



Association for the Development of Education in Africa

**ADEA Biennial Meeting 2003
(Grand Baie, Mauritius, December 3-6, 2003)**

**Monitoring Learning Achievement
(MLA) Project in Africa**

by Vinayagum Chinapah

**Working Document
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Association for the Development of Education in Africa (ADEA)

International Institute for Educational Planning

7-9 rue Eugène Delacroix

75116 Paris, France

Tel.: +33(0) 1 45 03 77 57

Fax: +33(0)1 45 03 39 65

adea@iiep.unesco.org

Web site: www.ADEAnet.org

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Acronyms and abbreviations

ADEA	Association for the Development of Education in Africa
CONFEMEN	Conférence des Ministres de l'Éducation des pays ayant le Français en partage
MLA	Monitoring Learning Achievement
NESIS	National Education Statistical Information Systems
PASEC	Programme d'Analyse des Systèmes Éducatifs des Pays de la CONFEMEN
PRSP	Poverty Reduction Strategy Papers
SACMEQ	Southern Africa Consortium for Monitoring Educational Quality
SAP	Structural Adjustment Programs
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

Monitoring and assessing what is taught and what is effectively learnt, how and under which conditions require appropriate monitoring, evaluation and assessment methodologies; trained and sustainable endogenous human capacities; relevant country-specific and common-core designs, quality indicators and instrumentation. UNESCO, in collaboration with UNICEF and the Member States, has demonstrated since Jomtien (1990) and after Dakar (2000) that these are achievable goals in all countries. While there are a number of existing approaches to measuring learning outcomes it is becoming evident that countries, families, and learners are concerned that measurement of the quality of education (Dakar goals No.3 and No. 6) is usually not sufficient for both the cognitive and the non-cognitive aspects. Different modalities of capacity-building/training are still needed.

Based upon a holistic approach to educational assessment and the development of quality indicators, the UNESCO-UNICEF Monitoring Learning Achievement (MLA) programme has over more than a decade successfully assisted some 70 member states, of which, 46 are African countries in developing and/or strengthening their national systems for monitoring and assessment learning outcomes.

The present paper addresses mainly the empirical evidence (findings and recommendations) of the MLA Project in Africa since 1992. It also touches upon the conceptual, methodological and analytical approach in educational assessment that Africa requires in order to promote “**an endogenous culture of evaluation**” which responds to African needs and priorities.

1. CONTEXT, BACKGROUND AND RATIONALE

1. Most educational systems (formal and non-formal) require effective assessment systems for monitoring and measuring learning outcomes, both cognitive and non-cognitive. Quantitative and qualitative evaluation and assessment tools are necessary in order to effectively address the increasing need for improvement in this field. This is achievable only through the genuine mobilization and utilization of endogenous human resource capacities in the field of evaluation, monitoring and assessment. Monitoring and assessing what is taught and what is effectively learnt, how and under which conditions require appropriate monitoring, evaluation and assessment methodologies; trained and sustainable endogenous human capacities; and relevant country-specific and common-core designs, quality indicators and instrumentation.

2. In March 1990, representatives of more than one hundred and fifty governments gathered in Jomtien, Thailand, to participate in the World Conference on Education for All (WCEA). The WCEA was organized in response to the widespread recognition of the deterioration in education systems in the 1980s, and concern over the millions of children and adults who remained illiterate and poorly prepared for life in their own societies. A decade later in Dakar for the World Forum of Education for All (EFA), April 2000, we could not more than agree with the fact that not so much has been achieved during this ten-year period. At WCEA, measuring improvement in learning outcomes was given more than ever, a significant importance. Besides providing equality of educational opportunities in terms of access, systems for measuring learning outcomes were strongly proposed to assist informed educational policy-making. Development assistance, scientific *cum* evaluation research, training and capacity-building, “think-tank” and advocacy were also directed to reinforce such systems.

3. The rationale in developing relevant systems for measuring learning outcomes is therefore not only to measure what is actually being learned, but also how well the (education) system is working. Measuring students’ learning outcomes is therefore an integral part of the educational process and it is crucial for monitoring the implementation of educational programmes and the evaluation of their impact. Achievement data obtained during the course of on-going intervention would provide important feedback and essential information for formative assessment and continuous improvement of such programmes. It is recognized that for a type of assessment survey to be of any use in improving educational quality, it has to be oriented towards inducing a response from practitioners in their roles as teachers, managers, or policy makers. For this to be possible, instruments would have to be flexible and adaptable to the unique contexts of classrooms, schools and communities so as to uncover information that would be considered useable by the actors concerned.

4. Article 4: Focusing on learning acquisition of WCEA presented below paved the way to a renewed broader concern. It appealed to worldwide concerted efforts to the “problematic” of measuring improvement in learning outcomes.

Article 4: Focusing on Learning acquisition

Whether or not expanded educational opportunities will translate into meaningful development – for an individual or for society – depends ultimately on whether people actually learn as a result of those opportunities, i.e. whether they incorporate useful knowledge, reasoning ability, skills, and values. The focus of basic education must, therefore be on actual learning acquisition and outcome, rather than exclusively upon enrolment, continued participation in organized programmes and completion of certification requirements. Active and participatory approaches are particularly valuable in assuring learning acquisition and allowing learners to reach their fullest potential. It is, therefore, necessary to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievement.

World Declaration on Education for All, Jomtien, Thailand, March 1990

5. Prior to WCEA, in 1990, and for nearly 50 years, learning from other systems' successes or failures through surveys that measure improvement in learning outcomes, was a common practice. They were instrumental in the process of initiating and implementing educational reforms in a number of western industrialized nations (developed countries). There were many such international cross-sectional surveys such as those of the International Association for the Evaluation of Educational Achievement (IEA) and the International Assessment of Educational Progress (IEAP). IEA surveys has continued, among others, in the Third Mathematics and Science Studies (TIMSS) and Progress in Reading Literacy Study (PIRLS) which in many ways contributed to the recent Organization for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA). These surveys provide comparisons of learning outcomes between countries.

