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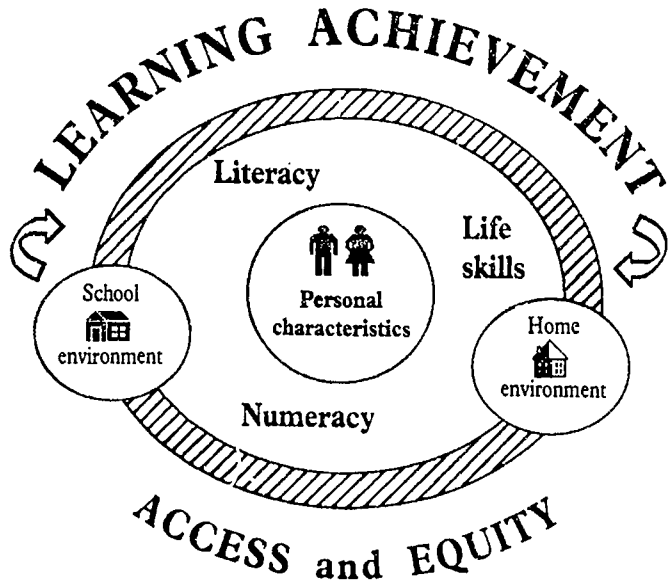
ABSTRACT

The joint UNESCO-UNICEF Monitoring Education-for-All Goals Project was launched in September 1992. The first phase of the project was implemented in five pilot countries (China, Jordan, Mali, Mauritius, and Morocco) with the express aim of providing national decision makers with practical tools for monitoring basic education in their countries and building national capacities. Each pilot country has developed a simple, workable, and sustainable methodology for monitoring basic education with a focus on learning achievement in terms of literacy, numeracy, life skills, and other factors that influence achievement. Each country has established a national task force, identified representative samples of schools and students, and conducted pilot tests of survey instruments and data analysis. Each country has begun writing a national report. The second year of the project will add eight countries, which will draw on the experiences of the pioneer five to develop their own monitoring systems. Eight tables present study findings, and seven tables in two appendixes present supplemental detail. (Contains 22 references.) (SLD)

Monitoring Education-For-All Goals

Focussing on Learning Achievement

Progress Report on the Project's First Five Countries



CHINA
JORDAN
MALI
MAURITIUS
MOROCCO

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MONITORING EDUCATION-FOR-ALL GOALS

Focussing on Learning Achievement

A JOINT UNESCO-UNICEF PROJECT

Progress Report

(September 1992 - March 1994)

UNESCO, Paris

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Executive Summary

The joint UNESCO-UNICEF **Monitoring Education-for-All Goals Project: Focussing on Learning Achievement** was launched in September 1992, with the setting up of a central project team at UNESCO Headquarters. The first phase of the project was implemented in five *pilot* countries (China, Jordan, Mali, Mauritius and Morocco) with the express aim of **providing national decision-makers with practical tools for monitoring basic education** in their country and **building national capacities.** Following a number of in-country (identification and capacity-building/training) missions by UNESCO, and a series of international, national and sub-national training workshops and other technical assistance as needed, each country:

(1) has successfully developed a **simple, workable and sustainable methodology for monitoring basic education with a focus on learning achievement** - including literacy, numeracy and life skills as well as other factors (personal characteristics, school and home environment and factors of access and equity) which also influence learning achievement;

(2) **has established a national task force, representative samples of schools and pupils, conducted pilot testing of the survey instruments, carried out the main survey and analyzed data** (using SPSS-PC software, as trained by UNESCO); and

(3) **has begun writing up its national report**. At present, a sample of selected findings from the project in China, Jordan, Mauritius and Morocco is being sent to UNESCO Headquarters for further analysis.

The UNESCO team in Paris is preparing the International Report, to be completed by June 1994. An additional group of 8 countries has been selected to participate in the second year of the project. Three of them - India, Oman and Sri Lanka - have already begun on their project design, instruments construction, and data collection based closely on the experiences of the first five pilot countries through the project's in-built Technical Co-operation among Developing Countries (TCDC) mechanism. The experiences from the first five countries are now being analyzed to produce in the form of a **Booklet** the conceptual, methodological and analytical framework of this project (e.g. core sets of basic education indicators with model questionnaires and tests, sampling software, and programmes for data entry, data analysis and report-writing) as a helpful guide for the other phases of the project.

"... The basis of all monitoring is the establishment of efficient approaches to the collection, interpretation and use of all the various kinds of data. Thus, countries need to develop their own capacities for information-based management of education. It is the task of the various agencies to assist in this enterprise through direct technical assistance and by building inter-agency co-operation and dissemination networks..."

Colin N. Power
Assistant Director-General for Education, UNESCO

I. THE JOINT UNESCO-UNICEF MONITORING PROJECT

The Mandate

The World Declaration on Education-For-All, adopted at Jomtien in March 1990, pointed to the need "*to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievement*".

It is widely recognised that merely improving the supply of education -- **quantity** -- is not enough, and an improvement in **quality** is considered vital. Quality is obviously more difficult to measure, evaluate and compare.

But, appropriate systems of assessment which were at the same time flexible and country-specific needed to be developed. Existing models failed to take into account the different educational needs of each country and differences in national capacity to carry out reliable assessment.

The joint UNESCO/UNICEF project on Monitoring Education-For-All Goals: Focussing on Learning Achievement, begun in September 1992, was designed to answer this need for a new type of monitoring. Because the primary objective is to help countries design their own models -- and not to hand over ready-made instructions on "how-to-do-it" -- the focus has been **to assist countries in developing tools which will work for them**. Unlike traditional forms of evaluation, based largely on rigid, normative and standardised procedures, the

Monitoring Project stresses flexibility, openness and the opportunity to correct weaknesses -- to learn from one's mistakes -- at every step, thus giving monitoring the true meaning it deserves.

In early 1994, three more countries -- India, Oman and Sri Lanka -- began work on their project designs, based on the overall framework that has already emerged from the Monitoring Project. The participation of these countries is a direct result of regional co-operation, as their activities are based closely on the experiences of the first five countries. Moreover, the highly favourable inter-agency climate that has been noted and commented upon at the field level has also facilitated their smooth integration into the project.

Inter-Agency Partnership

A fine example of inter-agency co-operation, the Monitoring Project benefits from the joint participation of UNESCO and UNICEF. The central team at UNESCO Headquarters serves as a "think-tank" for the project, providing technical expertise and promoting exchanges between participating countries. The team is responsible for conducting training courses -- both at Headquarters and in-country -- and for designing and pre-testing the main software to be used.

Besides funding support from UNICEF to the project, i.e. the support to the project team at UNESCO and sizeable additional funds for in-country project execution, all five UNICEF country offices participate through consultations with the government and the national task force, from the planning stages to the implementation of the project. In the Monitoring Project, the UNESCO/UNICEF partnership approach in professional, managerial and financial terms has been extremely valuable for the launching and implementation of the project in the five countries.

Scope and Coverage

Five countries -- China, Jordan, Mali, Mauritius and Morocco -- each with completely different levels of development, climate, political systems and experience in conducting educational survey studies, were chosen as "pioneer" pilot countries.

By the end of first phase of the project (1992-1995), national teams in at least 20 countries will be **fully trained, self-sufficient and ready to undertake the monitoring function on a permanent basis**. The five pilot countries will play a key role as models and resources for others in the respective regions, and will also be the natural hosts for regional workshops and meetings. As the multiplier effect takes over, UNESCO and UNICEF's direct roles will gradually diminish.

The project focusses on primary education, in most cases, Grade IV. Each country was expected to come up with its own set of school-based survey instruments, to be administered on a yearly or two-yearly basis. To ensure success, it was agreed that the methodology must above all be **simple, flexible, doable and sustainable**.

Indicators

The indicators being measured relate above all to basic learning competencies -- literacy, numeracy and life skills. However, other factors which influence "whether people actually learn" -- from personal characteristics (of the students, parents and teachers), home and school environments, to issues of access and equity -- are also an important part of the picture. These factors are measured through a variety of tests, questionnaires and surveys.

Reporting

In order to avoid a rather common mistake of many joint ventures in this field, namely that of embarking on an important but rather ambitious undertaking without taking into consideration implications for report-writing and dissemination of results, report-writing at both national and international levels, was considered crucial from the initial phase of the project. Writing national reports should include: (i) a thorough analysis of the processes

(ii) a feasible plan for analysis and presentation of results that can easily reach a wide clientele -- policy-makers, educators, and front-line implementors -- through different modalities and networking facilities; and (iii) possibilities to contribute and to generate results and findings that can be presented to the international community. The latter is related to international reporting.

A proposal for national and international report-writing was sent in December 1993 to all five participating countries and consisted of the following:

(1) **A process report** on the project: mapping experiences, activities and lessons derived (i.e., from its initial phase -- preparation of the project document, formation of the national task force, in-country seminars, workshops and training, pilot testing, data collection, data entry and data analysis -- up to its final phase which constitutes presentation of the results and writing the final national report).

(2) A complete **set of final instruments** (questionnaires and tests).

(3) The **final sampling design** (planned vs executed).

(4) **A plan of action** for the second and third year activities of the project including the bridges with other projects planned in this field (national, sub-national or international).

(5) A **draft report** which should consist of the first set of findings from the project, (i.e., results on learning achievement by: (a) levels of competence -- below minimum, minimum, above minimum and overall; and (b) domains and sub-domains). Further, these results should be presented according to the sampling design and stratification procedures, (i.e., at national, and sub-national levels -- region, province, district levels, etc., and by school type -- public, private, urban, rural, etc.) and when possible, a breakdown by age, sex, and SES of students.

(6) An analytical framework for treating key factors drawn from the home and school learning environments, and a plan of action for maintaining the sustainability of the project. Linkages with other national and international

(6) An analytical framework for treating key factors drawn from the home and school learning environments, and a plan of action for maintaining the sustainability of the project. Linkages with other national and international projects on learning assessment should be included as well as and possibilities through Technical Co-operation among Developing Countries (TCDC) to serve as a resource country. A resource country plays many roles in different capacities (consultancies, training workshops and seminars) and serves to facilitate the process of establishing and/or strengthening a national monitoring system for learning achievement in the various phases of this international project in other countries.

II. MAJOR OUTCOMES OF THE PROJECT

To ensure the successful implementation of the project in the five pilot countries, different monitoring exercises were pursued. This section presents the major outcomes of the project from the standpoint of:

(1) the step-by-step modalities used in launching and in implementing the project at the country level;

(2) the mechanisms designed and implemented to ensure a critical-mass approach to national capacity-building in order to maintain a sustainable monitoring system for basic education at national and sub-national levels; and

(3) the methodological framework designed and implemented in order to ensure the development of country-specific design and application.

The Step-by-Step Approach of the Five Pilot Countries

Different modalities and activities were designed to prepare, launch and successfully implement the project in the first five countries from September 1992 to the present (see Table 1). Based on project identification missions and an International Workshop on capacity-building (February, 1993) which brought together the five countries:

(1) Each country has developed a simple and sustainable methodology for monitoring basic education with a focus on effective learning achievement of primary school pupils in Grade IV, including literacy, numeracy and life skills. Some countries have also chosen to monitor learning achievement of other grades (VI & VIII) as well as adult literacy programmes. School-related factors, students' personal characteristics and conditions linked to the home environment are examined in order to assess their influence on learning achievement.

(2) In each country the national task force has been established and trained, representative samples of schools and pupils drawn up, survey instruments

developed and pilot tested, the actual field surveys carried out, and the data analyzed. A special software developed by UNESCO was used and disseminated through training courses. Of the five countries, only Mali lags behind, since some project activities had to be postponed due to student unrest and closing of schools.

