments which responded indicated that they are engaged in EFA research. Again, it is the respondents from Africa (78.3%), followed by those from Eastern European countries (61.5%), that are relatively more engaged in research in EFA when compared with those from Asia (58.7%), Latin America or developed countries.

Table 5: Departments engaged in EFA research

Region	Yes %
Africa	78.3
Asia	58.7
Eastern Europe and Russian Federation	61.5
Latin America and the Caribbean	57.1
Developed countries	56.5
Total	62.4

8.3 Research on EFA goals

Those institutions/departments which have projects on EFA were requested to report on the project they are implementing and their links with six EFA goals. Needless to add, many institutions are engaged in EFA research pertaining to more than one EFA goal. This is one of the reasons why the total responses far exceed the total number of departments which responded positively to the previous question (Table 6). Although there were only 78 departments engaged in EFA research, there were 200 responses to the question on the linkages of the project with EFA goals.

Table 6: Research on EFA goals by region

EFA Goals	Africa	Asia	Eastern Europe	Latin America	Developed	Total
G1. Early childhood	9	12	4	4	8	37
G2. Universal primary education	6	5	5	2	10	28
G3. Learning needs	8	8	6	6	9	37
G4. Adult literacy	9	7	0	1	6	23
G5. Gender equality	8	8	1	1	10	28
G6. Education quality	10	16	10	3	8	47
Total	50	56	26	17	51	200

Table 5 shows the distribution of research projects linking with EFA goals across regions. It can be seen from *Table 6* that a larger number of institutions in Africa carry out research on adult literacy than in other regions. Similarly, a larger share of respondents in the developed world carry out research on issues related to gender equality. Asia invests more on education quality. It is interesting to note the relatively low share of institutions from Latin America that are engaged in research on gender equality and adult literacy.

Table 7: Regional distribution of research in EFA goals

	Africa	Asia	Eastern Europe	Latin America	Developed	Total
G1. Early childhood	24.3	32.4	10.8	10.8	21.6	100.0
G2. Universal primary education	21.4	17.9	17.9	7.1	35.7	100.0
G3. Learning needs	21.6	21.6	16.2	16.2	24.3	100.0
G4. Adult literacy	39.1	30.4	0.0	4.3	26.1	100.0
G5. Gender equality	28.6	28.6	3.6	3.6	35.7	100.0
G6. Education quality	21.3	34.0	21.3	6.4	17.0	100.0

Table 7 provides information on the topic more commonly researched within the same region. Education quality is the major area of research in Africa, Asia and Eastern Europe, while the assessment of learning needs is the major area of research in Eastern Europe and Latin America. Research on early childhood shows a low priority except in Asia and Latin America which have a larger number of research projects on this theme. One interesting trend is that, both in Africa and developed countries, the number of responses to areas of research within EFA goals are more equally distributed (*Table 6*). Surprisingly, research projects on education quality are fewer in number in Latin America and the developed world.

Table 8: Research priorities in EFA goals within regions

	Africa	Asia	Eastern Europe	Latin America	Developed	Total
G1. Early childhood	18.0	21.4	15.4	23.5	15.7	18.5
G2. Universal primary education	12.0	8.9	19.2	11.8	19.6	14.0
G3. Learning needs	16.0	14.3	23.1	35.3	17.6	18.5
G4. Adult literacy	18.0	12.5	0.0	5.9	11.8	11.5
G5. Gender equality	16.0	14.3	3.8	5.9	19.6	14.0
G6. Education quality	20.0	28.6	38.5	17.6	15.7	23.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

8.4 Research themes on EFA

The questionnaire included questions on the research themes identified and researched in the context of EFA. Twenty-two research themes were provided to choose from. The common themes are: teacher training, gender equality, quality improvement, curriculum, and ICT and management (*Table 9*). More than one-third of the projects are in the area of teacher training while 12.5 per cent are on gender equality. Quality, curriculum and ICT are also important research themes.

Table 9: Themes undertaken for research in EFA

Themes	Per cent to the total
Teacher training	35.8
Gender equality	12.5
Quality improvement	10.5
Curriculum	10.5
ICT & management	10.5
Distance education	5.3
Non-formal education	5.3
Others: (Lit./HIV/ community support)	5.3

These trends are in line with the direct involvement of the universities in EFA areas. In most cases, education departments of the universities are engaged in research related to teachers development and teaching. The surprising part is that although education quality is at the top in the priorities of research, it does not seem so when we look at the themes selected for research.

9. Are there obstacles to research involvement in EFA?¹

Apart from the quantitative dimensions, the questionnaire also had open ended questions to gather the perceptions of the departments and institutions on the constraints and possibilities of promoting research on EFA themes. The questionnaire was designed to collect both quantitative and qualitative data from respondents. To gather qualitative information, ranking and open-ended questions were used, including a final question whereby respondents had the possibility to opine freely on the survey's subject matter and highlight aspects not addressed within the survey.

Respondents were asked to rank eleven potential obstacles that could be hindering their respective department's involvement in research activities related to EFA, ranking them on a scale of 0 (representing a no obstacle) to 5 (a major obstacle). These obstacles were then regrouped under seven major themes (see *Table 10*).

Obstructive factors cited by respondents varied amongst the regions, producing some interesting results. Without any surprises, the lack of resources (both financial and material) was considered a primary stumbling block across all regions, with the exception of Eastern Europe.

However, more revealing is that one out of five respondents felt that EFA research was, overall, inadequately recognized, whether it be internationally, within their institutions, or by their peers in the research community. To justify this general "malaise" or sentiment, a number of indicators were highlighted: insufficient research dissemination, lack of publications on EFA-related research, and low appreciation for EFA research.

In addition, poor dialogue among various stakeholders and interested parties, (ex. between higher education and the Government, different levels of education, amongst researchers both regionally and internationally) was equally considered as an important obstacle to increasing EFA research. This finding tended to reflect the prevailing perception that EFA research was not receiving due professional credibility, locally and/or abroad, and whereby dialogue with counterparts and concerned parties could rectify the situation, raising its status within the research community and beyond. This in turn could have a snowball effect, by raising its overall importance within individual higher education institutions priorities.