6. Jomtien brought therefore an additional worldwide dimension to surveys that measure improvement in learning outcomes for developing countries and those in transition. It also set a special target, namely, the "*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*" Final Report (UNESCO, 1990, p.53). The post Jomtien surveys of learning outcomes, with the exception of the international cross-sectional IEA surveys such as TIMSS or OECD-PISA, focused mainly on the realization of Article 4 of WCEA mentioned above, and the Jomtien target. They were carried out in the developing countries in order to strengthen their national and regional systems for continuous monitoring and assessment. There are today several such surveys: (1) the Monitoring Learning Achievement (MLA), (2) the Latin American Laboratory for Assessment of Educational Quality (Laboratorio), (3) the Programme for the Analysis of Educational Systems of the CONFEMEN Countries (PASEC), and (4) the Southern Africa Consortium for Measuring Education Quality (SACMEQ). In the past few years, more than 120 countries worldwide have participated in different surveys measuring improvement in learning outcomes in different regions, at different grades and in different subject areas.

7. In view of the preparation of the World Forum on Education for All (EFA) held in Dakar, in April 2000, UNESCO and its partners were mandated to carry out a 10-year assessment of the Jomtien goals. This exercise was known as the EFA 2000 Assessment. It provided a unique opportunity for a worldwide attempt to measure improvement in learning outcomes. The results from these surveys were then used to

establish one of the six goals of the Dakar Framework of Action, namely EFA. Goal No. 6, which was a re-affirmation of the vision, set out in a decade ago in Jomtien.

EFA Goal N° 6

“Improve every aspect of the quality of education, and ensuring their excellence so that recognized and measurable learning outcomes are achieved by all especially in literacy, numeracy and essential life skills”

Objective N° 6 The Dakar framework of action April 2000

8. The results presented in Dakar, 10 years after Jomtien, were published by UNESCO in a special report devoted to measuring improvement in learning outcomes which is entitled **Status and Trends: Assessing Learning Achievement**, UNESCO, 2000. A special session was organized in Dakar to present these results. The EFA 2000 assessment surveys of learning outcomes revealed that, despite important efforts accomplished in many countries, there are still serious challenges to quality in education. For example, it was found that a sizeable percentage of children are acquiring only a fraction of the knowledge and skills they are expected to master. Much is said and written about surveys that measure learning outcomes. The richness, implications, strengths and weaknesses of these surveys, whether they are international, regional, national, cross-sectional or longitudinal, are constantly under review (Husén, 1989; Purves, 1989; Chinapah, 1992; UNESCO-Prospets, 1992; Tuijnman and Posthlewate, 1994; Kellaghan and Grisay, 1995; Keeves, 1997; UNESCO, 2000, Leithwood and Hallinger, in press).

9. It is therefore, far beyond the scope of this paper to examine critically and to do justice to the various lessons learned from so many surveys of measuring learning outcomes that have more than half a century of existence. This contribution can only highlight the decisive role such surveys can play in serving informed decision-making for the promotion of quality education at international, regional, national and sub-national levels.

2. MONITORING LEARNING ACHIEVEMENT (MLA) PROJECT

10. The joint UNESCO-UNICEF Monitoring Learning Achievement (MLA) project is an on-going project that started in the early 1990's as a result to the Jomtien World Conference on Education for All. A decade later, the World Forum on Education for All held in Dakar, April 2000 reiterated the importance of the MLA Project in promoting quality of education through capacity-building mechanisms and brought it at the rank of a Major Objective to achieve in 2015. Based upon a holistic approach to educational assessment and the development of quality indicators, the Monitoring Learning Achievement (MLA) programme has over more than a decade successfully assisted some 72 Member States in developing and/or strengthening their national systems for monitoring and assessment learning outcomes. This programme of assessment is flexible and ranges from early childhood, basic and secondary education to nonformal adult literacy. Its strengths are through its capacity-building modalities for "critical masses", country-specificity, and country-ownership through a broad-base partnership. The MLA project has an international coverage (Table 1) with some emphasis on the developing countries and countries in transition. It is an evolving project, from primary education (MLA I-Grade 4/5) in the 1990s to include junior secondary level (MLA II -Grade 8) at the beginning of this 21st century.

Table 1 **MLA surveys of learning outcomes in the world 1992-2003**

Total number of countries	Surveys	Grade and learning areas	Participating countries
72 countries	Monitoring Learning Achievement (MLA) (1992-2003)	<p>MLA I</p> <p>Grades 4 and 5</p> <p>literacy, numeracy and life skills;</p> <p>&</p> <p>MLA II</p> <p>Grade 8</p> <p>mathematics and science with life skills' approach.</p>	<p>MLA I and II completed: 48 countries</p> <p>Algeria, Azerbaijan, Botswana, Burkina Faso, Burundi, Cameroon, China, Comoros, Croatia, Ecuador, Gabon, Gambia, Jordan, Kazakhstan, Kuwait, Kyrgyz Republic, Lebanon, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritius, Mongolia, Morocco, Mozambique, Nepal, Niger, Nigeria, Oman, Palestine, Rodrigues (Mauritius), Rwanda, Sao Tome and Principe, Senegal, Seychelles, Slovakia, South Africa, Sri Lanka, Sudan, Syria, Tunisia, Uganda, Uzbekistan, Yugoslavia, Zambia, Zanzibar, Yemen.</p>
		<p>MLA I and II ongoing: 24 countries</p> <p>Armenia, Bahrain, Congo (Democratic Republic), Equatorial Guinea, Eritrea, Ethiopia, Ghana, Guinea, Guinea-Bissau, Haiti, Iraq, Ivory Coast, Kenya, Lesotho, Namibia, Pakistan, Qatar, Sierra Leone, Somalia, Swaziland, Tajikistan, Togo, Turkmenistan, Tanzania (United Republic).</p>	