(3) Writing national reports has started and a sample of selected findings from the project in China, Jordan, Mauritius and Morocco has been sent to UNESCO for cross-country analysis.

(4) The "international report", to be prepared by the UNESCO Monitoring Project team, should be ready by June 1994.

Table 1: PROJECT STATUS IN THE FIRST FIVE COUNTRIES (SEPTEMBER 1992 - MARCH 1994)

STATUS	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
1. Identification Mission (UNESCO)	X	X	X	X	X
2. Project Document	X	X	X	X	X
3. UNICEF In-Country Funding	X	N.R.	X	X	X
4. National Task Force	X	X	X	X	X
5. International Workshop (February 1993, UNESCO. HQ)	X	X	X	X	X
6. Capacity-Building *cum* Training in Survey Methodology/Data-Entry/Data Analysis/Report Writing	X	X	X	X	X
7. National Design and Instruments	X	X	X	X	X
8. Pilot Testing	X	X	X	X	X
9. Main Data Collection	X	X	---	X	X
10. National Report Writing (*)	X	X	---	---	X
11. International Report Writing (*) (UNESCO)	---	---	---	---	---

Note: **X - Activity successfully completed**
N.R Activity not requested
--- Activity is still ongoing
(*) Analysis is in process

Identification Mission

After the pilot countries were chosen, the UNESCO team carried out identification missions in each country, to collect background material and help each country set up national task forces and begin the preparation of Project Documents.

The National Task Force

The national task force is in charge of co-ordinating all project activities in the country, working independently but closely with UNICEF and UNESCO, and is responsible for the design and proper administration of the surveys. It oversees the collection, analysis and reporting of data and is responsible for project budgeting and accountability. An important part of the task force's role is to select and train local personnel to participate in the collection and analysis throughout the country, putting into play the "**multiplier effect**", whereby trained personnel train others, who in turn train others, and so on.

Selection of the national task force is the first and perhaps most important step in national capacity-building, as the ultimate aim is for each country's monitoring system to be **self-sufficient** after three years. Table 2 shows the make-up of the national task force in each of the pilot countries. The table shows how the composition of the national task force varies from country to country, depending on where the available expertise and manpower can best be found.

Project Document and Funding

During the preparatory identification mission, the UNESCO team helped in the preparation of project documents and detailed budgets to be presented to UNICEF, to ensure that appropriate cost-effective funding was requested and that it was presented in the most effective way.

Table 2: The Project National Task Force in the Five Countries

China	*Project Coordination* Department of Basic Education, State Education Commission *Task Force Members from* China National Institute for Educational Research Capital Teacher Training College Curriculum and Teaching Material Research Institution of the People's Education Press Provincial and County Level Bureaus and Units for Educational Research
Jordan	*Project Coordination* National Centre of Educational Research and Development *Task Force Members from* Directorate of Curriculum Planning, Research and Statistics Regional Directors
Mali	*Project Coordination* Secrétariat d'Etat de l'Education de Base *Task Force Members from* Institut Pédagogique de l'Education Directions Régionales de l'Education Inspection de l'Enseignement Fondamental
Mauritius	*Project Coordination* Mauritius Examination Syndicate *Task Force Members from* Master Plan Nine-Year Schooling Sub-Task Force Master Plan EMIS Sub-Task Force Master Plan Rodrigues and Agalega Sub-Task Force
Morocco	*Project Coordination* Direction de la Planification de l'Enseignement Fondamental *Task Force Members from* Division des Etudes et Objectifs Division des Statistiques Division de l'Information et de l'Orientation Bureaux Régionaux et Provinciaux

Drafting a thorough project document is crucial for the success of the Monitoring Project. The more comprehensive the preliminary documents are in defining the **context, specific needs, strengths** and **weaknesses** in a system, the more accurately the monitoring process can be designed and adapted to a country's particular needs.

An examination of the project documents prepared by the five pilot countries shows the diversity of problems to be addressed by the Monitoring Project, given the different levels of development, financial constraints, educational priorities and size and geography of each country.

A good project document should include:

(a) **background** which defines the context of the country's educational system as well as other relevant factors about the country (size, geography, development issues, etc.).

(b) a detailed **project design** which includes the objectives and expected outcomes of the surveys and descriptions of the survey instruments and the samples to be used. Ultimately, the project design should seek to answer the questions and problems set out in the background section of the project document.

(c) a **calendar** with target dates for each step of the project (which can be modified along the way); and

(d) a **budget** which is feasible and which paves the way for greater sustainability.

Based on its background analysis, each country clearly defined its objectives:

-- **China** sees its major challenge as the need to reduce and eventually eliminate the gender gap, reduce regional disparities and inequities and improve educational quality. Therefore, in addition to the general objectives of the Monitoring Project, the Chinese have added the goal of determining the extent to which learning achievement of pupils varies across regions/provinces within the country as well as regions/counties within selected provinces.

-- **Jordan** considers that "issues of regional, gender or ethnic disparity in the accessibility of basic education-for-all have nearly been resolved" in the country. The major aim of the Monitoring Project therefore is to "improve the quality of education and enhance learning achievement levels". Information collected for the purposes of this project will also serve as baseline data for measuring the results of its on-going Educational Reform Plan.

-- **Mali** also concentrates on reducing regional and gender disparities and general improvement in the quality of education offered. A number of factors linked to the problems (and the process of improving them) are identified -- finance, management, follow-up activities, school materials and infrastructure, teacher training, etc. The production of valuable baseline data is especially important in Mali.

-- The **Mauritius** project document pointed out the weak points in the education system -- overemphasis on examinations, practices which may favour more well-off families, etc. -- and recognised the "social and moral obligation" to improve the quality of education for all children.

-- **Morocco** also stressed the importance of reducing disparities between rural and urban areas and between the sexes in defining the country's specific objectives. The Moroccan project expects to work closely with an on-going UNICEF project on promoting girls' schooling in rural areas.

Building National Capacities

The overriding aim of the project is to develop countries' capacities in monitoring basic education goals and to set up, train and support national monitoring teams.

This must begin with the careful selection of in-country partners (the national task forces, the people who will carry out the surveys and analyze the data, etc.) and be followed through

with intensive and effective training, through seminars and workshops in-country as well with other countries (for example, regionally, or at UNESCO Headquarters).

Table 3 shows the effects of the workshops that have been held in each country by indicating the number of training personnel involved as well as the target population. While it is important to work closely with the policy-makers and front-line implementors (for example, in the education ministries and in the sub-national educational authorities), the project counts heavily on the multiplier effect, whereby a large number of professionals are trained and in turn train others, and an even larger number of individuals are reached.

Table 3: National Capacity-Building: Modalities and Outputs

	Number of National Workshops	Number of Core Trainers (*)	Number of Sub-National Workshops	Number of Peripheral Trainees (**)
CHINA	7	114	22	6645
JORDAN	5	53	18	195
MALI	3	12	3	64
MAURITIUS	3	38	8	52
MOROCCO	8	37	9	103

Note: (*) **Core Trainers** - policy makers, front-line implementors, experts and specialists
(**) **Peripheral Trainees** - regional, sub-regional officers, inspectors, area supervisors and teachers

Successful capacity-building should not be judged, however, simply in terms of the number of people reached, but rather relatively, i.e. in terms of the efficiency in the use of available capacity.

International Workshop on Survey Methodology

An intensive one-week Workshop held at UNESCO Headquarters in February 1993 was attended by national co-ordinators from the five pilot countries, two observers from Madagascar, representatives from UNICEF and UNESCO as well as a selected group of experts and consultants in the field of educational evaluation and learning assessment. Its purpose was to finalize the overall design for the Monitoring Project, taking into account the specific needs and experiences of the pilot countries (see Schnüttgen, 1992 for more details on the purpose and outcomes of the Workshop). Drawing on each other's experiences as well as the technical assistance offered by UNESCO, participants left the Workshop with a better understanding of the principles of a workable survey methodology, and brought home with them an agreed conceptual, methodological and analytical framework in order to fine-tune the country-specific design, sampling procedures, instruments (tests and questionnaires), data collection, analysis and reporting procedures. Aspects of quality control were emphasized in order to collect the necessary data on learning achievements namely, the need to design the instruments appropriately to scientific criteria and cultural specific contexts and to carry out the survey in an objective and competent manner.

The Workshop was another important step towards the goal of the project **to develop national capacities in monitoring basic education goals and to set up, train and give appropriate support to national monitoring teams**, who will in turn train others, as shown in Table 3.

Methodological Framework

The "think-tank" approach and capacity-building mechanisms built into the different stages of the project clearly overcome important challenges of conventional international and comparative educational assessment studies. The foregoing discussion indicates how the Monitoring Project addressed these challenges. In this section, an attempt is made to summarize the processes and the results obtained.

State of the Art Reviews and Studies

As there was no need to re-invent the wheel, considerable use was made of the existing literature in the field of educational assessment using survey methodology. The State of the Art Reviews and Studies method was used to fertilize the knowledge-base of the participating countries on learning assessment studies in order to facilitate the design and application of an appropriate system for monitoring learning achievement tuned to their national contexts, needs and priorities. In order to enhance capacity-building in this field through dissemination of decades of experiences -- strengths and weaknesses -- in the field of educational assessment, this method was applied by the central project team at UNESCO to develop several working documents and studies, training modules and methodological guides. The results were presented, discussed and disseminated at the International Workshop on Survey Methodology.

The Conventional Approach

Although of secondary importance, the Monitoring Project has also been mandated to fulfil an important lacuna in the arena of international and comparative education. It aims at highlighting some comparable cross-national educational quality performance indicators for the clientele of both national and international policy-makers and practitioners. In the field of educational assessment, performance quality indicators, viewed from the standpoint of school/student learning outcomes, have a history and a practice of their own, which in turn, have serious conceptual, methodological and empirical implications. A small community of scholars and pioneering academic and institutional associations such as the International Association for the Evaluation of Academic Achievement (I.E.A) has for over more than half a century successfully improved some of the fundamental conceptual, methodological and analytical problems in comparative educational assessment studies. Hundreds of books, academic articles, scientific journals, state of the art reviews and studies etc. have been published but still the most important back-to-basic issues have never been adequately addressed for the majority of the world's systems of education -- those in the southern hemisphere, educational systems of the developing nations. (see for example, Kellaghan, 1982; Keeves, 1988; Husèn, 1989; Chinapah, 1992, Prospects, Vol. XXII, Nos. 83 & 84,

1992; Izard, 1993; Goldstein, 1993, and UNESCO World Education Report, 1993). Altogether, these efforts have not significantly improved the total mastery of basic learning competencies and the teaching-learning processes. Alarming evidence in both affluent and developing nations indicate that despite increasing investment in education as a whole, a significant proportion of school-going children still cannot master simple literacy, numeracy and life-skills after four years of exposure to formal basic education.

The "Olympic Games" mentality in educational assessment not only eliminated the R & D capacities and potentialities but has also left them completely untapped for genuine international and comparative educational purposes (see for example, Chinapah and Miron, 1990). For the Monitoring Project, the complexity of such a mandate can only be genuinely and manageably handled through serious advocacy, capacity-building and networking, mobilizing political, human, and financial resources.