It is also worthwhile highlighting the considerable importance attributed to the non-awareness of EFA. While Eastern European and OECD respondents may not necessarily be aware of EFA, which would account for its significant ranking, it does remain preoccupying that EFA still remains obscure in African and Asian countries, certainly by institutions, bodies and individuals working in education. This is particularly distressing since national educational policies and strategies are to be specifically designed and strengthened within a National Plan of Action addressing the six EFA goals in a significant number of countries located in these two regions.

It is also worthwhile highlighting the considerable importance attributed to the non-awareness of EFA. It is surprising that Eastern Europe respondents attribute the non-awareness of EFA as the primary obstacle and that respondents located in Asian countries rank this as the second most important hindering factor in greater EFA research. This trend,

¹ This part is based on the analysis carried out and write-up prepared by IAU.

that EFA remains obscure in Asia, is particularly distressing due to the fact that a significant number of Asian countries are engaged in EFA and their national educational policies and strategies are to be specifically designed and strengthened within a National Plan of Action addressing the six EFA goals. On the other hand, it is a promising indication that EFA is well known among respondents in Africa and Latin America.

A second encouraging indication is that, across all regions, respondents expressed the impression that they and the higher education research community, in general, did have the necessary expertise to be engaged in EFA-related research.

Table 10: Primary obstacles ranked by region

	Africa	Asia	Eastern Europe	Latin America	OECD	Total
Lack of resources	32	32	11	44	26	27.9%
Poor EFA research recognition/ support ²	31	17	22	28	15	21.6%
Non-awareness of EFA	6	19	49	0	15	17%
Lack of dialogue	11	14	12	21	16	14.2%
Competing HE priorities/disinterest	9	6	12	0	19	8.8%
Lack of time	11	5	11	7	8	8%
Lack of expertise	0	7	6	0	0	2.5%
Total	100%	100%	100%	100%	100%	100%

9.1 What incentives are required to stimulate greater research?

The ranking of remedies to stimulate greater research tends to mirror results highlighted in Question 7. Respondents indicated that both provision to financing (primarily via direct economic gain and research grants) and international recognition of work being conducted in EFA would enhance professional credibility, thus leading to increased research involvement in this field.

It is important to note that this list of incentives is not exhaustive and addresses only a specific set of predetermined obstacles (*Table 11*). Additional measures proposed by respondents are to follow.

A lack of funds and incentives seem to account for more than 50 per cent of the responses. It seems that the increasing funding for EFA programmes is not reflected in terms of funding for research activities in the universities. One of the reasons for this phenomenon may be that the importance of research in facilitating EFA activities is not fully recognized and internalized by the national governments which allocate funds and the international and donor community which fund EFA programmes.

Table 11: Incentives to stimulate greater research ranked by region

	Africa	Asia	Eastern Europe	Latin America	OECD	Total
Economic incentives (direct/indirect)	35	33	42	34	32	35.2%
Research grants	29	19	30	33	31	28.4%
International recognition of research	14	19	12	17	25	17.4%
Graduate student involvement	14	11	12	17	6	12%
Reduction of teaching load	7	19	3	0	6	7%
Total	100%	100%	100%	100%	100%	100%

9.2 What would facilitate a department's research activities related to EFA?

In the remaining three questions, respondents were asked to opine freely on how else to strengthen higher education research in EFA and for the first time to consider the potential role of international organisations (IO) in this initiative.

Being consistent with previous replies, financial and material support did remain to be a key facilitator to develop research activities in EFA, appearing in almost 1 out of 2 replies (*Table 12*).

Interestingly, in these series of replies, we also saw respondents set out concrete examples of incentives to redress other obstacles highlighted in Question 7 and not defined in Question 8 – poor dialogue, inadequate research dissemination and non-awareness of EFA.

To facilitate greater dialogue, respondents cited the need to create formal channels of dialogue and to foster improved collaboration between higher education, the Government and international organizations, to establish advocacy groups and mediators within faculties of education, higher education institutions and ministries of education, and to organize conferences and seminars. Once considered bastions of ivory towers, there seems to be a trend within the higher education sector to develop new and reinforce existing partnerships such as with ministries, international agencies, the international research community, the higher education sector and, in general, in the education sector, and in a few mentioned cases, with civil society.

To raise EFA-research visibility and legitimacy, publications devoted specifically to EFA-related themes should be created and supported and the international community could be further mobilized through intensified North-South quality research collaboration and exchanges.

For many individuals and agencies directly active in EFA, it may seem incredulous that the non-awareness of EFA prevails among those working in education, especially after being in the fore of educational development for well over 15 years. Nonetheless, as this survey bears witness, this does remain true. International organizations and other stakeholders need to be continuously vigilant to ensure that EFA becomes common knowledge to all. This means that not only its principle goals should be known, but, as emphasized by

respondents, that guidelines and opportunities should be clearly defined and made accessible to those interested in engaging in EFA-related research.

Table 12: Means to facilitate EFA research

	Total
Financing, material and institutional support to researchers/faculties	46.4%
Dialogue, partnerships, forums and seminars	14.3%
Enhanced dissemination of EFA research	12.8%
EFA awareness-raising campaigns (incl. info on funding/opportunities)	12.5%
Creation of an EFA position/group within HEI	4.9%
Reduction of teaching load	4.9%
(Graduate) Student involvement	2.4%
Development of EFA pedagogical tools/methods	1.8%
Total responses	164

9.3 What measures should international organizations undertake to reinforce research in EFA?

Asked to reflect on how international organizations should be best mobilized to strengthen EFA research, not surprisingly, one can observe that international organizations are primarily viewed as key financial donors, mediators in supporting dialogue and networks among various stakeholders, and promoters of EFA (*Table 13*).

In addition, as mentioned above, their role could be expanded to actively support EFA research publications and dissemination, and in the aim to raise EFA-awareness among the research and higher education community, international organizations are sought to develop and deliver training programmes on EFA and in particular, address how research could, or has been, contributing in achieving EFA goals.