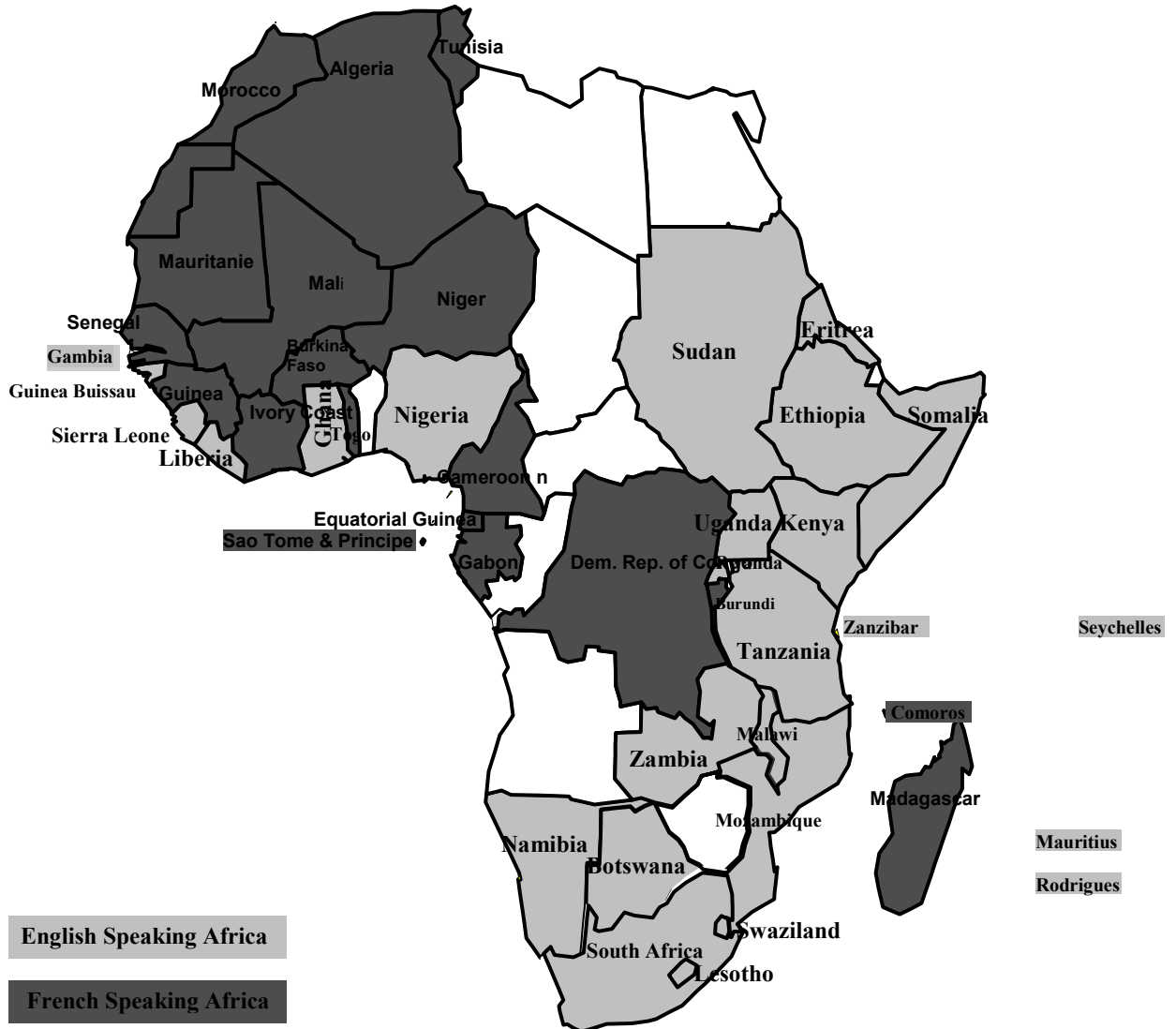
11. Key characteristics of the MLA project approach are its learner-centered orientation, its emphasis on participation, broad based partnerships and co-operation, its adoption of country specific approaches, and most important of all, its focus on capacity building and sharing. The MLA project is expected to achieve the following outcomes:

- Development of a set of measurable indicators geared to the improvement of the quality of basic education.
- The provision of up-to-date information to decision-makers at the national/sub-national level to monitor progress towards the improvement of the quality of basic educational programmes and develop a culture of assessment at all levels of educative decisions.
- Building national/sub-national capacity in monitoring the quality of basic educational programmes by providing necessary skills and technical experience through training and capacity building workshops seminars and actual implementation of the project activities (trained national teams to conduct this type of survey and assessment, development of sets of instruments --tests and questionnaires).
- Strengthening information exchange and extension of networks in the field of monitoring the quality of education.

12. Several MLA survey instruments (tests and questionnaires) are designed, pre-tested and fine-tuned to monitor learning achievement. These instruments are prepared in national, regional, and international capacity-building and training workshops. They are intended to measure basic learning competencies (BLCs) at different grades and levels of education, for example in MLA I surveys, we assess literacy, numeracy and life skills at Grade 4/5 level and whereas in MLA II surveys, mathematics and science with life skills' approach at Grade 8 level. Questionnaires (pupil, family, teacher and school) are used to assess factors influencing learning achievement.

13. Africa is the leading continent for the MLA both in response to the demands and in relation to the support given by African Member States to the development and/or strengthening of their “**culture of evaluation**”. The major pillar of the project is its focus on capacity building and training programmes for a “*critical mass*” of educational stakeholders at all levels of decision-making and implementation. As shown in Figure I, some 46 African countries are participating in the MLA surveys since 1992.