The Monitoring Project Approach

The World Conference on Educational-For-All (WCEFA), Jomtien, 1990; the establishment of a UNESCO-UNICEF Joint Committee on Education (1991); and the setting up of a Joint UNESCO-UNICEF Monitoring EFA Goals Project: Focussing on Learning Achievement are but unique and commensurable attempts to give international and comparative education the label it deserves. They share the merit of reducing the process of perpetual dependency while promoting endogenous capacity-building in this field. Altogether, these efforts point at the need for a Basic Learning Competencies (BLC) approach to monitor the performance of basic educational system worldwide. The recent Bangladesh experience using a rather simplified, inexpensive, rapid and yet sufficiently valid procedure to assess basic learning competencies of children -- the ABC approach -- points in such a direction (BRAC, 1992).

The Monitoring Project has drawn upon the experiences from the ABC approach in order to include the specific contexts, needs and priorities as set by the participating countries. This project, with its emphasis on monitoring and capacity-building, therefore addresses important issues in international and comparative educational assessment studies with a view to

Figure 1: The Conventional Approach and The Monitoring Approach

CONVENTIONAL APPROACH	MONITORING APPROACH
Origin of Problem	Finding the Solution
Evaluation	**Monitoring**
Norm-Referenced	Criterion-Referenced
Cross-National	In-Country
One-Shot, Complex, Time-Consuming	Continuous, Simple & Replicable
Costly	Cost-Effective
Agency & Academic-Oriented	Policy & Learner-Oriented
Research to Publish	Monitoring to Improve
Targeted Selected Readers	Targeted Multiple Beneficiaries
Results/Findings Oriented	Process Oriented
Cross-Countries Priority	Within-Country Priority
International Rankings/Aggregates	National/Subnational/School-Based
Dependency	**Capacity-Building**
International Design/Definitions	Country Design/Definitions
Centre-Periphery Approach	Participatory Approach
Short International Fora	Intensive In-Country Training
International Experts	Core Trainers for a Critical-Mass
North-South-North	North-South-South (TCDC)
International Reporting Primarily	National Reporting Primarily
Short-Term	Sustainable

providing some tangible results. In Figure 1, a synoptic overview of the two approaches is given.

Project Conceptual Framework

The development of a set of measurable and internationally accepted indicators which can be used to monitor progress towards education-for-all is the basis of the Monitoring Project. Such a bold attempt can only be realized after careful discussion and consultation with experts and specialists from the participating countries themselves. The International Workshop was

used to arrive at such indicators. Instead of mapping a set of common core items for the development of tests and questionnaires, the Workshop participants agreed upon sets of common core domains, skills, competencies in literacy, numeracy and life-skills as well as on some key background factors from the home and school environments of learning. This approach allows for greater flexibility and the consideration of country-specific contexts. The same approach was used in the definition and selection of the sample frame and coverage for the project. In addition to having a stratified representative random sample of Grade IV schools and pupils, country-specific targeted groups (e.g. other grades, low-achieving students and schools, marginal groups, etc.) were retained, allowing for flexibility in the sampling design to address every country's needs and priorities.

Validity and Reliability

The application of a common framework agreed on by all participating countries and adjusted to the national contexts helped to ensure validity and reliability in this international project. Educational "standards" must be regarded as fundamentally "relative" (Beeby, 1969). A proposed international study should display sensitivity to the cultural contexts, i.e. language spoken, taught and examined, religion, laws, implements used, values for the education dimension to be assessed (Bradburn/Gilford, 1992). Measurement features lending to cultural bias should be avoided, as in the field of literacy where "scepticism usually arises from the belief that literacy is so firmly entrenched in the culture, that what, and how, and how well a student typically reads is unique to each culture, and different from all others" (Elley, 1992).

The Monitoring Project sought to avoid common problems of **dependency** and encourage a participatory approach by:

(1) ensuring that all issues relating to the overall project design (i.e. target groups, instrument construction, sampling procedures, data collection, analysis and reporting) were initiated, discussed, pre-tested and fine-tuned by a core

group of national experts, under the guidance of the national task force in each country;

(2) recognizing the uniqueness of each country's socio-cultural, linguistic, developmental and educational characteristics, thus facilitating the analysis of country-based data; and

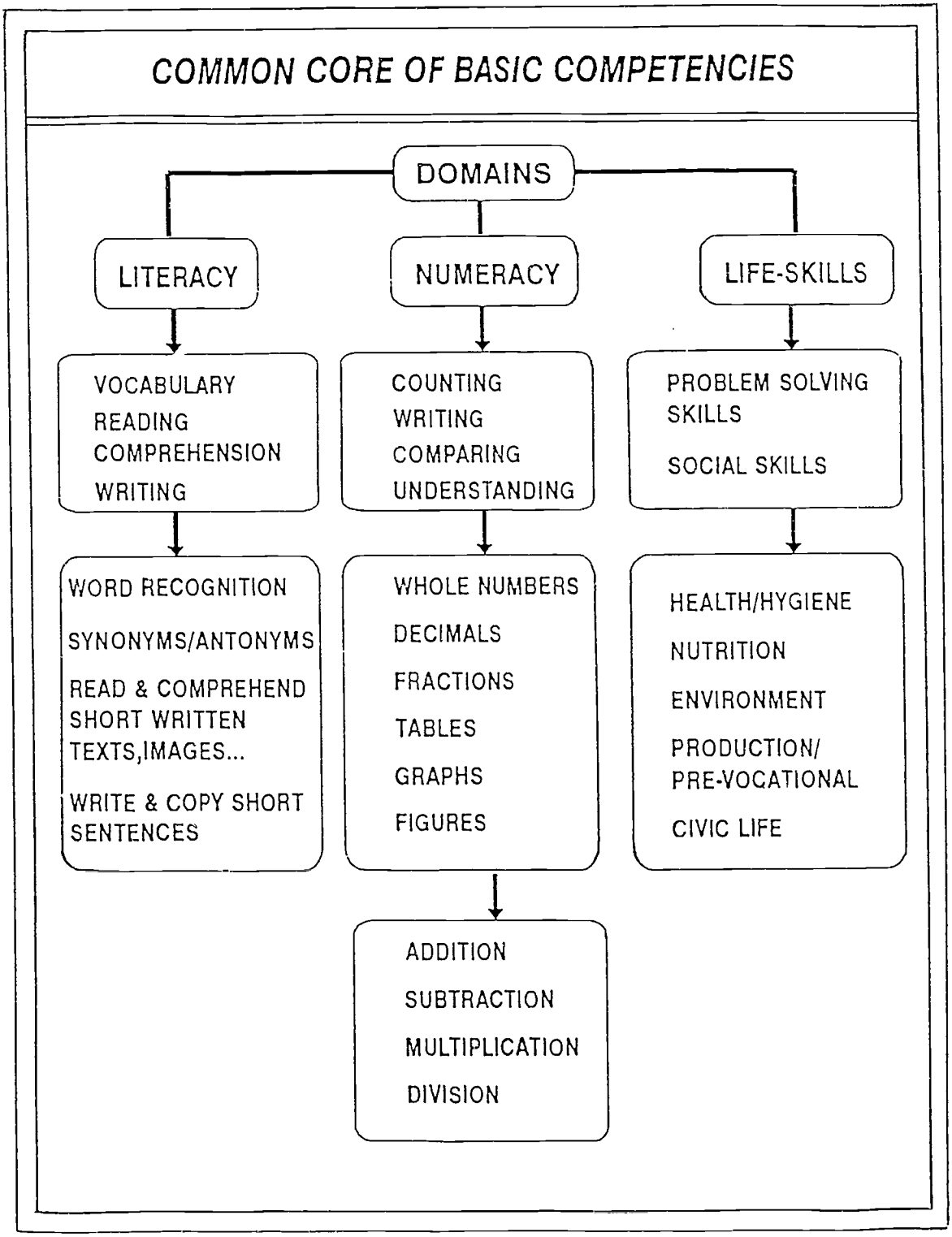
(3) ensuring that the measurement indicators were set, defined and reported by the countries themselves, and that basic learning competencies were defined and standards for literacy, numeracy and life-skills set by the countries themselves.

For purposes of discussion, we will divide the following analysis into: (a) the measurement of the "common core" of basic competencies -- in literacy, numeracy and life-skills -- as measured by *tests*; (b) the use of *questionnaires* to gather reliable information concerning key scholastic and non-scholastic factors; (c) the application of the sampling frame and coverage; and (d) the use of an analytical framework for data analysis and report writing. All five countries' sets of tests and questionnaires are available in original and translated versions (some in English, others in French).

Basic Learning Competencies (BLC)

The Basic Learning Competencies (BLC) approach was developed by the Workshop participants using the experiences from the participating countries in this field and from the inputs of the experts and consultants at the International Workshop. Figure 2 presents the common core of basic competencies agreed upon by the participants for the Monitoring Project, on which the tests in literacy, numeracy and life-skills in each of the participating countries are based (see also Schnüttgen, 1992 for more details).

Figure 2: Basic Learning Competencies - A Conceptual Framework



Before beginning to develop the tests, the country must clearly define the skills it wishes to measure in order to guide the construction of the questions. Only then will the results of the tests have any meaning, in the particular context of that country. Mauritius, for example, defined BLC of each domain in the following way:

Life skills: A nine-year-old should have such basic knowledge, understanding, skills, attitudes and values that will enable him/her to cope with the demands of different life situations and which the educational system would make on him/her.

Literacy (English): A child should be able to (i) read with understanding two types of text, namely an informative text and a fictitious imaginative text; and (ii) convey required information in writing.

Literacy (French): A nine-year-old child should be able to use reading and writing skills to meet the needs of everyday life and to sustain further learning. He/she should therefore be able to read and understand a variety of texts (functional and imaginative) appropriate for his age level and write legible, clearly and correctly, words, phrases and sentences to convey required information.

Numeracy: A nine-year-old child is numerate if he/she is able to: (i) read and write numbers both in words and in figures (up to 4 digits); (ii) perform the four fundamental operations of arithmetic on numbers; (iii) solve simple shopping problems; (iv) read and write time on the 12-hour and the 24-hour clocks and read calendars; (v) compare lengths and convert units of measurement of length, mass and time into related units; and (vi) identify simple geometrical shapes and appreciate their properties.

It is important to note that this is the first time in this kind of international project that the mastery of "life skills" is considered to be as important as literacy or numeracy acquisition. "Life skills" refers to problem-solving, social and "attitudinal" skills -- in areas ranging from

health and nutrition to road safety to civic responsibility -- which, of course, vary from culture to culture and from country to country.

Common Core and Country-Specific BLC Domains

While the five pilot countries were obviously inspired by the prototype questions prepared by the Monitoring Project, in each case they made an effort to develop the questions in accordance with their national context. A meta-analysis of the major commonalities and differences between countries is presented in Table 4. Reference can be made to Appendix I for further details.

Table 4: Meta-Analysis of Test Items in the Five Countries

Questionnaire Items	CHINA*	JORDAN*	MALI*	MAURITIUS	MOROCCO
LITERACY					
No. Common Core Items	10	22	11	7	23
No.Country-Specific Items	10	14	5	6	7
ALL ITEMS	20	36	16	13	30
NUMERACY					
No. Common Core Items	99	39	11	12	10
No.Country-Specific Items	21	11	2	1	5
ALL ITEMS	120	50	13	13	15
LIFE SKILLS					
No. Common Core Items	20	30	18	11	23
No.Country-Specific Items	24	20	2	14	
ALL ITEMS	44	50	20	25	24
GRAND TOTAL					
No. Common Core Items	129	91	40	30	56
No. Country-Specific Items	55	45	9	21	13
ALL ITEMS	184	136	49	51	69

* China (Grades IV and VI); Jordan (Grades IV and VIII); Mali (Grade V and Literacy Classes)

Note: **Common Core Items** are those found in at least 2 of the 5 countries while **Country-Specific Items** are unique country-items

Literacy Domains

First, each country had to carefully define its terms: What is the definition of literacy in that country? What are the related skills that constitute basic literacy? What basic achievement level is considered necessary and sufficient in that country? In general, it was agreed that a pupil should be able to: recognize written words, identify synonyms and antonyms, read and react to a simple factual question about a reading passage, read and comprehend short written extracts, be able to copy two short sentences and react to a simple question in a writing.