Table 13: Recommended roles for international organizations

	Total
Resources, financing and grants	34%
Dialogue/working groups/advocacy	26.4%
Supporting research dissemination and international recognition	22.2%
EFA awareness-raising campaigns and training programmes	13.8%
Development of EFA teaching tools	1.8%
EFA graduate programmes	1.2%
Monitoring systems, EFA evaluation	0.6%
Total responses	167

9.4 Further comments and aspects neglected in the questionnaire

This open-ended and final question produced the lowest response rate with only 46 replies. Respondents were asked to elaborate on any aspects considered uncovered by the questionnaire. In light of a low response rate, one might take this as an indication of the questionnaire's thoroughness on the subject.

It is worthwhile highlighting a few respondents who claimed that they, along with their faculty peers, were unaware of conducting research in EFA-related areas while in reality were indeed doing so. Similar remarks, voiced both by university researchers and international cooperation agencies, were expressed in IAU surveys on Higher Education and EFA and later reiterated during the Maputo Seminar. This trend seems to correlate with the finding that EFA's visibility needs to be raised and continually promoted as a priority in development.

Table 11: Further comments and aspects neglected in the questionnaire

	Total
Organization of international exchanges	8
Unawareness of faculties actually working in EFA-related activities	5
Local/regional collaboration with the North	4
ICT/distance education	3
Dialogue between civil society and HEI	3
Multi-stakeholder dialogue (students, parents, gov.)	3
Government advocacy	3
Financing teachers' colleges	3
EFA pedagogical tools and methods	3
Raising public awareness in EFA	3
Other	8
Total	46

10. Concluding observations

It is clear from the above discussions that the higher education sector – universities, institutions and individuals – together make a substantial contribution to the various aspects of the EFA programme. The role at times is invisible. The discussions indicate how investment priorities have changed and how research findings have influenced such cases. Similarly, for the schools as an organization and for teachers as a community, teaching-learning as a process in schools has changed dramatically over the years. Although it is not possible to establish a one-to-one correspondence between particular research and a particular intervention strategy, the cumulative effect of research findings percolate to policy prescriptions. It need not necessarily be the case that the educational policies of one country be influenced by educational research carried out in the same country. The new ideas infiltrate to the policy level through researchers, experts and international agencies. In any case, the fact remains that institutions of higher education are the primary source of such changes. Similarly, the role played by higher education institutions and their products

in terms of conducting surveys, preparing plans, developing a data base for education, etc., are also an important supportive role which are not very visible.

The roles played by institutions of higher education in terms of providing training – teacher trainers or teachers – teacher education to prospective teachers and involvement in literacy programmes, etc., is more visible. However, the substantive contribution of the higher education sector and its products are in the realm of invisibility which prompts many to ask questions on the contribution of higher education to EFA programmes. Unfortunately, the researchers who are engaged in the research activities themselves do not always identify with the issues of EFA for lack of a clear understanding of the linkages between the research that they are carrying out and its indirect implications for the EFA programme. It seems that the broader role of higher education institutions is not internalized by the actors in the system. In a recent meeting on the role of higher education in EFA (IAU, 2007a), it was clear that there is limited awareness in the higher education sector about EFA activities. Several participants from both development agencies and higher education institutions revealed their unfamiliarity with the EFA programmes and their terminology.

This is a serious issue from the point of view of capacity development. The common argument regards the lack of capacities to plan and implement EFA programmes at the country level. However, what the IAU survey revealed is the non-awareness of EFA programmes and activities by the departments of education in the universities and institutions of higher education in the very same countries. This implies that the capacities that are available at the country level are not adequately mobilized and re-oriented for EFA. This also opens up the avenues for future actions to mobilize more support – research, training and planning – within the countries. However, this requires more direct intervention from the public authorities and prioritization by funding agencies.

One of the reasons for the reduced reliance of institutions of higher education for EFA at the country level is the way research and training activities are organized under the EFA programmes. A recent trend is contracted research. The contracted researchers can be university professors, private firms or consultants. The role of the consultants and private consulting firms in facilitating research has grown in the recent past, one of the reasons being that they bring out results based on swift analysis on focused areas which the policy makers can use very conveniently. They are, at times, promoted by the external agencies extending funding support to EFA programmes. This further de-links EFA from the institutionalized relationship with the higher education sector.

One of the obstacles identified in the effort to link higher education and research with EFA initiatives was due to poor communications between institutions of higher education and ministries of education directly dealing with EFA implementation. A common complaint by researchers is that people in a position of authority do not use the research results and so they gather dust. At the same time, the common complaint by the policy makers is that the research carried out is irrelevant for policy decisions (Coleman, 1989). The emergence of contract researchers fills the vacuum created by the two sets of actors – researchers and policy makers. However, this solution seems to be shortsighted and may not be sustainable in the long run.

It is interesting to note that the higher education sector is blamed for not doing enough in an area which accounts for a major share of their research. This study shows that university departments and institutions of higher education do contribute a lot in various forms. However, there is no institutionalized mechanism to channel these efforts in a meaningful

and more useful manner to educational practitioners and policy makers. The research carried out remains an isolated event rather than an integral part of the EFA activities. At the country level, there seems to be good scope for two types of initiatives: First, to synthesize and integrate the research already carried out by the departments and institutions on EFA related activities, and; second, while commencing new research initiatives, to encourage and activate these departments to make them partners in the process. This will be a long-term solution to the argument on lack of capacities to implement EFA programmes at the country level.

Annex 1: EFA and the Institute of Education, University of London

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This report focuses on the role of the Institute of Education of the University of London in the EFA movement. The Institute of Education is a graduate college of the Federal University of London (www.ioe.ac.uk). The centenary of its contribution to education was celebrated in 2002. Founded in 1902 to deliver high quality training of teachers in England, the Institute continues to fulfill this aim through training over 1000 graduates for their postgraduate certificate in education annually. In addition it offers courses at Masters and Doctoral level, undertakes research and offers an arena for education debate.