Figure 1 The MLA Project, participating countries in Africa



3. FINDINGS AND RECOMMENDATIONS FROM THE MLA PROJECT IN AFRICA

More than 50,000 Grade 4 pupils, their parents, teachers and schools were surveyed in 1999 to examine Jomtien's target towards Quality Education for All in Africa – a unique and historical event

1999 Regional MLA Survey "With Africa for Africa"

14. Despite tremendous efforts made since the 1960s, the inherited educational backlog of the majority of African countries has neither been adequately redressed, nor sufficiently improved in qualitative terms. These countries have conceived policies that emphasized the provision of equal educational opportunities for all. The equity-quality trade-offs have not yielded significant results in most educational systems. Success in striking the optimal balance between equity and quality education for all is often obscured by the quantitative number game agenda that overlooks educational inequalities.

3.1. Regional profiles of learning achievement – The African perspectives

15. In developing countries in general, there was not a single regional survey, which measured improvement in learning outcomes prior to Jomtien, in 1990. For example, the 1999 Regional Monitoring Learning Achievement (MLA) survey, which was especially commissioned for Indicators 15 of the EFA 2000 Assessment Survey, was the first one of its kind in Africa. The 1999 African MLA survey assessed learner performance from the viewpoint of what is taught and learnt in and out-of schools. The detailed results of learning achievement are presented in the various learning domains of literacy, numeracy, and life skills, respectively (Table 2).

Table 2 Learning achievement profiles of selected MLA African countries by learning domains for Grade 4 pupils (% mean scores)

	Literacy				Numeracy			Life Skills		
	Vocabulary	Comprehension	Grammar	Writing	Number	Measurement	Geometry	Health	Civic & Environment	Science & Technology
Botswana	70.0	53.0	49.0	27.0	53.0	39.0	54.0	54.0	69.0	49.0
Madagascar	53.0	72.0	48.0	56.0	49.0	32.0	43.0	80.0	72.0	76.0
Malawi	54.0	37.0	35.0	23.0	42.0	43.0	47.0	78.0	80.0	70.0
Mali	85.0	57.0	43.5	45.3	34.1	49.9	48.3	56.2	58.1	55.6
Mauritius	89.0	68.0	60.0	47.8	61.5	52.1	61.7	67.2	67.2	56.7
Niger	80.6	50.5	43.2	32.7	35.9	42.6	45.8	46.2	48.7	48.5
Senegal	75.2	48.4	48.7	36.1	28.9	39.4	38.4	47.6	48.4	40.6
Uganda	80.0	62.0	59.0	47.0	48.7	47.6	52.6	68.4	66.3	64.0
Zambia	72.0	45.0	49.0	28.0	36.0	35.0	37.0	52.0	52.0	48.0

Source: Chinapah et al. 2000a, p. 21 (adjusted).

16. These results indicate that the most salient feature of any single or composite indicator of African education development through measurement students' learning outcome is the marked between – and within- country differences. For example, countries that do well, maintain their advantage over most learning domains. Likewise, the within-country differences remained constant across given subject areas. In literacy highest performance are found in vocabulary while lowest in writing across most countries. Similar trends were observed in the recent MLA II surveys for Grade 8 students in mathematics and science for selected African countries (Table 3). Unfortunately, such indicators of learning outcomes are not often exploited (UNESCO, 2002a). For the majority of African children, many structural and personal factors work against an equal quality of learning for all. At the same time, analysis of the conditions of teaching and learning indicate that there are clear indicative trends of African educational success. Since learners differ in many ways as individuals, at home, at school and at community levels, the main tasks of the educational system and sub-systems should be to adapt teaching and learning in order to meet the different needs and opportunities of all learners.

Table 3 Learning achievement profiles of selected MLA African countries by learning areas for Grade 8 pupils (% mean scores)

Country	Mathematics	Physics	Chemistry	Other Sciences
Burkina Faso	31.91	40.15	41.92	57.00
Cameroon	29.20	39.06	44.79	54.85
Mali	24.52	34.13	32.54	38.17
Mauritania	34.19	27.35	32.69	45.69
Niger	27.34	33.13	35.34	45.81
Senegal	36.29	36.76	39.15	50.56

Source: UNESCO-UNICEF Monitoring Learning Achievement (MLA II) Project database 2003, UNESCO, Paris.

17. The EFA 2000 MLA Assessment Surveys of learning outcomes presented in this paper adopted a generic framework of quality education for all, “Mastery learning”. “Mastery learning” as such, is neither a new concept nor a revolutionary one. However, it needs to be optimally used in order to guide intervention in areas such as: assessment, curriculum reforms and improvement in teaching and learning, just to mention a few. Mastery learning can ensure quality learning through continuous monitoring and application of appropriate corrective measures and can assist in reaching the often-marginalized mass of learners who become forced 'failures' and 'drop-outs' of educational systems. For this very reason, basic learning competency levels were established for the three learning areas of literacy, numeracy and life skills in the 1999 MLA I surveys.

Table 4: Percentage of Grade 4 pupils who attained the minimum (MML) and desirable (DML) levels of mastery learning

Country	Combined		Literacy		Numeracy		Life Skills	
	MML	DML	MML	DML	MML	DML	MML	DML
Botswana	57.8	8.7	46.2	6.0	55.4	5.4	71.8	14.9
Madagascar	66.1	11.7	56.9	20.6	34.4	5.6	97.3	60.3
Malawi	54.9	3.0	15.3	1.4	30.7	1.4	95.4	69.4
Mali	54.4	7.3	50.4	13.1	37.9	6.2	69.8	23.7
Mauritius	70.3	24.1	77.6	35.4	70.3	26.4	71.6	32.4
Niger	25.6	2.0	39.3	3.6	15.3	5.7	44.9	7.0
Senegal	31.2	2.0	45.6	6.7	22.9	3.0	36.3	7.0
Uganda	54.4	14.4	64.3	23.3	41.9	10.2	78.8	51.1
Zambia	31.9	5.6	37.8	7.3	19.9	4.4	49.0	26.1

Source: Chinapah et al, 2000a, p.20.