For example, in China, the mastery of 2500 characters, the ability to read aloud a text or passage and the ability to handle a dictionary are considered minimum requirements. In Mali, it is considered important that pupils be able to copy a short sentence, or fill in blanks with grammatically correct words.

For our purposes, the analysis of the literacy tests has been broken down into two main groupings: reading/comprehension and writing/written expression, both of which require the acquisition of certain **skills** -- vocabulary, grammar and spelling. It should be noted that Mauritius administered two tests -- one in English (official language) and another in French (the colonial-cultural language).

Reading/Comprehension

All of the countries tested comprehension by asking pupils to read a short text and answer a number of multiple choice or true/false questions about it. China asked pupils to find the sentence that best expressed the theme of the passage. Mauritius asked about information contained on a poster, and Morocco, on a medicine bottle.

Writing/Written Expression

This category comprises three main elements -- writing itself, guided expression and free expression. Morocco and Mali asked pupils to recopy one or more sentences. China and Mali used a dictation exercise to test writing skills as well as spelling.

Mali posed "open" questions on a reading passage which required a whole sentence answer. In a similar exercise, Mauritius gave sentences that needed to be filled in. Jordan asked pupils to give a title to a text or to tell a story by putting a number of sentences in the correct order.

Chinese pupils were asked to tell about something they had recently learned; in Morocco and Mauritius pupils had to write a caption for a picture or cartoon. The English test in Mauritius asked for a letter to Santa Claus.

To test vocabulary, China and Jordan asked for definitions of certain words in context, while Mauritius asked pupils to group words from the same family. Morocco and Mali asked for synonyms and antonyms.

Morocco, Mali and Jordan included questions specifically on grammar -- Mali asked about word gender and agreement of adjectives; Morocco was interested in agreement of singular/plural and the conjugation of verbs. Jordan also had questions on word gender, singular/plural and included questions about the spoken language.

Numeracy Domains

Numeracy is concerned with a pupil's conceptual understanding, procedural knowledge and problem-solving abilities. By conceptual understanding we refer to skills such as recognizing numbers, reading tables or figures and comparing numbers. Procedural knowledge not only refers to mathematical skills that enable a child to add, subtract, multiply and divide whole numbers but also to give meaning to decimals. Problem-solving skills are those which are

relevant in daily life situations (money, measurements such as length and weight, shapes, time). Another factor in numeracy is geometry, which concerns shapes and spatial relationships.

The Monitoring Project's common core of minimum competencies for numeracy calls for a pupil to: know whole numbers, be able to perform simple addition, subtraction, multiplication and division, master simple fractions, decimals and percentages, work with shapes and spatial relationships and be able to solve daily life problems of relevance to numeracy skills.

Tests for the five pilot countries included questions related to understanding whole numbers, the four arithmetic operations, knowledge of decimals and fractions and, in some cases, proportions and percentages. They also asked for the construction of basic geometric forms and the ability to manage various measurements (including telling time, reading a calendar and understanding the scale of a map).

Morocco closely followed the prototype questions suggested by UNESCO, including questions on arithmetic, increasing and decreasing numbers, different units of measurement, and understanding of tables. Morocco included no questions on geometry.

Mauritius asked similar questions, but added several on fractions, the conversion of measurements and included some geometry. One question referred to going shopping and another to reading a calendar.

The test for Jordan was more extensive (Grades IV and VIII together), and included questions about measuring length, doing arithmetic using whole numbers and fractions, and included some equations. Questions on geometry concerned angles, and calculation of the surface of a figure.

Mali had a much shorter test, with questions on arithmetic and even one question on logic. There were also questions on money, telling time and computing weight.

China had the most questions in this section (Grades IV and VI together), adding to the types of questions found on the other tests, several ones on decimals and fractions, and conversion of units of measurement. There were also questions about circles, the volume of solid figures, passage of time and relative age.

Life-skills Domains

Four major themes were covered by the five pilot countries in their life skills tests:

- health (disease, hygiene, nutrition, reproduction)
- everyday life (accidents, safety, home life)
- environment (environment, conservation, civics, general knowledge)
- working-life (crop cultivation and harvest, work and income-generating habits)

Health and Nutrition

All countries included health questions relating to issues such as vaccination, symptoms of common illnesses, first aid, medicines as well as questions about smoking, washing hands, brushing teeth. Jordan was especially interested in diseases transmitted by insects, and Mali on the subject of malaria. Several questions on the Chinese test concerned study habits (i.e. how far away to hold a book from your eyes). Water was a frequent theme, as well as the importance of milk (its importance to one's health as well as how it should be stored) and the importance of well-balanced meals and nutritious foods. China was interested in technical aspects of food preparation (cooking, refrigeration) and Jordan asked about the harmfulness of certain foods and beverages (including tea and coffee), eating properly and whether it was preferable to breast-feed.

Everyday life

A wide range of issues were covered under "accidents", especially day-to-day domestic accidents such as nosebleeds, cutting fingers, snakebites, getting dangerous liquid in the eye. Mauritius asked about reactions to danger, such as what to do if you see a child drowning

thunderstorm, or how to tell the difference between unlabelled bottles.

Each country asked about road safety, and most asked personal safety questions such as how to deal with strangers.

Jordan was the only country to ask about the consequences of large families. Mauritius asked about appropriate clothing for different seasons, and China asked some very practical questions such as what to do if you lose your bicycle or how to address an envelope .

Environment

The most frequent questions about the environment concerned protecting forests and trees (including how to cook using as little wood as possible, preventing forest fires, caring for young trees). Mali asked about water pollution and Mauritius dealt with a number of environmental topics such as the protection of flowers and birds' eggs and the importance of keeping public places clean.

Every country asked who was the head of state, and to name the neighbouring countries. Mali asked about the colours of the national flag and Jordan inquired about the national money and the date of independence.

As far as "civic life" is concerned, all five asked something about social responsibility -- for example, what to do if you find something that doesn't belong to you. Questions on the Chinese and Mauritius tests dealt with relations with other people -- what to do if a neighbour's radio is bothering you, or what about a schoolmate who stutters.

In the "general knowledge" category, questions included the boiling point of water and what kind of book to consult if you can't spell a word.

Working Life

Questions about harvests and cattle appeared on all the tests, as well as which insects can be harmful to crops, or what are the consequences of a dry year. Jordan seemed to be especially concerned by such questions.

In Mauritius, children were tested on skills related to working the land. In China, children were asked about sewing (use of scissors, needles, etc.), woodworking, tree transplantation and electricity. In Mali, children's agricultural skills were examined.

Key Learning Environmental Factors

The overall conceptual framework of the Monitoring Project is built upon the conviction that different testing mechanisms (i.e. teacher-made tests, examinations, and so on) have specific functions. They are not necessarily designed to capture the importance of significant others (people and the environment) within and outside the four walls of the classroom. Differences in learning are often due to contextual, personal, behavioral and attitudinal factors of the significant others on the teaching-learning processes. The Monitoring Project provides a conceptual framework where these factors can be identified and analyzed in view of their importance in order to design corrective measures and to improve the learning outcomes of children at critical moments of their schooling. Table 5 presents a meta-analysis of the different sets of questionnaires with common core and country-specific questions. Reference can be made to Appendix II for more information on these sets of questionnaires. Furthermore, a detailed analysis of the questionnaires designed in each country and the importance of environmental factors on children learning is foreseen in the next phase of reporting.

Table 5: Meta-Analysis of Questionnaires Items in the Five Countries

Questionnaire Types	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
PUPIL					
No. Common Core Items	15	20	11	16	15
No.Country-Specific Items	0	0	1	1	1
CLASS TEACHER					
No. Common Core Items	15	7	11	10	14
No.Country-Specific Items	7	0	1	2	6
SCHOOL					
No. Common Core Items	37	36	23	10	28
No.Country-Specific Items	1	3	0	0	6
PARENT					
No. Common Core Items	13	15	8	26	12
No.Country-Specific Items	0	3	1	6	1
TOTAL					
No. Common Core Items	80	71	52	62	68
No. Country-Specific Items	8	6	3	9	14

Note: **Common Core Items** are those found in at least 2 of the 5 countries while **Country-Specific Items** occur only in a given country.

Personal Characteristics, Home and School Environments

In the Monitoring Project, countries have developed, pre-tested and administered questionnaires to pupils, parents, class teachers and school heads in order to map out the important factors influencing learning achievements. They deal with background variables and other factors present in the home and school environments which influence school achievement results.

The majority of the questions are "closed". This kind of question facilitates the collection of both qualitative and quantitative information. They are generally less complicated than open-ended questions and, as they do not require the use of writing skills, their validity can be more readily guaranteed.

Pupil Questionnaire

Questions can be grouped under the following general headings:

1. personal characteristics
2. school-related characteristics
3. out-of-school activities
4. parental role
5. access to school facilities
6. attitudes and opinions about schooling

All of the first five participating countries included questions concerning homework -- its frequency, purpose and usefulness. The pupil's approach to out-of-school learning activity and use of time were also of interest to all of them. At least one item in each of the five country's questionnaires targeted the availability of parental help with homework. School proximity was another area of general interest and questions dealing with distance from home to school and usual mode of transportation were included in all five questionnaires.

The Chinese and Jordanian instruments included health and nutrition questions. Mali and Morocco included questions on the pupil's state of general health and/or disabilities. The Mali, Mauritius and Morocco questionnaires included items on outside or part-time employment that may interfere with school activities. The pupil's educational and occupational desires and expectations were of concern to Jordan and Mali.

Parent Questionnaire

The parent or household questionnaire is principally designed to gather selected data about the individual pupil's home learning environment. The questions asked involve information that may not necessarily be known to a Grade IV pupil, and, even if known, may be lacking in accuracy due to the age factor. Few, if any, of the participating pupils are familiar with exact details of family education levels, income, mastery of different linguistic skills, for example.

The parent questionnaire covers the following core domains:

1. home/child characteristics
2. family socio-economic status
3. parental occupations
4. home linguistic and literacy background
5. home educational environment
6. family commitment to educational activities

It should be noted that some countries chose not to produce a separate parent questionnaire. China gathered the necessary data from the student and teacher questionnaires. In Morocco, the pupil questionnaire was completed by an adult -- neither his exact title nor relationship to the pupil was specified.

All five participating countries included questions relating to the family -- number of family members, number of people living at home, the person responsible for the child. Morocco included a question on the position of the child in the nuclear family. Both Jordan and Morocco were interested in whether the pupil lived with his/her parents. Mali, Morocco and Jordan included questions on parental marital status.

Questions on family socio-economic status centred on home possessions and amenities (such as refrigerator, television, running water). Other questions related to house size and ownership.

All five countries asked questions concerning the father's or tutor's occupation. Some countries also inquired about the mother's occupation except those countries where women are traditionally less academic and occupation-oriented. Mauritius asked if the parent's work were permanent or temporary while Jordan included a question on the practice of student income supplementing parental occupational income. All countries included questions on the language spoken at home. Mauritius was the only country to ask parents to state their income level.