Teaching: Taught accredited courses lead to higher degrees in all areas of education and related aspects of the social sciences and professional practice (e.g. health promotion, social statistics). Offered on a full time and part time basis through different modes of delivery (face to face, distance and ‘mixed’ mode) they are structured to meet the needs and working lives of education professionals in many parts of the world. In the academic year 2002-3, 5184 students were enrolled on initial teacher education courses (26%), masters and professional development courses (61%), and research degrees (13%). In 2002-3, 13% of the Institute’s students were from outside the UK. Of these, the majority were from Asia (32%) and the EU (27%), Africa (10%) and Central America/Caribbean (10%), with the balance from non EU countries of Europe, North America and South America, the Middle East and Australasia/Pacific. Seventy one per cent of overall student enrolment was female.

Research: The Institute has long been recognized as a leading centre of educational enquiry. At any one time it hosts over 100 research projects funded by research councils, government departments and other agencies. The scale and excellence of this research attract large numbers of students from all over the world keen to work with scholars at the forefront of education. International research is fostered through active participation in European Union-sponsored programmes, through collaborations with researchers in foreign universities, funded by a range of sponsors, and through the individual research of staff specialized in international and comparative education.

Dissemination and debate: In its first hundred years the Institute grew from a teacher training college to a world-class centre of excellence in educational research and a high profile forum for educational debate. Conferences on myriad education issues are organized for local, national and international delegates and constituencies. Lectures on educational issues by the leaders of the main UK political parties and by education ministers from around the world are hosted. The Institute provides a forum for lively debates involving leading figures in the world of education. Specifically, as we shall see later, the Institute has hosted a number of fora for dissemination, discussion and debate on EFA.

The Institute's work on education in developing countries

As noted above, the Institute began life as the London Day Training College in 1902 and focused initially on the training of teachers to work in elementary schools in and around London. Only a few 'overseas' students enrolled on courses at the Institute during its early years. But in 1927 the Institute established specialized courses for missionaries and prospective colonial government officers. These courses drew their content from educational and cultural traditions and issues at home and abroad and were designed to prepare young people for service in the colonies. During the 1930s small numbers of students from the Gold Coast, Hong Kong, Malaya and the Sudan began to follow studies in the Department known then as the Colonial Department. After the Second World War student numbers mushroomed and their countries of origin diversified. In 1949/50 162 students were enrolled in the Colonial Department, 60% of who were 'teachers from Colonial territories'. In 1949/50, students came from

Basutoland, British Guiana, British West Indies, Canada, Czechoslovakia, Eire, Ethiopia, Fiji, French Togoland, Gambia, Gold Coast, Holland, Hong Kong, Kenya, Libya, Malaya, Mauritius, Nigeria, Northern Rhodesia, Nyasaland, South Africa, Sudan, Uganda, United Kingdom, the USA and Zanzibar. (Colonial Department Annual Report 1949/50)

Over the next half century the work and orientation of successor departments would experience both change and continuity. Major changes in orientation reflected shifts in international political relations and the political independence of former colonies, the creation of inter-governmental bodies (such as UNESCO in 1945), global movements for education and the increasing complexity of funding education in many developing countries. Significant continuities revolved around the commitment to education for all, expressed variously over the years as mass education, basic education, universal primary education and Education for All (EFA).

The Institute's engagement with the Dakar Declaration and Commitment to EFA is expressed through its teaching, research, dissemination and debate.

The Institute and Teaching on EFA

Masters degrees

Education for All (EFA), and several of its predecessor movements (e.g. mass education, Universal Primary Education) have underpinned much teaching in the Institute for many years. As a postgraduate Institute, specialized in Education, and with strengths in the complete range of education specialisms, from pre-school, primary, secondary and special education to adult and basic education, lifelong learning and higher education, it might be said that almost all the Institute's teaching reflects an engagement with the Dakar Declaration and its commitment to EFA. But that would be a statement about *implicit engagement*. Much of our work, especially that oriented towards the education system in Britain, addresses the goals of EFA but with reference to local and national policies and not necessarily with reference to the global movement of EFA.

Other teaching engages more *explicitly* with the Dakar declaration and the commitment to EFA for the analysis of education concepts, policies and practices in specific contexts. This in turn might be further subdivided into two types of intellectual engagement. The first

starts from very specific education issues in the English context and works outwards to cross-cultural perspectives and global declarations. A good example of this approach is the MA 180-credit degree *Inclusive Education*. One of the core 30-credit modules is Inclusive Policy and Practice: cross-cultural perspectives. This module questions a ‘homogenizing approach to the study of national values, practices and policy-making.... and (explores) alternative ... ways in which ‘inclusion’ might be interpreted in different contexts’. The module text refers explicitly to EFA, the Millennium Development Goals and the Salamanca Framework for Action. The course attracts mainly students with work experience in Britain (many from ethnic minorities) but is increasingly attracting overseas students.

The second starts from the global EFA movement and the concept of ‘development’ and works towards the comparative analysis of education issues across a range of contexts. Concepts, issues and theories in the relationship between education and ‘development’ in low and middle-income countries are considered alongside the role of global movements for education such as EFA. A good example of this approach is the cluster of MA degrees on Education and International Development (MA *Education and International Development*; MA *Educational Planning, Economics and International Development*; MA *Education, Gender and International Development*; and MA *Education, Health Promotion and International Development*). Relevant prior experience in education in a low or middle-income country is a requirement for entry to these courses. The 30-credit core shared by each of these degrees, *Learning, Education and Development: concepts and issues* addresses EFA directly through Human Capital and Rights-based approaches, through the distinctions between development concepts, theories and strategies, through the identification of global, national and local influences on the relationship between education and development and through the analysis of specific education issues from economic, political and social perspectives. A second module, titled *Learners, Learning and Teaching in the Context of EFA*, makes even more explicit reference to the EFA framework and in particular its implications for the processes and quality of pedagogy. The module aims include, *inter alia*, (i) the critical examination of current theories, policies, practice and approach to learning and teaching in the context of EFA and (ii) the analysis of challenges faced by government and non government agencies in providing quality education for all. Case studies from a range of countries on multi-grade teaching, refugee education, madrassah education and outcomes-based education are studied alongside the EFA framework, and debates in child and adult learning and literacy. In recent years several of the modules that contribute to the four degree awards (above) have been developed for on-line delivery and increasing numbers of students follow some modules through face to face delivery and some on-line (mixed mode delivery). Current students are based worldwide (including a large group based at the Aga Khan University), including London and the UK. Many MA students write dissertations (60 credits) on EFA themes. In recent years these have included:

- An exploration of stakeholder relationships and priorities and how they impact on ethnic minority education in Laos
- Expanding girls’ education in Bangladesh: a case study of the female stipend programme
- Limits to Girls’ progress in school: a case study in Kenya
- HIV/AIDS Education: sexual and reproductive health needs assessment of pupils: a case study from Zambia
- Continuity and Change in Primary Education in the Pastoral Districts of Kenya

Non-award bearing short courses

Since the 1970s the Institute has organized a wide range of short and special courses on EFA-related issues (e.g. on textbook production, educational supervision and inspection, primary education etc). Some of these courses have been tailor-made for groups of study fellows working on EFA-related programmes and sponsored by governments. Scholarships have usually been funded usually external finance donors or national governments. In recent years series of short courses have been run for education professionals from India, Indonesia and Sri Lanka.

Research degrees

Research on EFA themes is undertaken by students through either the PhD or Ed D programmes. Over the past 40 years some 350 students have been awarded the Ph. D for original research on education in developing countries. Student research addressing EFA themes directly and supervised by staff based in different departments of the Institute has included:

- Multi-grade schools in context: literacy in the community, the home and the school in the Peruvian Amazon
- Achievement effects of multi-grade and mono-grade primary schools in the Turks and Caicos Islands.
- Universal Primary Education as innovation: a study of wastage in an Indian village
- Adult literacy: master or servant?: a case study from rural Bangladesh.
- Some factors related to educational attainment in Indonesian primary schools.
- Female teachers' and girls' access to primary schools in rural areas of Pakistan: a case study.
- Negotiating "education for many": enrolment, dropout and persistence in the community schools of Kolondieba, Mali.
- Development and evaluation of a community-based rehabilitation programme for pre-school disabled children in Guyana.

The Institute and Research on EFA

With over 100 funded research projects focused on the complete range of education specialisms, from pre-school, primary, secondary and special education to adult and basic education, lifelong learning and higher education, we might conclude that almost all the Institute's research reflects an engagement with the Dakar Declaration and its commitment to EFA in the UK and elsewhere. But, as in the discussion about teaching, it is important to distinguish those projects that focus on EFA implicitly and those that address the EFA framework explicitly.

Two good examples of the former are provided by current projects and programmes on pre-school and primary education and adult literacy in England. For some years now the Institute has conducted research *on the effective provision of pre-school education (EPPE)* and effects of pre-school participation on primary school achievement across England. Current research focuses on the effects of pre-school participation on primary school achievement through a longitudinal study of children with pre-school education in 800 primary schools.

The national research and development centre for adult literacy and numeracy (NRDC) is a recently-established centre funded by the UK government's Department for Education and Science (www.nrdc.org.uk). Led by the institute, it is a collaborative venture between several English institutions. It conducts research and development across a broad range, including: ethnographic resources of adult learners' lives; improving the literacy and numeracy of young offenders and disaffected young people; an enhanced birth cohort study; a review of teaching trials in adult literacy and numeracy; information and communications technology; models of adult learning; adult numeracy; and the development of national postgraduate continuing professional development (CPD).

Two good examples of the explicit focus on EFA are provided by the research programme on Learning and Teaching in Multi-grade Settings (LATIMS) and the project on Gender, Education and Development: Beyond Access.

Learning and Teaching in Multi-grade Settings (LATIMS) is a programme of research projects on the extent and effectiveness of learning and teaching in multi-grade settings worldwide (www.ioe.ac.uk/multigrade). Within the context of EFA, millions of the world's children learn in multi-graded classes; yet these classes often remain invisible to national policymakers who design systems to support teachers and learners. The programme of research is designed to raise awareness among policymakers, planners and practitioners of the extent, problems, opportunities and needs of the multi-grade learning and teaching environment, through publications, conferences and its website. The Institute project team conduct research with a range of research partners in Asia, Latin America and Europe and have recently become involved in a World Bank-sponsored network of support for multi-graded classes in Africa (www.worldbank.org/devforum).

The aim of the 3 year *Gender, Education and Development: Beyond Access* project is to contribute to deepening understanding of how to achieve gender equitable basic education. It does this through sharing new knowledge, critically examining practice and undertaking new strategies for communication and learning between various constituencies including policy makers, inter-governmental organizations and NGOs, practitioners, researchers/academics, teacher educators and the general public. A range of different working projects with those constituencies is being coordinated by the project team, including six seminars, a conference and associated publications in books, journals and on the world wide web.

EFA Dissemination and Debate

Throughout the Jomtien-Dakar decade and the recent years following Dakar the Institute has hosted many conferences, workshops, seminars on EFA, many with partner organizations.

During the Jomtien-Dakar decade these included:

Primary Education pre-Jomtien: project lessons for Education for All. May 1991. This 3-day international conference, involving more than 300 participants, focused on the experience and lessons from India, Indonesia, Sri Lanka and Zambia in the implementation of programmes for EFA. The conference papers were subsequently developed into case studies and chapters for a (low-cost) book *Beyond Jomtien* published in 1994.

Assessment in Transition: learning, monitoring and selection in international perspective, July 1993. A 2 day international conference which took the Jomtien EFA declaration as its

spring board, exploring the implications for educational assessment of EFA Goal 3 on learning acquisition. A book with international authorship and readership was published in 1996.