18. The findings in Table 4 clearly suggests that ensuring the minimum mastery level of learning (MML) for all should be the first step towards excellence and the attainment of desired mastery level of learning for all (DML). Quality of education for all is no longer a dream. It is an attainable reality, provided that genuine efforts can be made to address the problems of educational access and minimal educational treatment as well (e.g. provision of an adequate qualified and stable teaching-force; maintenance of

minimal health, food, and library services; and improvement of basic school facilities). The results of the EFA 2000 Assessment surveys as well as those from the national, regional and international studies may serve as root sources of policy relevant information that will contribute to progressive gains in learner performance. In this way also, gains in educational quality can be understood and treated with reference to performance in other pertinent areas such as politics, history, economy, culture and demography.

19. The inconsistent patterns of learners' performance that are observed across countries and between the different learning domains and areas at different grade levels point at one constant. **More attention should be given to curriculum planning, teacher education and training, and textbook development to identify selected areas for intervention. Teaching and learning outcomes are not only influenced by the specificity of a particular country, its teachers and learners, but equally by the specific characteristics of each and every learning domain and area.**

3.2. Disparities in learning achievement

20. Providing universal access to educational opportunities and at the same time ensuring that the basic learning competencies of all learners are met, still remain distant targets for most educational systems of the world. These ever-lasting challenges are not always studied empirically. From UNESCO's perspective and that of its partners, an assessment of learner performance across gender, regional and school environments is more of a necessity than simply a need for stocktaking. Therefore, all countries around the world must have this unique and historical opportunity to raise their voices and to establish a permanent system to monitor the quality of education for all offered.

3.2.1. Challenge of achieving gender parity

21. Gender parity in learning outcomes at the lower grades of basic education is an achievable goal. Other surveys indicate that it is the same at secondary level mainly in literacy but not always in mathematics and sciences. One of the greatest challenges for girls and women education in the 21st century is the necessity to replace the vision of gender parity for all types and forms of education with the reality. As shown from the results of surveys measuring improvement in learning outcomes for some decades now, in various countries and across different subject areas, there is more than ever a great need to have more women in educational administration, planning, and managerial positions. All these may represent an ever-lasting value added to education and to humankind as a whole. The results from the surveys in many other developing countries show that girls outperform boys at lower grade while boys outperform girls at the upper grades. The MLA I surveys for Grade 4 and the MLA II Surveys for Grade 8 confirm this trend in many African countries. We have chosen to present the recent 2002-2003 results of the MLA II survey in some African countries to illustrate the serious challenges for achieving gender parity at secondary education level in Africa (Table 5). It can be noted that with the exception of Niger where girls generally do better, the most statistically significant differences observed are those in favor of boys' performances. These gender differences are clear proxies for the broad and untapped areas of inequalities in African educational systems.

Table 5 Monitoring Learning Achievement (MLA II) – Grade 8 survey results 2002-2003 (% mean scores by gender and discipline from 6 African countries)

Country	Mathematics			Physics			Chemistry			Other Sciences		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Burkina Faso	32.5	31.0	31.9	42.6	36.6	40.2*	42.8	40.6	41.9	58.3	55.1	57.0*
Cameroon	30.9	27.5	29.2*	41.8	36.2	39.1*	46.1	43.4	44.8*	56.4	53.2	54.9*
Mali	25.2	23.6	24.5*	35.3	32.5	34.1*	33.5	31.2	32.5*	39.0	37.1	38.2*
Mauritania	36.4	32.0	34.2*	28.8	25.9	27.4*	33.9	31.5	32.7*	46.3	45.1	45.7
Niger	28.0	26.4	27.3	32.3	34.4	33.1*	34.8	36.1	35.4	45.8	45.9	45.8
Senegal	38.6	33.9	36.3*	38.7	34.9	36.8*	40.4	38.0	39.2	52.0	49.2	50.6*

* Statistically Significant

Source: UNESCO-UNICEF Monitoring Learning Achievement (MLA II) Project database 2003, UNESCO, Paris

3.2.2. Redressing urban and rural disparities

22. Urban-rural parity in learner performance must remain a top-priority policy intervention in all countries surveyed. It would not only enhance parity, but would also create the value that is added in order to successfully reduce, among other things, the existing gender and socio-economic inequalities facing our children, future youth and parents. A striking finding from most of the MLA analyses, was the consistent results concerning the strong impact of school location and type of learner performance and the important role this predictor plays as a mediator for other predictors in the conceptual model. Revitalizing educational hopes must go hand in hand with appropriate corrective measures for redressing urban-rural disparities in learner performance, while simultaneously boosting education growth in both quantitative and qualitative terms. In all the MLA surveys in Africa since 1992, the results clearly show that urban schoolchildren outperformed rural school children overall and in all learning areas. The results in Table 6 below indicates such a trend

Table 6: Rural urban disparities in student learning in 1999 MLA surveys

Rural-urban differences in overall mean score per country				
Country	Urban	Rural	Differences	Significance level
Botswana	49.8	47.4	2.4	0.00
Madagascar	62.8	54.0	8.8	0.00
Mali	53.2	51.1	2.1	0.00
Malawi	54.3	47.8	6.5	0.00
Mauritius	62.8	57.2	5.6	0.00
Niger	42.8	41.7	1.2	0.01
Senegal	46.6	44.0	2.6	0.00
Uganda	59.9	59.4	0.5	0.17
Zambia	45.3	37.8	7.4	0.00

Source: Chinapah et al, 2001, p.27

23. We have chosen to conclude this section by examining the accumulating effects (if any) of different sources of educational inequalities and disparities on learning achievement. The MLA survey results of Mali by gender and location for different years, grades, and learning areas (Table 7) capture these effects. It is important to note that there are consistent patterns with the only exception of the reverse occurring in 2002 for Grade 8 students in mathematics and science. The latter case clearly requires further in-depth studies to draw up some lessons as to why girls and rural students outperformed boys and urban students at lower secondary level.