"Home educational environment" is an extremely broad subject, and may be approached in a number of ways. Even though Mali and, to some extent, Morocco did not address the topic directly, it is possible to empirically reconstitute the home educational environment from answers contained in some of the other questionnaires. For example, all countries except Mali included questions pertaining to parental education. It is however possible to infer parental education level from their profession (although it must be noted that not all well-educated individuals hold jobs that reflect their professional training level). The Chinese included questions on home reading resources (i.e. number of books available at home, newspaper reading habits).

Questions on parental participation (membership in Parent-Teacher Association, meeting pupil's teacher) were included in the Mauritius, Jordanian and Chinese questionnaires, but did not appear on Morocco's or Mali's, as these last two countries traditionally have less experience with such school organizations. Other questions were aimed at evaluating child/parent interaction, and Jordan asked if it was the mother, father or another sibling who usually prov ded help. Jordan inquired about parental acceptability of discipline and good conduct and whether or not education was a necessity.

School Questionnaire

Generally, the school questionnaire is considerably longer than the other questionnaires, due to the magnitude and the precision of the information to be gathered. Its purpose is first and foremost descriptive, and its primary objective is to globally describe the school infrastructure and environment.

The main sections covered in the school questionnaire can be summarized in the following general categories:

1. personal and professional characteristics of school personnel
2. school descriptions
3. teacher descriptions
4. pupil-teacher turnover
5. school facilities and services
6. head teacher job descriptions and opinions
7. miscellaneous areas

All countries except Mauritius included questions regarding the personal characteristics of the head teacher. They were also interested in his/her professional qualifications and experience, including such areas as the highest educational level achieved, teacher training and specific training for the responsibilities of being a head teacher. Questions regarding the length and type of professional experience and service were also included in this section.

Physical descriptions of the school interested most countries, in particular, questions about the size and type of school, average class size, class composition and whether the school was part of a school group.

Morocco and Mali were interested in the school location (rural/urban). China and Mali wanted to know the age of the school building and the materials used in its construction, as well as information regarding the ground area covered by the institution.

Most of the countries inquired about the teaching staff -- number of teachers, number of male/female teachers in particular, and details on teacher age distribution.

The pupil transfer and dropout rate interested Jordan, Mauritius and Mali. These same countries asked about the effects of teacher mobility on student learning.

The largest group of questions revolved around details of school access, and the availability of facilities, amenities and services. All countries included questions on some or all of the

following: the distance from home to school, the availability of activity and staff rooms, teaching aids, playground space, access to electricity, hygienic facilities, a lunch room, a library and the distance from other educational institutions. Morocco asked about live-in housing conditions for teachers and Jordan inquired about the state of the roads leading to the school. China and Jordan were interested in knowing whether a speaker system was available in the school and/or on the surrounding grounds. Regarding school services, questions about library book loans, lunchroom facilities and medical aid were asked most often. Only Morocco was interested in the availability of custodial, administrative, secretarial and transport services.

A series of questions was directed to the head teacher regarding his work load and details about his time schedule. Only China and Jordan asked about the head teacher's teaching duties. The majority of the information gathered concerned extra-scholastic or para-professional work. Most of the countries asked about how much time was spent on administrative duties, meetings outside school and teacher supervision or help. Morocco was interested in how much time was spent meeting parents, and was the only country to inquire about head teachers' continued educational patterns, availability and practices. The head teacher's opinion on the school infrastructure as well as on teacher training and hiring methods was requested by China and Jordan. Jordan also asked his/her opinion on absenteeism and school equipment.

The miscellaneous category touched on financial considerations, school inspections and textbook publication. A number of the countries asked questions concerning school budgets, salaries, fees and sources of school revenue (state, private institutions, etc.). The frequency and purpose of school inspection visits retained the attention of both China and Jordan, whereas China alone inquired about the publishers and editors of school manuals.

Class Teacher Questionnaire

At the school level, data was collected by using two separate questionnaires: 1) the school questionnaire and 2) the class teacher questionnaire. The latter is constructed to obtain

general information about the classroom environment and was completed by the Grade teacher in charge of the class to which the literacy, numeracy and life skill tests were administered. In countries where there are more than one class teachers, all teachers concerned filled the class teacher questionnaire (e.g. China). In Jordan, the class teacher instrument was as comprehensive as the school questionnaire and included several questions involving content areas, pedagogy and the like. As alluded to earlier, there may tend to be a slight overlapping in parental and pupil questionnaire data due to the nature of the information to be gathered. In much the same manner, the school and class teacher questionnaires are complementary aspects of the school learning environment.

The class teacher questionnaire can be divided into six basic areas:

1. personal characteristics
2. socio-economic profile
3. professional qualifications and experience
4. class characteristics
5. teaching practices and work load
6. opinions

Sociological data on the sex and age of the class teacher were sought by most of the countries. In addition, Morocco investigated the teacher's civil status. China pursued the class teacher's socio-economic profile further by asking questions about personal possessions and amenities and the availability of reading sources. China, Morocco, Jordan and Mali asked questions about salaries and remuneration practices, such as: Is the class teacher paid by the State or the community? Is he/she paid in cash or kind (goods and services)?, since in many developing countries, like Mali, remuneration is rarely pecuniary. China, Morocco and Mauritius asked about school/home proximity while China included a question on the mode of transport used and the time spent in commuting to work.

Questions on professional qualifications gathered the widest consensus. All five countries included questions on diplomas, educational levels, teacher training and in-service training acquired by the class teacher. All but Jordan asked about professional teaching experience.

Morocco asked about the number of years the teacher had taught in his present school, alluding to the subject of teacher mobility covered more fully in the school questionnaire.

Class description characteristics were of general interest. Specific items addressed were: the size/number of classes taught, class structure (single class, double class, complete class structure in school). Several of the countries asked about class composition and the number of annual student drop-outs. Morocco sought additional information on the number of repeating students and regular class attendance.

In much the same manner as the head teacher was asked about his/her work load, questions about the number of classes, subjects, teaching hours and extracurricular school activities were directed to the class teacher.

Morocco had a particular interest in aspects of school organization such as class inspections, director's visits, and internal teacher meetings. Class practices, teaching methods and learning aids were asked about by Mauritius. Mali asked if discipline or autonomy were the goal of adequate teaching practices.

Finally, all countries except Mali asked the class teacher to state his opinion on classroom conditions, availability and use of teaching aids and difficulties encountered as a result of teacher transfers. China also sought his/her opinion on class infrastructure (proper ventilation and natural light, sufficient seating space) and the quality and relevance of textbooks. Mauritius included a question involving the class teacher's opinion on school class practices and methods.

Sampling Procedures

The selection of representative samples of schools and pupils depends on a number of factors, based on the **feasibility** of carrying out the project activities -- including transportation, personnel and financial considerations. During the International Workshop at UNESCO,

Headquarters in February 1993, sampling techniques were discussed on the basis of training modules and methodological guides prepared by the central project team at UNESCO.

Each participating country used these modules in setting the sampling frame for the project in order to accommodate the country's specific needs and priorities for the Monitoring Project. During the Workshop certain considerations of country-specific needs already surfaced. Typical examples include the targeted population -- not only Grade IV but other grades (Morocco and Jordan); low achieving schools (Mauritius); nonformal literacy groups and *médersas* (Mali); and gender and regional disparities (Morocco) and so on. More details about the sampling procedures and execution (i.e., desired, defined and executed samples by strata and in terms of schools and pupils) will be provided by the national teams for the international progress report. It should be noted that the central team at UNESCO has also developed a sampling software (SPSS-PC) on the basis of the experiences from the first five pilot countries. This software will be disseminated free of charge to other countries participating in the Monitoring Project.

The sampled population of the Monitoring Project in the first five pilot countries is given in Table 6. As mentioned above, there are common stratification procedures (e.g. by regional characteristics and levels of development and by school types) as well as specific sampled groups (e.g. Grade VI and Grade VIII pupils, youth and adults in nonformal centres, etc.). Despite country-specific target populations for the project, the attempt made to focus on Grade IV is based on the assumption that the project covers mainly children between the ages of 9 and 12.

These examples of differences in sampling frames show how difficult cross-country comparisons can be -- not only because of the number of schools/families/pupils covered but also for the justification -- and country context -- in each case. Factors such as country size, family structure, the role of women (mothers) in a society all influenced the selection of samples.

Table 6: Sample Population of the Monitoring Project in the First Five Pilot Countries

Target Population	No. Pupils	Parents/ Households	Class Teachers	Schools/ Head teachers
CHINA 8 Nationally Representative Provinces All School Types (6)	Grade 4 24,582 Grade 6 24,443	--	2228 2228	2228
JORDAN 23 Nationally Representative Directorates All School Types (4)	Grade 4 4908 Grades 8 3585	5163	568	244
MALI 4 Nationally Representative Provinces All School Types (3) and Representative Sample of Literacy Centres	Grade 5 3800 Literacy Group 1000	--	145 Literacy Educators 25	145 Heads of Literacy Centres 25
MAURITIUS All 9 Districts All School Types (3)	1600 (Grade 4)	1600	52	52
MOROCCO 10 Nationally Representative Provinces All Public and Private School Types (14)	Grade 4 3077	--	165	165

Data collection and analysis

An efficient data collection process begins with the careful design of the tests and questionnaires. It ensures that only one item of information is being asked in each question, making sure that the questions are "closed" and that the instruments have been pilot tested more than once.

Training the administrators as well as the people who will be scoring and recording the data is another important factor.

Workshops in using the SPSS software, specially designed by UNESCO experts for the Monitoring Project, were conducted in each country. Help was provided in the use of the software, cleaning the data and analyzing it for usable -- and comparable -- results. Report-writing was also considered important. The results are presented in the last section of this paper.

III. SELECTED FINDINGS

Mastering Basic Learning Competencies

The World Declaration on Education-For-All and the Framework For Action to Meet Basic Learning Needs have set the targets for the 1990s so that countries may design appropriate policies and mechanisms for mastering basic learning competencies according to their situational contexts.

> *Improvement in learning achievement such that an agreed percentage of an appropriate age cohort (e.g., 80 percent of 14 year-olds) attains or surpasses a defined level of necessary learning achievement).*
>
> World Conference on Education-For-All
> Jomtien 1990, Final Report: p.53

Within the framework of the Monitoring Project, the Basic Learning Competencies (BLC) approach has been developed to ensure that criterion-referenced testing takes place in order to monitor the progress of school-age going children at critical moments of their education career and to derive appropriate corrective measures to enhance the quality of their learning outcomes. As mentioned earlier, each national task force defines what constitutes basic learning competencies in the domains of literacy, numeracy and life skills in accordance with each country's situational contexts.

The foregoing sections clearly demonstrate the necessity to treat cautiously nationally designed instruments, their testing, analysis and reporting for an international audience of policy-makers and practitioners in the field . As shown in Figure 1 (page 17) the comparative advantage of this project over conventional comparative studies of learning assessment relies upon the critical analysis of the weaknesses and strengths of these studies. Comparison among countries can be only comparable when country-specific contexts are fully respected. The common frameworks (conceptual, methodological and conceptual) provided at every stage of the project implementation through intensive capacity-building mechanisms permit each participating country to perform in accordance with its own situational contexts, needs and priorities.

In the process of preparing and finalizing their national country-reports, an analytical framework was prepared by the central project team at UNESCO to facilitate all five countries in choosing common-core Basic Learning Competencies (BLC) performance indicators. A similar approach will be used in the report based on results from more advanced analysis of factors affecting basic learning competencies.

An analysis of the results of this project can be approached from several perspectives. On one hand, it is interesting to note the **absolute scores** in basic learning skills in terms of gender, location and type of schools and age and retention factors, and to review how each country carried out its data analyses.