Writing, Publishing and EFA, March 18th 2000. This conference, organized jointly by the Institute, the Southern African Book Development Education Trust (SABDET) and the British Association of International and Comparative Education (BAICE) was part of the London Book Fair and discussed the impact of publishing, textbook distribution and the internet on education in Africa. Speakers were drawn from various constituencies, including the African Publisher's Network, the International Extension College, Maryhill School (Uganda) and the Zambian Ministry of Education, as well as from the Institute of Education.

During the post Dakar years these have included:

Education for All: Dakar and Beyond, June 1st 2000. This one day conference reviewed the proceedings and outcomes of the recent World Education Forum, underlying a range of views on the underlying debates about the achievement of EFA in different contexts; and discussed ways forward and the future commitments for EFA for all who participate in the conference. Most of the speakers at this one day conference – from NGOS, universities, UNESCO, DFID and the Commonwealth Secretariat – had attended the Dakar conference. Current MA students spoke of their contributions to EFA through their research work on education for the girl-child campaigns in Ghana, on programmes to increase the enrolment of girls and recruitment of women teachers in Bangladesh, on the Latin American statement on Dakar and on their involvement in the writing of thematic papers for Dakar.

Adult Literacy, 24th November 2000. This follow-up to the EFA: Dakar and Beyond conference focused on Adult Literacy. Experts on adult literacy from the Institute, the World Bank and the UK's Basic Skills Agency raised issues of concern for the EFA agenda in the UK as well as in Africa and Asia. The conference concluded with the performance of a thought provoking play 'Shout it out', by its author and Learning Project Team. Focusing on Adult literacy issues in England it brought home, very forcefully, to students from developing countries the common purpose of the global EFA movement.

The challenges of universal primary education, DFID's strategy paper. The Institute hosted the launch of DFID's strategy paper on March 13 2001. The Rt Hon Clare Short launched the paper and answered questions from the floor.

EFA : enhancing educational quality and ensuring excellence. dimension, November 21 2002. The conference was co-organized with the Association of Teachers and Lecturers and was the final element of a programme of six seminars and conferences initiated by the Education subcommittee of UKUNESCO to address each of the EFA goals. The conference was also the first of several held to celebrate the Institute of Education's centenary of work in international, national and local arenas (1902-2002) and included contributions from national and local government, inter-governmental organizations, NGO and the Institute. Presenters included UNESCO ADG Sir John Daniel and the Chair of UKUNESCO education subcommittee Christine Watford (an Institute alumnus).

Gender, Education and Development: Beyond Access. A series of seminars (2003-2005) organized by the Institute and its research programmes (above) and hosted by Institutions in London (IOE, October 2003), Nairobi (February 2004), Oxford (April 2004), Norwich

(June 2004). Further seminars are planned for Bangladesh (January 2005) and Ghana (May 2005) and a major conference at the Institute in September 2005.

EFA and the challenge of multi-grade teaching. A series of six one-day national conferences (2001-2004) co-organized by the Institute and national organizations and Universities in Hanoi (August 2001 and May 2003), Colombo (September 2001 and April 2004), Lima (September 2002) and Kathmandu (May 2003). The debate and dissemination functions of these conferences is currently being extended via the participation of Institute staff in World Bank video and online conferences on this theme between September and December 2004 (www.worldbank.org/devforum).

Education for All: Quality Counts. The Institute will host the UK Forum of International Education and Training (UKFIET) colloquium on the EFA Global Monitoring Report on Quality on November 23rd 2004.

Other institute engagements with EFA

In this concluding section various other ways in which the Institute of Education and its staff engage with EFA are noted.

Several Institute staff have been involved in the preparation of round table papers for the Jomtien EFA conference, thematic papers for Dakar and the evaluation of the EFA consultative forum. Institute alumni and former Institute staff are key members of National EFA teams in a number of countries, and played important roles in the pre Dakar Regional Conferences, especially the Africa Regional conference. Alumni and former staff work in a wide range of other EFA-promoting agencies including the multi-laterals (e.g. World Bank, UNICEF, UNESCO), the bi-laterals (e.g. DFID, JICA), NGO and INGO (Oxfam, Action Aid), and of course, schools. Institute staff have contributed research-based background papers for each of the EFA Global Monitoring Reports produced to date. Institute staff position many of their analyses of education in relation to the EFA movement. They contribute regularly to EFA related conferences (e.g. the Commonwealth Ministers of Education Conference held in Edinburgh October 2003) and to the work of bi-lateral, multi-lateral and NGOs in their efforts to promote EFA. Finally they engage 'hands-on' through partnerships with national governments in the production, implementation and evaluation of national and provincial plans for EFA.

The Institute's mission is to pursue excellence in education and related areas of social science and professional practice. In undertaking this mission the Institute strives to adhere to the highest standards of academic rigour in all its work; be guided by a concern for truth and justice; and make a positive contribution to the development of individuals, institutions and societies facing the challenges of change. In its teaching and research on EFA it draws distinctions between the analysis of conditions for EFA and the advocacy of it. Analysis demands the highest standards of academic rigour and a commitment to the search for truth. Local, national and global movements for EFA are analyzed as necessary conditions for EFA. Their influence is assessed alongside many other promoting and impeding conditions of an economic, political and social nature. The Institute's continued advocacy for EFA flows from analysis on the one hand and its continued commitment to social justice and change on the other.