Table 7 Disparities in learning achievement by gender and location for different years, Grades, and learning areas: The case of Mali

Learning areas	1993/1994 Grade 4 (MLA I)				1998/1999 Grade 4 (MLA I)				2002 Grade 8 (MLA II)			
	Location		Gender		Location		Gender		Location		Gender	
	Rural	Urban	Girls	Boys	Rural	Urban	Girls	Boys	Rural	Urban	Girls	Boys
Literacy	40.20	50.10	42.09	48.17	48.92	55.87	49.76	54.42	-	-	-	-
Numeracy / maths	27.20	34.80	31.05	33.50	36.70	38.14	42.79	44.58	25.17	23.60	24.72	23.90
Life skills / science	28.24	42.18	34.08	35.84	51.50	62.23	56.39	56.48	36.34	34.23	35.48	35.30

Source: Mali MLA National Reports (MLA I 1993-1994, MLA I 1998-1999, MLA II 2002)

4. SELECTED MLA SURVEYS

4.1. Botswana

24. In the recent Botswana MLA I survey of 1999, it became clear that the situation has not changed that much since the national assessment survey made two decades ago (Husèn, 1977). Much still needs to be done for the improvement of learning outcomes and for boosting the quality of education of the country. The results from the 1999 MLA survey found reason for concern that the massive effort is not producing quality achievement. The percentages of pupils who are competent in literacy in English, literacy in Setswana, and numeracy are quite low. An explanation has been suggested that tough teachers give children homework; the homework is not taken seriously because children are given domestic chores at home and they also like to play with their friends. This comes from the pupils themselves, who know why they do not complete or do their homework, but the intensity of this help may not be constant for all the parents. Some parents with only primary education or no education at all may not be able to help their children to do their homework. Children with parents who attained secondary education or higher did better than children whose parents had less education. Part of the explanation could be that these parents are able to help their children with their homework. These are the parents who are most likely working and therefore able to make educational facilities available in the homes. (Ministry of Education, Botswana, 2001, pp. 144-145). The numerous positive correlations that are shown in Table 8 point to the fact that improvements of educational quality cannot depend on one line action since there are many factors that influence educational outcomes. No single factor alone accounts for all variations in academic achievement. Each factors contributes a little; some a little more than others. When the factors are all operating in a positive direction, then academic achievement can be improved.

Table 8 Correlation coefficients between selected school environment factors and pupils' learning achievement

Factor	Learning areas				Average
	Life skills	Numeracy	Literacy in English	Literacy in Setswana	
Teacher absenteeism in the whole school	0.05	0.14	0.13	0.10	0.11
Grade 4 teacher absenteeism	0.07	0.12	0.11	0.09	0.10
Availability of electricity	0.05	0.13	0.19	0.12	0.12
Availability of computer	0.07	0.11	0.19	0.06	0.11
Safety of the school environment	0.12	0.12	0.14	0.11	0.12
Physical abuse of teachers	0.10	0.13	0.11	0.10	0.11
Physical abuse of pupils	0.04	0.11	0.16	0.08	0.10
Mean	0.07	0.12	0.15	0.09	0.11

Source: Botswana MLA National Report, January 2001, p 111.

4.2. Mauritius

25. Mauritius had its first National Educational Evaluation Survey in 1980 with the support from the Swedish Agency for Educational Research with Developing Countries (SAREC). The main publication from this survey (Chinapah, 1983) entitled *Participation and Performance in Primary Schooling: A Study of Equality of Educational Opportunity in Mauritius*. The survey was carried out at a time when policy-makers, planners and educators in the country were confronted with both structural and pedagogical reforms questions. Data were collected through questionnaires given to pupils, parents, teachers and school head teachers. Items from the IEA tests in word knowledge, reading comprehension and English as a foreign language were selected as a battery of aptitude tests together with results from the national examination at the end of primary school leaving in English, French, mathematics and geography. The latter was used as a measure of scholastic achievement. The sample consisted of 1500 Grade 6 pupils, their parents, 210 teachers and 54 schools. Although Mauritius made significant achievement in providing equal access to education, i.e. achieving universal primary education already in the early 1970s, serious disparities in learning outcomes were still found by socio-economic and cultural groups, by districts, type of schools and the like (Table 9).

26. There has been evidence from virtually every aspect of the study that equality of educational opportunity per se as seen from the standpoint of school participation and scholastic performance of different groups of children – would remain a perpetual dream without a genuine effort to approach the overall problem of social inequality in the society (Chinapah, 1983, p.67). As was the case of Botswana, in Mauritius more than two decades after the first survey of learning outcomes, the elimination of disparities in learning outcomes that are due to home and school differences was found not to be that easy. The results below are drawn from the 1999 MLA I survey in Mauritius of learning outcomes for Grade 4 pupils (Mauritius Examinations Syndicate, pp 3-4, 2003).

- Mauritius has not yet met its Jomtien targets (that is where at least 80% of the learners should attain the defined areas). However, Mauritius has made significant progress in the pursuit of the EFA goals the percentage of learners who has attained the minimum mastery level (MML) in all the learning areas has increased from 56% in 1993 to 70% in 1999. Within the learning areas, a significant increase in the literacy level is noted whereas the decreases in life skills and numeracy levels were very small.
- Nearly one out of every four children surveyed has shown thorough mastery of higher order skills in all the three subjects.
- Highest and lowest performances on the literacy test were recorded for the domains of vocabulary and writing-expression respectively. Despite the fact that students had a sound knowledge of vocabulary, they had much difficulty in communicating their thoughts by writing sentences and coherent pieces of prose
- On the numeracy test, best and worst performances were recorded in the domains of Numbers/Geometry and Measurement respectively. On the Life Skills test, items in the domains of Health and Civic Sense-Environment proved to be accessible whereas items testing knowledge of science and technology proved to be challenging.
- Children in urban schools performed significantly better than those in the four zones.