On another level, we can try to report the scores and percentages of the different countries, and begin to form conclusions about identifiable trends. Of course, we must be careful to compare the comparable -- which is not always easy, given the highly country-specific nature of the project. For example, China gives results for both IVth and VIth grades while Jordan for both IVth and VIIIth Grades. China, especially interested in regional disparities, considers city, town and rural schools, both government and non-government run. To facilitate this process, a general analytical framework (see Figure 3) was provided, but even then, reporting techniques differed greatly from country to country.

Finally, we can attempt to **interpret** the findings, to understand why, for example, girls seem to do better than boys in higher grades, or why urban schools generally -- but not always -- score higher than rural ones, in order to recognize their implications for policy-making.

But we must be extremely cautious with the "results" found in each country. High test scores alone are not necessarily indications of better teaching quality. The validity of the test in this type of project must be assured and adequately monitored, considering between-country variations.

Moreover, the "best" schools are not necessarily those with the highest achievement scores; they are those which take students from -- rural or urban -- homes with low predicted achievement scores, and through the **quality** of their teaching and school programme, raise their achievement scores well beyond what was predicted.

Figure 3: Analytical Framework for National Reporting of Basic Learning Competencies

LEVEL OF ANALYSIS	TYPE OF ANALYSIS	LITERACY + NUMERACY + LIFE SKILLS										
NATIONAL REGIONAL OR PROVINCIAL DISTRICT SCHOOL RURAL/URBAN SCHOOL TYPE GENDER AGE SES	Mean score (All Basic Competencies											
	Mean score (Each Basic Competency)	LITERACY				NUMERACY				LIFE SKILLS		
	Mean score (Each Domain)	LITERACY (DOMAINS)				NUMERACY (DOMAINS)				LIFE SKILLS (DOMAINS)		
		1	2	3	4	1	2	3	4	1	2	3

DOMAINS AND REPORTING BY CATEGORIES

COMPETENCIES	LITERACY	NUMERACY	LIFE SKILLS
DOMAINS	1. Reading 2. Writing 3. Vocabulary 4. Comprehension	1. Counting 2. Geometry 3. Measures (space, area) 4. Problem-solving notions	1. Health/ Nutrition 2. Daily Life 3. Environment
CATEGORIES	1. Top 10 per cent *and/or* 2. Bottom 10 per cent	1.% Above basic level of competency 2.% Basic level of competency 3.% Below basic level of competency	

The National Assessment of Basic Learning Competencies

Country BLC Profiles

The country BLC profiles are presented in accordance to the sample population of the four countries of the Monitoring Project (China, Jordan, Mauritius and Morocco) for which we have received results. Reference should be made to Table 4 which presents the sample populations of these countries. Although an appropriate methodological strategy was used to guarantee comparability, validity and reliability of the tests, some work is still needed. The International Progress Report will cover the technicality and measurement properties of this project. At this stage, the presentation of these results is of a more descriptive than inferential nature.

Before beginning to analyze the data, each country has decided how it is going to measure BLC. Reference should be made to the earlier sections of this report, where BLC has been presented and examined on the basis of each country's own definition and requirements. Mauritius, for example, clearly indicated how many questions out of the total, in each domain, constituted an adequate level of learning acquisition (see Figure 4).

It should be noted that at this stage of the project, due to the priority given to national reporting, all four countries have been working on their national reports to be presented, discussed and disseminated through various modalities (e.g. national and sub-national workshops, seminars and conferences). In this context, the results in this section have to be treated as preliminary ones in order to provide ample room for further analysis of the data (if needed) using the outcomes from the in-country workshops and seminars.

Figure 4: What Constitutes Basic Learning Competencies? An Example
(number of correct items out of total)

LIFE SKILLS	LITERACY (English)	LITERACY (French)	NUMERACY
Awareness of environment (5 out of 8 items)	Reading (14 out of 22 items)	Vocabulary (6 out of 8 items)	Numbers (15 out of 22 items)
Self-preserving skills (4 out of 7 items)	Writing (at least 11 out of 18 items)	Reading (8 out of 14 items)	Measures (5 out of 9 items)
Social skills (3 out of 6 items)		Writing (7 out of 13 items)	Geometry/graphs (1 out of 4 items)
Manipulative skills (1 out of 3 items)			
Problem-solving (2 out of 6 items)			

As mentioned above, the results given to the central team at UNESCO are drawn from each country's national report which is still in the process of fine-tuning. A common denominator has been used to ensure the comparability of the BLC scores. Each country has defined what percentage of correct scores constitutes BLC in the different domains. The results are shown in Table 7. Besides percentage of children above and below BLC, means and standard deviations were given. Jordan and Morocco have also provided the results in deciles allowing a better understanding of the distribution of scores.

Table 7: **Country Profile of Mastering Basic Learning Competencies (BLC) by Domains (Preliminary Results)**

Basic Learning Competencies (BLC by Domains)	CHINA	JORDAN	MAURITIUS	MOROCCO
LITERACY				
Grade IV				
% BLC and Above	89%	82%	83.4% 69.9% (***)	83%
% Below BLC	11%	18%	16.6% 31.1% (***)	17%
Grade VI or Grade VIII*			N.A.	N.A.
% BLC and Above	70%	67%		
% Below BLC	30%	33%		
NUMERACY				
Grade IV				
% BLC and Above	94%	83%	70.3%	80%
% Below BLC	16%	17%	29.7%	20%
Grade VI or Grade VIII*			N.A.	N.A.
% BLC and Above	91.6%	86%		
% Below BLC	8.4%	14%		
LIFE SKILLS				
Grade IV		(**)		
% BLC and Above	72%		81.7%	84%
% Below BLC	28%		18.3%	16%
Grade VI or Grade VIII*		(**)	N.A.	N.A
% BLC and Above	70.3%			
% Below BLC	29.7%			

Note: **N.A.** = Not applicable (*) = Grade VI (China) & Grade VIII (Jordan)
(**) = Awaiting more results
(***) = Literacy results (1) English and (2) French for Mauritius

The results in Table 7 indicate the following trends. The great majority of children in China in Grades IV and VI master the basic learning competencies in all three domains. However, the level of mastery tends to relatively decrease from Grade IV to Grade VIII. In Jordan, with the exception of basic learning competencies in literacy at Grade VIII, more than 80% of the children have mastered what they ought to learn. A great majority of Moroccan children have mastered basic learning competencies in all three domains, although the

performance is relatively lower in the domain of numeracy. In Mauritius, although there is a significant proportion of Grade IV pupils who master the basic learning competencies, still we can observe a marked difference in the two languages, i.e., a much higher percentage for English language (83.4%) as compared to French language (69.9%). The performance in numeracy is also relatively lower than in the other domains.

Within-Country Findings

It has been argued earlier in this report that the move towards "comparing the comparable" should focus more on the within-country analysis than on the cross-country analysis as differences within countries, between and within schools of different types and localities as well across gender, age, socio-cultural and linguistic lines are as marked as between countries. In this section, some selected findings on basic learning competencies' domains between urban and rural schools, between boys and girls and between private and public schools are presented for the four countries. The results are shown in Table 8.

The following trends can be observed:

Urban-Rural Differences

Students in rural schools have traditionally done worse on achievement tests throughout the world for many reasons, including lower parental income and educational levels, poorer facilities, more poorly trained teachers and lower expectations.

Urban school children do better than rural school children in all BLC domains in China although the differences are greater in literacy and numeracy are nonsignificant in the life skills domains. In the higher grades (Grades VI and VIII) the differences between urban and rural school children tend to increase in the literacy and life-skills domains but decrease in the numeracy domains. In Jordan, significant differences are noted between urban and rural achievement in literacy and numeracy for both Grades IV and VIII. Urban children do better than rural children and the differences decrease over time between Grade IV and Grade VIII students. Marked regional differences are observed in all three domains in Morocco where

Table 8: Within-Country Differences by Region, Gender and School Type in Basic Learning Competencies (Preliminary Results)

Basic Learning Competencies (BLC by Domains)	CHINA	JORDAN	MAURITIUS	MOROCCO
LITERACY				
Grade IV			(***)	
Mean Point-Score Differences				
Urban vs Rural	2.43	7.29	(**)	18.36
Girls vs Boys	(**)	6.71	5.1 4.4 (***)	7.24
Private vs Public	- 0.56	20.94	-6.8 -7.4 (***)	19.25
Grade VI or Grade VIII(*)			N.A	N.A.
Mean Point-Score Differences				
Urban vs Rural	3.92	6.67		
Girls vs Boys	(**)	7.31		
Private vs Public	- 0.63	15.73		
NUMERACY				
Grade IV				
Mean Point-Score Differences				
Urban vs Rural	2.94	4.68	(**)	13.63
Girls vs Boys	(**)	1.46	0.9	1.45
Private vs Public	1.15	14.62	-13.0	19.84
Grade VI or Grade VIII(*)			N.A	N.A.
Mean Point-Score Differences				
Urban vs Rural	1.61	2.13		
Girls vs Boys	(**)	0		
Private vs Public	- 0.46	14.48		
LIFE SKILLS				
Grade IV		(**)		
Mean Point-Score Differences				
Urban vs Rural	0.54		(**)	15.36
Girls vs Boys	(**)		2.4	4.62
Private vs Public	0.49		-10.4	13.15
Grade VI or Grade VIII(*)		(**)	N.A	N.A
Mean Point-Score Differences				
Urban vs Rural	0.67			
Girls vs Boys	(**)			
Private vs Public	0.21			

Note: N.A = Not applicable (*) = Grade VI (China) & Grade VIII (Jordan)
(**) = Awaiting more results
(***) = Literacy results (1) English (2) French

urban children do far better than rural children. The urban-rural analysis has not yet been completed for Mauritius.

Gender Differences

In almost every country, the mean test scores were equal or higher for girls than boys. Reasons for these differences are hard to prove -- the genetic versus environment debate has been raging for years. Whatever the reasons, throughout the world, the changing roles of women in society has made the question of success or failure of girls in schools an increasingly important policy issue.

Girls usually significantly outperform boys in languages while female performance in numeracy is slightly higher but nonsignificant. In Jordan, Mauritius and Morocco girls outperform boys in all BLC domains. The gender difference varies from one domain to another, where it is much greater in literacy, somewhat higher in life skills and rather nonsignificant in numeracy. These results clearly confirm those found in several studies in other developing countries. Once girls get into schools and equal access is ensured, they tend to outperform boys at basic education level. However, the longer they stay in the system these differences tend to diminish (Eshiwani, 1983; Chinapah, 1983; Biazen and Junge, 1988; Elley, 1992; Postlethwaite and Wiley, 1992).

Private and Public Schools

Private and public schools differ from country to country along a continuum. In some countries private schools are financed by the State or run by private bodies (e.g. religious authorities) and in others they are subsidized by private enterprises or school fees. Public schools are not always entirely free nor always run by the state. Some are community-based schools, self-help schools and so on. However, at the basic education level in most countries, private schools tend to draw children from families with relatively higher socio-economic levels from urban or semi-urban settings. Private schooling has traditionally produced high achieving students, for much the same reasons as given above for urban

schools. But, research has also indicated that students from wealthier, highly-educated families would do well in school regardless of the institution they attended.

At this stage of our report, detailed data from these school types are not yet analyzed and therefore we can only present some crude performance indicators. Although there are no significant differences between privately-run and publicly-run schools in China, still in the literacy and numeracy domains children from public schools do better than children from private schools. However, the performance in the life skills domains is somewhat higher in private schools. In both Jordan and Morocco there are marked differences in all three domains and grades -- private school children outperform public school children -- while the opposite trend is found in all domains in Mauritius, where public school children outperform private (aided) school children.