October 11th 2004

References

- Appleton, S. 2001. "Education, income and poverty in Uganda in the 1990s". *Centre for Research in Economic Development and International Trade Working Paper No. 01/22*. Nottingham: University of Nottingham
- Atal, Y. 1995. "Higher education capacity building and social development for the 21st century". In: UNESCO (Ed.) *Higher education and capacity building for the 21st century* (pp.77-84). Paris: UNESCO.
- Ayres, L.P. 1912. "Measuring educational process through educational results". In: *School Review*, (vol.20, pp.300-309).
- Berliner, D. 2003. *Hundred years of educational psychology: From interest, to disdain, to respect for practice*. Tempe, Arizona: Arizona State University.
- Bray, M. 2002. *The costs and financing of education: Trends and policy implications*. Manila: Asian Development Bank; Hong Kong: University of Hong Kong.
- Bourdon, J.; Frolich, M.; and Michaelowa, K. 2005. "Broadening access to primary education: Contract teacher programs and their impact on education outcomes in Africa", Paper prepared for the Annual Conference of the Research Committee, Development Economics of the German Economic Association on "Pro-Poor Growth". Kiel: Kiel Institute for World Economics.
- Caillods, F. and Hallak, J. 2004. *Education and PRSP: Review of experiences*. Paris: UNESCO-IIEP.
- Carron, G. and Chau, T.N. 1996. *The quality of primary schools in different development contexts*. Paris: IIEP (UNESCO).
- Carron, G.; De Grauwe, A. and Govinda, R. 1998. *Supervision and support services in Asia: A comparative analysis vol. 1, and national diagnosis vol. 2*. Paris: IIEP (UNESCO).
- Castro, V.; Duthieul, Y.; and Caillods, F. 2007. *Teacher absenteeism in HIV and AIDS context: Evidence from nine schools in Kavango and Caprivi* (Namibia). Research papers. Paris: UNESCO-IIEP.
- Coleman, J.; Campell, E.Q.; Hobson, C.F; McPartland, A.M; Mood, A.M; Weinfeld, F.D; and York, R.L. 1966. *Equality of educational opportunity*. Washington, D.C.: Department of Health, Education and Welfare.
- Coleman, J.S. 1984 "Issues in institutionalization of social policy". In: Husén, T. and Kogan, M. (Eds.) *Educational research and policy: How do they relate* (pp.131-142). Oxford: Pergamon Press.
- Di Gropello, E. 2006. *Meeting the challenges of secondary education in Latin America and East Asia*. Washington, DC: The World Bank.

- Duthieul, Y. 2005. Lessons learned in the use of contract teachers: Synthesis report. Paris: IIEP.
- Edmonds, R. 1979. "Effective schools for urban poor". In: *Educational Leadership*, no.37, pp.15-24.
- Foundation for International Training (FIT). 1983. *Management of research and training institutes: An Asian perspective*. Ontario: FIT.
- Gottelmann-Duret, G. 2000. Management of primary teachers in South Asia: A synthesis report. Paris: IIEP (UNESCO).
- Govinda, R. and Varghese, N.V. 1993. Quality of primary Schooling in India : A case study of Madhya Pradesh, Pairs, IIEP(UNESCO).
- Hall, T. 2002. *Differentiated instruction: effective classroom practices report*. Washington: National Centre on the General Curriculum (NCAC).
- Hallak, J. 1977. *Planning the location of schools*. Paris: UNESCO-IIEP.
- Harvey, C. 2004. *The role of universities in contributing to education for all in the Windhoek office cluster countries*. Windhoek: UNESCO (mimeo).
- Heyneman, S. 2005. "Student background and student achievement". In: *American Journal of Education*, no.112.
- Heyneman, S.; Loxley, W. 1983. "The effect of primary school quality on academic achievement across 29 high and low income countries". In: *American Journal of Sociology*, vol.28, pp.1162-1194.
- International association of Universities (IAU). 2007a. *Seminar final report, the IAU Experts' Seminar on 'Higher education and education for all: The case of two solitudes?'* Maputo, Mozambique, 25-26 January 2007. Paris: IAU (mimeo).
- International association of Universities (IAU). 2007b. Notes on discussions and recommendations of the IAU Experts' Seminar on 'Higher education and education for all: The case of two solitudes?' Maputo, Mozambique, 25-26 January 2007. Paris: IAU (mimeo).
- International Institute for Educational Planning (IIEP). 2003. *40 years: Planning for change in education*. Paris: IIEP.
- King, K., McGrath, S., Rose, P. 2007. "Beyond Basic Education and Towards an Expanded Vision of Education - for Poverty Reduction and Growth". *International Journal of Educational Development*, (vol. 27, issue 4, pp.349-357) 2007.
- Little, A. W. 2004. *EFA and the Institute of Education, University of London*. London: Institute of Education (Mimeo).
- Lockheed, M.; Levin, H.M. (Eds.); 1991. *Effective schools in developing countries, population and human resources department*, Washington D.C.: World Bank.

- Luyten, J.W.; Snyders, T.A.B. 1996. "School effects and teacher effects in Dutch elementary education". In: *Educational Research and Evaluation*, vol.2, pp.1-24.
- Macbeth, J.; Mortimore, P. 2003. "School effectiveness and improvement: The story so far". In: Macbeth, J. and Mortimore, Peter eds. *Improving school effectiveness*, pp.1-21. Berkshire, UK: Open University press.
- McMahon, W. 2002. *Education and development: Measuring the social benefits*. Oxford: Oxford University Press.
- Michaelowa K. 2001. "Primary education quality in Francophone sub-Saharan Africa: Determinants of learning achievement and efficiency considerations". *World Development*, vol.29, no.10, pp.1699-1716.
- Michaelowa, K. 2002. *Teacher job satisfaction, student achievement, and the cost of primary education in Francophone sub-Saharan Africa*. Discussion paper No.188. Hamburg: Hamburg Institute of International Economics.
- National Academy Papers (NAP). 1999. *Improving student learning: Strategic plan for education research and its utilization*. Washington DC: NAP.
- National Research Council (NRC). 1999a. *How people learn: Brain, mind and experience and school*, Washington DC: NRC.
- National Research Council. (NRC). 1999b. *Improving student learning: A strategic plan for education research and its utilization*. Washington DC: National Academy Press.
- Neave, G. 2002. *Research and research training systems: Towards a typology*. UNESCO Forum Occasional Paper Series No.1. Paris: UNESCO.
- Nzomo, J.; Makuwa, D. 2006. "How can countries move from cross-national research results to dissemination, and then to policy reform? (Case studies from Kenya and Namibia)". In: Ross, K.; Genevois, I.J. (Eds.) *Cross-national studies of the quality of education: Planning their design and managing their impact*, pp.213-228. Paris: IIEP.
- Organization for economic co-operation and development (OECD). 1999a. *Tertiary education for all*. Paris: OECD.
- Organization for economic co-operation and development (OECD). 1999b. *University research in transition*. Paris: OECD.
- Organization for economic co-operation and development (OECD). 2007. *Evidence in education: Linking research and policy*. Paris: OECD.
- Ordenez, V. 2005. "Tertiary education and education for all: Establishing policy linkages". In: *Higher Education in Europe*, vol.30, no.3-4, pp.267-275.
- Ordenez, V.; Maclean, R. 2003. "Impact of educational research on decision making and practice". In: Keeves, J.P.; Watanabe, R. 2003. (Eds.) *International handbook on*