- Highest overall performance was recorded in government schools as compared to government's subsidized schools. However, the performance varied with type of school within learning areas.
- Significant gender-related differences in mean scores on all three tests were recorded – the girls performing better than boys.

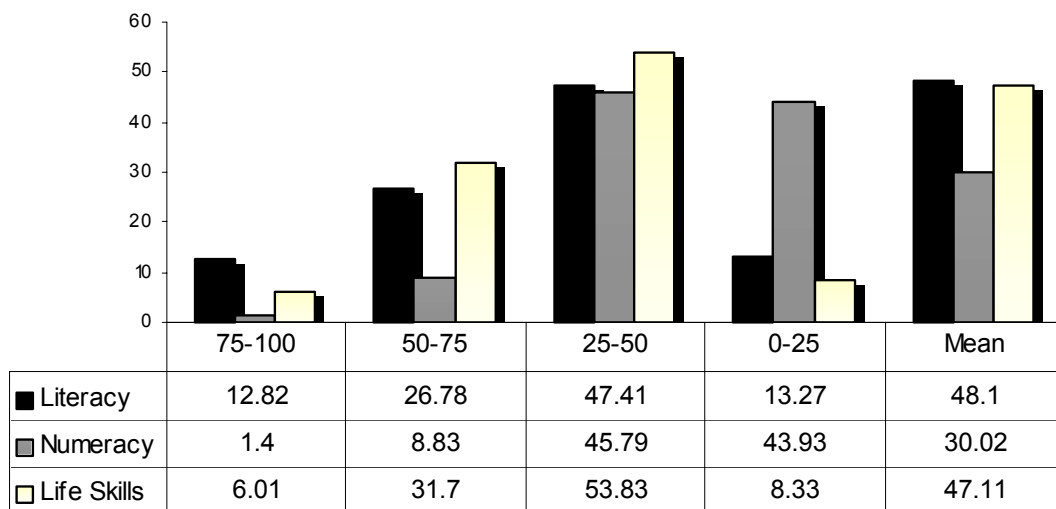
Table 9 Correlation coefficients between achievement in BLCs and selected home

Variables	Test Scores			
	Literacy (English)	Literacy (French)	Numeracy	Life skills
Family factors				
Socio economic status				
Low	.51 (-)	.51 (-)	.51 (-)	.45 (-)
Average	.30 (+)	.29 (+)	.28 (+)	.22 (+)
High	.43 (+)	.44 (+)	.46 (+)	.43 (+)
Profession				
Manual	.37 (-)	.43 (-)	.40 (-)	.29 (-)
Professional	.51 (+)	.50 (+)	.50 (+)	.44 (+)
Family size				
Small	.22 (+)	.20 (+)	.18 (+)	.22 (-)
Large	.37 (-)	.33 (-)	.36 (-)	.30 (+)
Qualification				
Primary	.50 (-)	.50 (-)	.49 (-)	.43 (-)
Secondary	.40 (+)	.40 (+)	.39 (+)	.32 (+)
Higher	.37 (+)	.37 (+)	.34 (+)	.33 (+)
Income				
Low	.44 (-)	.46 (-)	.47 (-)	.38 (-)
Average	.38 (+)	.36 (+)	.37 (+)	.33 (+)
High	.42 (+)	.42 (+)	.41 (+)	.41 (+)
Marital status				
Married	.30 (+)	.29 (+)	.32 (+)	.25 (+)
Divorced	.36 (-)	.29 (-)	.37 (-)	.25 (-)
Single	.15 (-)	.21 (-)	.15 (-)	.18 (-)

Source: Mauritius MLA National Report, 1996 p 34.

4.3. South Africa

27. South Africa's educational reforms since the abolition of apartheid more than a decade ago, focused on outcome-based learning. Several learning outcomes' projects were designed to accompany this reform. The MLA survey was carried out in 1999 and the results have been widely discussed inside and outside the country. Some results are shown in Figure 2 below on the achievement of South African grade 4 pupils. The MLA survey inspired similar initiative in the country, notably the Quality Learning Project (QLP), a five-year school improvement project, which began in 2000.



Source: South Africa, MLA National Report, November 1999, p 7 and 8.

5. FACTORS AND DETERMINANTS OF LEARNING ACHIEVEMENT IN AFRICA THE NEED FOR A HOLISTIC APPROACH TO EDUCATIONAL QUALITY

28. Quality education for all can only be ensured on the condition that all educational role-players fully understand the dynamics of the teaching- learning processes where learners remain at the center, as targets for any intervention, be it at the level of curriculum, teaching, or learning environment. In a similar vein, enormous efforts are needed to have a stable, qualified, better-rewarded and less mobile teaching-force. Critical problems such as scarcity of teaching and learning resources, multiple school shifts, large class size, long distances to school and so on must be seriously re-addressed. Most countries surveyed suffer from a lack of such basic and fundamental needs that must be met to attain a reasonable quality of education for all in the 21st century.

29. The MLA Project has proposed a holistic analytical model using path analysis with LISREL to examine the direct, indirect and total effects of a variety of pupil, home, community, schools, teacher and classroom variables (characteristics, attitudes and behaviors) on pupils learning outcomes. The empirical evidence obtained offers serious challenges to contemporary pedagogy, learning and education as a whole. For the sake of learners, systematic and continuous learning assessment schemes are needed in most educational systems, at all educational levels and in all the learning areas and domains in order to capture – and meet – their varying needs and difficulties. There is a need to understand the dynamics in teaching and learning and the factors not only at school but also at home and in the community so as to establish what must be taught and how each learner must be better prepared to optimize her/his learning potential and attributes. All these are summarized in the Table 10 below.