Altogether, the performance indicators chosen here to ascertain to what degree, in these four countries, the targets set at Jomtien are being met in the field of basic learning competencies are just a first step for further in-depth analyses of the information base developed through this joint project, and in particular, for the analyses of key BLC determinants.

Other Findings

Due to the absence at this stage of reporting of a complete set of data from all four countries, we can only add to this progress report some findings on repetition and student age in Jordan and Morocco. Psychologists have demonstrated the effect on self-image of retaining students, and educational research has shown a high correlation between retention and later dropping out of school. A number of delicate -- and controversial -- issues thus arise, among them, is it beneficial to students and cost-effective to society to retain students?

In Jordan, students who had never repeated a grade performed significantly better than students who had repeated at least one grade between Grades I and IV. Age in grade is closely correlated with repetition rates in countries such as Jordan where most children enter formal schooling at the same age. There is strong evidence that older students, particularly

those two or more years older than their classmates, internalize a wide range of negative feelings and are considerably more likely to drop out. In Morocco, the younger pupils (under 10 years old) in Grade IV had higher scores than 10 and 11-year-olds, suggesting that once children are behind they tend to remain behind.

IN CONCLUSION: MEETING THE CHALLENGES

Even before all the results have been received and analyzed, it is clear that the open-ended and flexible Monitoring Project approach -- based closely on a common core of concerns and reinforced by frequent consultations with the central team at UNESCO Headquarters as well as between participating countries and the two agencies (UNESCO/UNICEF) -- has helped to avoid many of the problems encountered in the traditional approach to educational assessment (see Figure 1, page 17).

The World Conference on Education-For-All (WCEFA) provided a global framework for the development of education by the year 2000 and beyond. Monitoring EFA goals is seen as an important WCEFA follow-up mechanism. Although it is imperative to monitor the quantitative expansion of education and the related financial and personal inputs, considerable emphasis should be given to the effective monitoring of learning achievement.

Within the framework of the Monitoring Project, where monitoring EFA goals is approached from the standpoint of student learning achievement, the first five "pioneer" countries have designed their projects, developed indicators, identified sampling populations, pre-tested and administered their tests and questionnaires, and begun to act on the results obtained. But the real "results" of the Project -- national capacity-building, enhanced further by the multiplier effect -- are already evident, in every step of the project, as described in this document.

If the ultimate objective of any follow-up activity to the WCEFA is to improve the quality of education-for-all, then the Monitoring Project's overriding aim of **building national capacities** is a crucial step along the way. Excellent interagency co-operation between UNESCO and UNICEF, together with the TCDC components emphasized at the initial stage of the Project have laid the groundwork for the smooth integration of the next group of countries participating in the Project. Already, we have seen that the successful experiences of China were used to launch the project in Sri Lanka, and the national capacities developed in Jordan were used to train the Omanis in the design and implementation of their project.

But most important of all, the foundations have been established for other countries -- way beyond the scope of the Monitoring Project itself -- to set up similar monitoring activities, based on the experiences of these first countries. A booklet containing the findings, methodology, and instruments of the project, as outlined in this document, along with insights into the lessons learned by each of the five pilot countries during the first phase, is presently being prepared by the monitoring project team, and is expected to be ready in June 1994. UNESCO and UNICEF's direct roles in "**monitoring the Monitoring Project**" during this first phase (1992-1995) set the stage for the mid-decade achievement (since Jomtien, 1990) through quality improvement in basic education from the standpoint of an appropriate monitoring system for learning achievement. Through the emphasis on capacity-building, promoting TCDC, and encouraging a country-specific, feasible and sustainable approach to monitoring, the groundwork laid during the three-year Project will have been a major contribution towards meeting the challenges of the future.

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Appendix I:1

BASIC LEARNING COMPETENCIES

LITERACY

	COUNTRIES						
DOMAINS	CHINA		JORDAN	MALI	MAURITIUS		MOROCCO
Reading/Comprehension	1	2			3	4	
- Reading passage with multiple choice questions	+	+	-	+	+	-	+
- Medicine bottle with multiple-choice questions	-	-	-	-	-	-	+
- Poster asking for information in answer to multiple choice questions	-	-	-	-	+	+	-
- Reading passage with true/false questions	-	-	-	-	-	+	-
- Finding the sentence that best expresses the main idea of a reading passage	+	-	-	-	-	-	-
- Rearranging elements from a reading passage	-	-	+	-	-	-	-
Writing/Written expression							
Writing							
- Copying a sentence	-	-	-	+	-	-	+
- Dictation	+	+	-	+	-	-	-
Guided written expression							
- Answering in sentence-form questions on a reading passage	-	-	-	+	-	-	-
- Expressing the main idea of a reading passage in sentence-form	+	+	-	-	-	-	-
- Completing sentences using information in a reading passage	-	-	-	-	+	-	-
- Completing sentences using information provided	-	-	-	-	+	-	-
- Answering questions about oneself	-	-	+	-	+	+	-
- Providing a title for a reading passage	-	-	+	-	-	-	-
- Writing a short passage using several given sentences	-	-	+	-	-	-	-
Free written expression							
- Telling what one has learned recently	+	-	-	-	-	-	-
- Writing an advertisement	-	+	-	-	-	-	-
- Writing a caption for a picture or cartoon	-	-	-	-	+	-	+
- Writing something about a picture	-	+	-	-	-	-	-
- Writing a letter to Santa Claus	-	-	-	-	-	+	-

Key: + = Included
- = Not included in the specific country questionnaire.

1 = Grade 4
2 = Grade 6
3 = French
4 = English

Appendix I:1 (continued)

BASIC LEARNING COMPETENCIES

LITERACY (continued)

DOMAINS (SKILLS)	COUNTRIES						
	CHINA		JORDAN	MALI	MAURITIUS		MOROCCO
	1	2			3	4	
Vocabulary							
- Completing a reading passage using given words	-	-	+	+	-	-	-
- Finding synonyms/antonyms of given words	-	-	+	+	-	-	+
- Determining the meaning of words according to their context	+	+	-	-	-	-	-
- Completing families of words	-	-	-	-	+	-	-
- Identifying a word from its definition	-	-	-	-	+	-	+
- Defining a word	-	-	+	-	-	-	-
- Linking groups of words according to their meaning	-	-	-	-	+	-	-
Grammar							
- Agreement of word gender	-	-	+	+	-	-	-
- Putting words from singular to plural and vice versa	-	-	+	-	-	-	+
- Agreement of adjectives and nouns	-	-	-	+	-	-	-
- Identifying parts of grammar in a sentence	-	-	+	-	-	-	+
- Conjugation of verbs	-	-	+	+	-	-	+
- Identifying pronouns from given verbs	-	-	+	-	-	-	+
- Identifying irregular verbs	-	-	-	-	-	-	+
- Identifying present participle	-	-	-	-	-	-	+
- Understanding declensions	-	-	+	-	-	-	-
- Understanding conjunctions in subordinate clauses	-	-	+	-	-	-	-
- Understanding co-ordinating pronouns	-	-	+	-	-	-	-
- Understanding negatives	-	-	+	-	-	-	-
Syntax							
- Building a sentence from given words	-	-	+	+	-	-	-
- Punctuation	-	-	+	-	-	-	-
Spelling							
- Dictation	+	+	+	+	-	-	-
Pronunciation							
- Understanding rules specific to oral languages	+	+	+	-	-	-	-

Key: + = Included
- = Not-included in the specific country questionnaire.

1 = Grade 4
2 = Grade 6
3 = French
4 = English

Appendix I:2

BASIC LEARNING COMPETENCIES

NUMERACY

DOMAINS	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Mathematical language					
- Rearranging numbers in ascending/descending order	+	+	-	-	+
- Writing numbers (in figures) in words	+	-	-	+	-
- Identifying units of a number	+	+	+	-	-
- Simplifying a decimal	+	-	-	-	-
- Identifying even/odd numbers	-	+	-	-	-
- Reading aloud long numbers	+	+	-	-	-
- Forming the smallest number possible from four given figures	-	+	-	-	-
Arithmetic					
- Performing simple arithmetic (+,-,x,:)	+	+	+	+	+
- Performing arithmetic from information contained in a table	-	-	-	+	+
- Performing arithmetic using fractions	+	+	-	+	-
- Equations	+	+	-	-	-
- Factoring	+	+	-	-	-
- Multiplying a number by 10,100,...	+	+	-	-	-
- Common denominators	-	+	-	-	-
- Changing from fractions to decimals	+	+	-	-	-
- Logic	+	+	+	-	-
Measurements					
- Reading weight on a scale	-	-	+	-	-
- Reading the time from a clock	+	-	+	+	-
- Reading and estimating length	-	+	-	-	-
- Converting units of length	-	+	+	+	+
- Converting units of weight	+	-	-	+	-
- Converting units of volume	-	-	-	-	+
- Converting units of time	-	-	+	-	-
- Measurement of surface	+	-	-	-	-
- Understanding scale on a map	+	-	-	-	-
Geometry					
- Understanding of different geometric figures	+	-	-	-	-
- Understanding of methods of constructing figures (parallel, perpendicular)	+	+	-	-	-
- Understanding and calculating angles	+	+	+	-	-
- Understanding symmetrical axes	-	-	-	+	-
- Calculating the perimeter of a figure	+	-	-	-	-
- Calculating the surface of a figure	+	+	-	-	-
- Calculating the volume of a solid figure	+	-	-	-	-
- Understanding the characteristics of a circle	+	-	-	-	-

Key: + = Included
- = Not-included in the specific country questionnaire.

Appendix I:2 (continued)

BASIC LEARNING COMPETENCIES

NUMERACY (continued)

	COUNTRIES				
DOMAINS	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Problem-solving					
- Understanding and calculating from a weather chart	+	-	-	-	+
- Understanding a calendar	+	-	-	+	-
- Calculating correct change from a shopping trip	+	-	+	+	-
- Calculating amounts using examples from real life (food, construction materials, etc.)	+	+	+	-	-
- Calculating medicine dosage	-	-	-	-	+
- Calculating time in relation to speed	+	-	-	-	-
- Calculating the time spent doing something	+	-	-	-	-
- Calculating distance travelled	+	-	-	-	-
- Calculating average size of a group of children	+	-	-	-	-
- Calculating the number of participants in a contest/race	+	-	-	-	-
- Calculating the father's age from the child's age	+	-	-	-	-
- Calculating opening hours of a store	+	-	-	-	-
- Calculating the number of pages read in a book	-	-	-	-	+
- Calculating proportions in relation to percentages	+	-	-	-	-

Key: + = Included
- = Not-included in the specific country questionnaire.

Appendix I:3

BASIC LEARNING COMPETENCIES

LIFE SKILLS

HEALTH

	COUNTRIES				
CATEGORIES	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Diseases/Hygiene					
- Vaccinating children against childhood diseases	-	+	-	-	+
- Features and symptoms of these diseases	+	+	+	+	+
- First measures to take to cure these diseases	+	+	+	-	+
- Insects that transmit disease	-	+	+	-	-
- Supplying medicines	+	+	-	-	-
- Observing correct dosage	-	+	+	-	+
- Harmful effects of smoking	-	+	-	+	+
- Washing hands before every meal	+	+	+	-	+
- Brushing teeth regularly	+	+	-	+	-
- Walking slowly after running	+	-	-	+	-
- How far away from one's eyes to hold a book when reading	+	-	-	-	-
Nutrition					
- Importance of water and its sterilization	-	+	+	-	+
- Importance of milk and its storage	-	+	+	-	+
- Importance of breakfast	-	-	-	+	+
- Importance of certain foods (meat, fish, eggs)	+	-	-	-	+
- Washing fruit before eating them	+	+	-	-	+
- Harmful effects of coffee and tea	-	+	-	-	-
- Breastfeeding	-	+	-	-	-
Fertility					
- Consequences of large families	-	+	-	-	-

Key: + = Included
- = Not-included in the specific country questionnaire.