- educational research in the Asia Pacific region*, vol.2, pp.1181-1192. Dordrecht (Netherlands): Kluwer Academic Publishers.
- Peano, S.; Remi, C.N.; Kitaev, I.; Oulai, D. 2000. *Financing and financial management of the education sector*. Paris: IIEP (UNESCO).
- Psacharopoulos, G. 1994. "Returns to investment in education: A global update". In: *World Development*, vol.22, pp.1325-1343.
- Purkey, S.C.; Smith, M.S. 1983. "Effective schools: A review". In: *Elementary School Journal*, vol.83, no.4, pp.427-452.
- Ross, K.; Levačić, R. 1999. *Needs-based resource allocation in education via formula funding of schools*. Paris: UNESCO-IIEP.
- Ross, K.; Saito, M.; Leite, S. 2000. *Translating educational assessment findings into educational policy and reform measures: Lessons from the SACMEQ initiative in Africa*. Paris: IIEP (UNESCO).
- Sanyal, B. 2001. "New functions of higher education and ICT to achieve education for all". Background paper for the roundtable on *University and technology-for-literacy/basic education partnership in developing countries*, 10-12 September 2001, Paris.
- Sanyal, B. 2005. *The role of education in obtaining EFA goals with particular focus on developing countries*. UNESCO Forum on higher education, research and knowledge. Paris: UNESCO.
- Schultz, T.W. 1962. "Capital formation by education". In: *Journal of Political Economy*, vol.68, pp.571-583.
- Simmons, J.; Alexander, L. 1978. "The determinants of school effectiveness in developing countries: A review of research". In: *Economic Development and Cultural Change*, vol.26, pp.341-358.
- Smith, R. 1980. "A checklist for good teaching". In: *Teaching and Learning*, vol.7, no.1.
- Summers, A.; Wolf, B. 1977. "Do schools make a difference?". In: *American Economic Review*, vol.67, pp.639-652.
- Sutton, F. 1971. "African universities and the process of change in Middle Africa". In: Kertesz, S.D. (Ed.) *The task of universities in a changing world*. Notre Dame: University of Notre Same press.
- United Nations Educational Scientific and Cultural Organization (UNESCO). 1990. *Role of higher education in promoting education for all*. Bangkok: PROAP.
- United Nations Educational Scientific and Cultural Organization (UNESCO). 1996. *Learning: The treasure within*, Report of the International commission on education for the twentieth century. Paris: UNESCO.

- United Nations Educational Scientific and Cultural Organization (UNESCO). 1998. *Higher education in the twentieth century: Vision and action*. Paris: UNESCO.
- United Nations Educational Scientific and Cultural Organization (UNESCO). 2000. *Dakar framework of action, education for all: Meeting our collective commitments*. World Education Forum, Dakar, 26-28 April, 2000.
- United Nations Educational Scientific and Cultural Organization (UNESCO). 2004. *The role of universities in contributing to education for all in the Windhoek office cluster countries*. Windhoek: UNESCO (mimeo).
- United Nations Educational Scientific and Cultural Organization (UNESCO). 2005. *Teaching and learning in higher education: Supporting capacity building in basic education in SADC countries*. Harare: UNESCO.
- Varghese, N.V. 1995a. "School facilities and learner achievement: Towards a methodology of analyzing school facilities in India". In: *Perspectives in Education*. vol.11, no.2, pp.97-108.
- Varghese, N.V. 1995b. "School effects on achievement: A study of government and private aided schools in Kerala". In: K. Kumar ed., *School effectiveness and learning achievement at primary stage: International perspective*. pp.261-290. New Delhi: NCERT.
- Varghese, N.V. 1996. "Decentralization of educational planning in India: The case of the District Primary Education Programme", *International Journal of Educational Development*, 1996, vol. 16, no. 4, pp.355-365.
- Varghese, N.V. 2000. "Policy responses to access and equity issues in education in India", in Commonwealth Secretariat ed. *Education in the Commonwealth*, (pp.46-50). Canada: Department of Education Nova Scotia.
- Varghese, N.V. 2004. "Incentives and institutional changes in higher education". In: *Higher Education Management and Policy*, vol.16, no.1, pp.27-40.
- Vygotsky, L.S. 1978. *Mind in society*. Cambridge, Massachusetts: Harvard University Press.
- Walberg, H.J.; Paik, S.J. 2000. *Effective educational practices*, Educational Practices Series-3, Brussels: International academy of Education (IAE), and Geneva: UNESCO International Bureau of Education (IBE).
- World Bank. 1980. *Poverty and human development*. New York: Oxford University Press (for the World Bank).
- World Bank. 1986. *Financing education in developing countries: An exploration of policy options*. Washington D.C.: World Bank.
- World Bank. 1995. *Higher educations: The lessons of experience*, Washington D.C.: World Bank.

World Bank and UNESCO. 2000. *Higher education in developing countries: Peril or promise*, Report of the Independent World Bank/UNESCO Task Force on Higher Education and society, Washington D.C.: World Bank/UNESCO.

World Bank 2001. *India: The challenges of development*, Washington D.C.: World Bank.

World Bank. 2002. *Constructing knowledge societies: New challenges for tertiary education*. Washington, D.C.: The World Bank.