Table 10 Policy recommendations based upon factors and determinants of learning achievement in Africa, results from MLA surveys (1992-2003)

Factors determinants	Policy recommendations	Countries
Content curriculum	Revise Curriculum Planning, understand and develop dynamics of teaching and learning to optimize the learning potential and attributes	Botswana, Madagascar, Malawi, Mali, Mauritius, Niger MLA I, Senegal, Uganda, Zambia, Mauritius 2003, Mauritius 1996, Niger (MLA II), Gabon, Sao Tome & Principe, Senegal
	Textbook development to identify selected areas for intervention	Mauritius 2003, Niger MLA II
	Inclusion of desirable concepts like life skills	Mauritius 1996, Gabon, Uganda
	Development of relevant pre-primary education programmes	Botswana, Gabon, Uganda

Factors determinants	Policy recommendations	Countries
Teaching and working environment	Focus on notions and errors made by pupils during the survey's tests, integrate a better system of evaluation	Botswana, Mali (MLA II), Gabon, Sao Tome & Principe, Uganda, Burkina Faso, Senegal
	Improve teacher training, promote participative techniques, provide in-service training needs and support, organize meetings and collaboration between teachers	South Africa, Botswana, Madagascar, Malawi, Mali, Mauritius, Niger MLA I, Senegal, Uganda, Zambia, Comoros, Niger MLA II, Mali (MLA II), Gabon, Sao Tome & Principe, Burkina Faso, Senegal, Mozambique
	Provide in-service teacher training in specific areas to complete their initial education and hire skilled teachers	South Africa, Niger (MLA II), Botswana, Gabon, Senegal, Mozambique
	Motivate teachers, and especially encourage teaching in rural areas: pay salaries on time, raise salaries for teachers working in rural districts, career planning, and reduce teacher absenteeism	Botswana, South Africa, Uganda, Mozambique
School and home learning environment	Create more school libraries, extend the duration of basic education and reduce repeating	Botswana, Mozambique, Senegal
	Enhance the role of the school heads and encourage them to participate in in-service training	South Africa, Niger (MLA II), Mali (MLA II), Senegal
	Provision of adequate logistics: materials and resources for improving teaching and learning processes	Botswana, Madagascar, Malawi, Mali, Mauritius, Niger MLA I, Senegal, Uganda, Zambia, Cameroon, Liberia
	Create a system for the local production of school materials (books, tables), conceive and revise school textbooks	Comoros, Sao Tome & Principe, Burkina Faso, Mozambique
	Reduce or take in charge the school fees and develop access to schools	Mali and Niger
	Increase the ratio inspectors/teachers and teachers/pupils	Gabon, Niger MLA II, Senegal South Africa
	Reduce number of pupils class	South Africa, Niger (MLA II), Botswana, Senegal, Mozambique
	Encourage parents to participate in school life, school meeting, and to help in homework	South Africa, Mali (MLA II), Botswana, Gabon, Uganda, Burkina Faso, Senegal
	Raise awareness: local radios, newspapers and televisions programmes used to orientate parents/guardians and children	Burkina Faso, Liberia, South Africa
	Encourage girls' education and reduce pupils' absenteeism	Mali (MLA II), Burkina Faso

Source: National MLA Reports (1992-2003)

6. MAJOR CHALLENGES

30. A nation's capacity to provide an education of quality to all its citizens will depend more than ever upon its success in guaranteeing a defined and acceptable minimum level of learning outcomes for all irrespective of gender, regional, socio-economic and cultural differences or disparities. Human rights to a minimum quality of education for all should continue being the main concern of assessment surveys measuring improvement in learning outcomes. From UNESCO's perspective and that of its partners, an assessment of learner performance across gender, regional and school environments is more of a necessity than simply a need for stocktaking. Therefore, all countries around the world have today the unique and historical opportunity to raise their voices and develop appropriate and endogenous monitoring systems.

10 lessons learned from MLA surveys (1992-2003)

- 1 Quality of Education For All and minimum Mastery Learning Level are attainable goals provided that the problems of educational access are first and foremost adequately addressed.
- 2 Redressing gender, urban-rural, private-public and other within-country disparities in student learning achievement so as to boost education growth in both quantitative and qualitative terms should be the cornerstone of national, regional and international educational policy-making, planning and implementation.
- 3 Greater emphasis should be placed on sustaining a minimum level of mastery in all learning areas and at all grades as a preliminary step towards attaining the desired level of mastery.
- 4 More attention should be given to curriculum planning and the provision of adequate and relevant materials for improving the teaching and learning processes.
- 5 Teacher education, teacher training and teacher's working conditions require special considerations to attain an Education of Quality For All.
- 6 Systematic and continuous learning assessment schemes are needed in all educational systems in order to understand the dynamics of the teaching and learning contexts. This may empower major stakeholders to develop relevant strategies so as to guarantee that a learner's potential and attributes can be valued and optimized.
- 7 School effectiveness can be improved through developing 'soft resources' such as discipline, self-esteem, working in a reinforcing collective milieu, partnerships and a commitment to excellence and democratic managerial leadership.
- 8 The importance of the home environment on pupil's learning achievement must not be neglected as parental education and home learning support are vital to learners. Moral values, code of conduct and other skills of young learners are often conditioned by their parental situation, behaviors and attitudes.
- 9 Parents play an active role in promoting quality education, the more the family is associated with the demands and functions of educational institutions, the more profitable it will be for the direct clientele, namely, teachers and learners.
- 10 School curriculum and its relevance as well as the teaching-learning processes need to be learner-centered. Here again, more efforts are needed in order to integrate and facilitate the teaching and learning of basic knowledge, skills, values, behaviors as well as self-learning and critical-thinking habits.

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