Appendix I:3 (continued)

LIFE SKILLS (continued)

THE ENVIRONMENT

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Accidents/Personal safety					
- Bloody nose	-	+	+	-	+
- Cut on finger	+	-	+	-	+
- Snake bite	-	+	+	-	+
- Harmful liquid in eye	-	+	+	-	+
- Water safety	-	-	-	+	-
- Electrical accidents	+	-	-	+	-
- Reactions to a rain storm	+	+	-	+	-
- Reaction to an earthquake	+	+	-	-	-
- Be careful/don't follow a stranger	+	-	-	+	+
- Road sign observance/obedience	+	+	-	+	-
In the Home					
- Key concepts (in the kitchen, housework, home handy-man)	+	-	-	+	-

DAILY LIFE

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Working Life					
- Protect/increase agricultural production	+	-	+	-	+
- Pre-vocational cattle care	-	+	-	-	-
Protecting the natural environment					
- Protecting forested land	+	+	+	-	-
- Protecting rivers	+	-	-	-	-
- Protecting equipment supplies	-	-	-	+	-
Social Life					
- Reactions to finding a valuable item	-	+	+	-	+
- How to behave with other people	+	-	-	+	-
Spatial orientation					
- Using a map	+	+	-	+	+
- Using the sun for orientation	+	+	-	-	-
Own country knowledge					
- Head of state	-	+	+	-	+
- Neighbouring countries	-	+	+	-	+
- National flag	-	+	+	-	-
- Other questions relating to geography and political life in the country	-	+	-	-	-
General knowledge					
- Diverse questions on general culture	-	+	-	-	-

Key: + = Included
- = Not-included in the specific country questionnaire.

Appendix II:1

PUPIL QUESTIONNAIRE

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Personal characteristics					
-- Age	+	+	+	+	+
-- Sex	+	+	+	+	+
Scholastic related characteristics					
-- Number of classes repeated	-	-	+	-	+
Out of school learning activities					
-- Homework	+	+	-	+	-
-- Private tuition	-	+	+	+	+
-- Extra reading	-	+	-	+	-
-- Radio/watching TV	-	+	-	+	-
-- Work outside the home	-	+	+	+	+
Parental contribution to education					
-- Interest	+	+	-	+	+
-- Encouragement	-	+	-	+	+
-- Help	+	+	-	+	+
Access to school facilities					
-- Distance from home to school	+	+	+	-	+
-- Mode of transport used	+	+	-	+	-
-- Proximity of educational facilities	+	+	-	-	+
Attitudes and opinions about schooling					
-- Like going to school	-	+	-	+	-
-- School materials, books	+	-	+	+	+
-- Opinion about teacher/methods	-	+	-	+	-
-- Absenteeism	+	+	+	-	+
Pre-school education classes					
-- Availability/use	+	+	+	-	+
Health					
-- State of general health	-	-	-	-	+
-- Handicaps, disabilities	-	-	+	-	-
Nutrition					
-- Regular meals	+	-	+	-	+
-- Breakfast before school	+	+	-	-	-
Access to school needs					
-- Availability of personal materials	+	-	-	+	+
-- Private tuition	-	+	+	+	+
-- Meals	+	-	-	-	+
-- School costs	-	+	-	-	+
Language					
-- Language used at school	-	-	-	+	-

Key: + = Included
- = Not-included in the specific country questionnaire.

Appendix II:2

PARENT QUESTIONNAIRE

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Home/child characteristics					
-- Number of brothers/sisters in family	+	+	+	+	+
-- Number of people living at home	+	+	-	-	-
-- Position of child in the family	-	-	-	-	+
-- Pupil's responsible party	-	+	-	+	+
-- Parents living with pupils	-	+	+	-	+
-- Parental civil status	-	-	-	+	-
-- Polygamous father	-	-	+	-	+
Family socio-economic status					
-- Home amenities	+	-	-	+	+
-- Home possessions	+	-	-	+	+
-- House size/ownership	-	-	-	+	-
Parental occupations					
-- Father's occupation	+	+	+	+	+
-- Mother's occupation	+	+	+	+	+
-- Other childrens' occupations	-	-	-	+	-
-- Family income level		-	-	+	-
-- Pupil supplements family income	-	-	+	-	-
-- Work temporary/permanent	-	-	-	+	-
Home linguistic and literacy background					
-- Language spoken at home	+	-	-	+	+
-- Frequency/use of other languages	-	-	+	+	-
-- Degree of proficiency in each language	-	-	+	+	-
Home educational environment					
-- Father's educational level	+	+	-	+	+
-- Mother's educational level	+	+	-	+	+
-- Other childrens' educational level	-	-	+	+	-
-- Home educational possessions/availability	+	-	-	+	-
-- Home reading resources	+	-	-	+	-
Family commitment to educational activities					
-- Parent/teacher association	+	+	-	+	+
-- Family/teacher meetings	-	+	-	+	-
-- Family interest/participation	-	+	-	+	-
-- Content of meetings with teacher	-	+	-	+	-
Child/Parent educational interaction					
-- Help/encouragement with homework	+	+	+	+	-
-- Who helps child with homework	-	+	-	-	-
Family opinions about schooling					
-- Adequate discipline	-	+	-	-	-
-- Feel school is important	-	+	-	-	-
-- Quality of teaching methods	-	+	-	+	-
Future occupational aspirations					
-- Parent's opinion/desires	-	+	-	+	-
-- Pupil's opinion/desires	-	-	-	+	-

Key: + = Included

- = Not-included in the specific country questionnaire.

Appendix II:3

CLASS TEACHER QUESTIONNAIRE

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Personal Characteristics					
-- Sex	+	-	+	-	+
-- Age	+	-	+	+	+
-- Civil status	-	-	-	-	+
Professional Qualifications					
-- Education/diplomas	+	+	+	+	+
-- Teacher training	+	+	+	+	+
-- In-service training/internship	+	+	+	+	+
Professional experience					
-- Teaching experience	+	-	+	+	+
-- Years in present school	-	-	-	-	+
Class characteristics					
-- Size/number of classes	+	-	+	+	+
-- Class composition: boys/girls	+	-	-	-	+
-- Class organisation in school: single/double classes; complete class structure	+	+	+	-	+
-- Repeating students	-	-	-	-	+
-- Regular attendance	-	-	-	-	+
-- Drop-outs	-	+	-	-	+
Access to school facilities					
-- Distance from school	+	-	-	+	+
-- Mode/time of transport	+	-	-	-	-
Socio-economic profile					
-- Personnel possessions	+	-	-	-	-
-- Personnel amenities	+	-	-	-	-
-- Availability of reading sources	+	-	-	-	-
Remuneration					
-- Source: state/community	+	+	+	-	-
-- Salary	+	-	+	-	+
-- In kind (goods and services)	-	-	+	-	-
Class teacher work load					
-- Classes/subjects/hours	+	-	-	+	+
-- Outside activities	+	-	-	+	-
School/class practices					
-- Class inspection/director's visit	-	-	-	-	+
-- Internal teacher meetings	-	-	-	-	+
-- Teaching methods/aids used	-	-	-	+	-
-- Discipline/autonomy	-	-	+	-	-
Class teacher's opinion					
-- Proper ventilation/natural light	+	-	-	-	-
-- Sufficient seating space	+	-	-	-	-
-- Teaching aids availability/use	+	-	-	-	+
-- Textbooks	+	-	-	-	-
-- Teacher mobility/transfers	-	+	-	+	-
-- School class practices	-	-	-	+	-

Key: + = Included

- = Not-included in the specific country questionnaire.

Appendix II:4

SCHOOL QUESTIONNAIRE

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
Head teacher: personal characteristics					
-- Age	+	+	+	-	+
-- Sex	+	+	+	-	+
-- Civil status	-	+	-	-	+
Head teacher: professional qualifications					
-- Education/diplomas	+	+	-	-	+
-- Teacher training	+	+	-	-	+
-- Head teacher training	-	+	-	-	+
Head teacher: professional experience					
-- Years of teaching experience	+	+	-	-	+
-- Years at present school	+	+	-	-	+
-- Years as head teacher	+	+	-	-	+
School description					
-- Size/type of school	+	+	+	-	+
-- Location: rural/urban	-	-	+	-	+
-- School group participation	+	-	+	-	+
-- Average class size/composition	-	+	+	+	+
-- Age of school building	+	-	+	-	-
-- Materials used in school construction	+	-	+	-	-
-- Area of school/classrooms	+	-	+	-	-
Teacher description					
-- Number of teachers	+	-	+	+	+
-- Number of male teachers	+	-	+	-	+
-- Teacher age distribution	+	-	-	-	-
Financial considerations					
-- Salaries, fees	+	+	-	-	-
-- Budgets	+	-	+	-	-
-- Source of revenue	+	-	-	-	-
Access to school					
-- Distance school/home	-	+	-	-	+
-- Live-in facilities	-	-	-	-	+
-- Proper road to school	-	+	-	-	-
-- Distance from other educational institutions	+	+	-	-	+
Pupil/teacher turn-over					
-- Pupil transfer/drop-out	-	+	+	+	-
-- Teacher mobility	-	+	+	+	-

Key: + = Included
- = Not-included in the specific country questionnaire.

Appendix II:4 (continued)

SCHOOL QUESTIONNAIRE (continued)

CATEGORIES	COUNTRIES				
	CHINA	JORDAN	MALI	MAURITIUS	MOROCCO
School facilities					
-- Activity, staff rooms	+	-	+	+	+
-- School furniture	+	+	+	-	-
-- Teaching aids	+	+	-	+	+
-- Television/radio/telephone	+	+	-	+	-
-- Tape recorder/video/computer	+	+	-	-	-
-- Proper heating/ventilation	+	+	+	-	-
-- Speaker system	+	+	-	-	-
-- Playground/garden	+	-	+	+	+
-- Electricity	+	+	+	-	+
-- Water taps/toilet	+	+	+	-	+
-- Lunch room/library	-	-	+	-	+
School services					
-- Library book loan	-	+	+	-	-
-- Lunch program	+	+	-	-	+
-- Medical centre	-	+	-	+	-
-- Janitorial services	-	-	-	-	+
-- Administrative/secretarial services	-	-	-	-	+
-- Transport services	-	-	-	-	+
School inspection					
-- Frequency of inspection visits	+	+	-	-	-
-- Purpose of visits	+	+	-	-	-
Head teacher work-load					
-- Teaching: subjects/levels/periods	+	+	-	-	-
-- Administrative duties	+	+	-	-	+
-- Outside meetings	+	+	+	-	+
-- Teacher supervision/help	+	+	-	-	+
-- Continued education	-	-	-	-	+
-- Meeting parents	-	-	-	-	+
Head teacher's opinion					
-- School infra-structure	+	+	-	-	-
-- Absenteeism	-	+	-	-	-
-- Teacher training/hiring	+	+	-	-	-
-- School equipment/teaching aids	-	+	-	-	-
Miscellaneous					
-- Publisher/editor of school books	+	-	-	-	-

Key: + = Included
- = Not-included in the specific country questionnaire.

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