



Republic of Ghana

REPORT

ON THE

DEVELOPMENT OF EDUCATION

IN GHANA



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TABLE OF CONTENT

	<i>Page</i>
Executive Summary.....	4
Introduction.....	5
The New Education Reform.....	5
Structure (Pre-Tertiary Education).....	6
Curriculum (Pre-Tertiary Education).....	6
Curriculum Structure at the various Levels of Education.....	7
Kindergarten Education.....	7
Primary Education.....	7
Lower Primary.....	8
Upper Primary.....	8
Junior High School.....	8
Senior High Education.....	9
Teacher Education.....	10
Technical Vocational & Agricultural Education and Training (TVET).....	10
Major Policies (Access).....	11
The Capitation Grant.....	11
Impact of the Capitation Grant.....	12
The School Feeding Programme.....	12
Gender Parity.....	12
Kindergarten.....	14
Senior High School.....	17
Tertiary Education.....	18
Complementary Basic Education.....	20
School Environment.....	21
Curriculum and Teaching/Learning Material.....	21
Policy Goals and Objectives.....	22
Policy Target.....	24
Strategies.....	24
Special Education.....	26
Educational Provisions.....	26
Target Regions/Districts and Schools.....	27
Appointment of Resource Teachers.....	27
Sensitization and Orientation on Inclusive Education.....	28
Production of Screening Manual.....	28
Screening Teams.....	28

Screening of Children.....	28
Clinical Assessment of Pupils in Target Schools.....	28
Educational Assessment for Management of Special Needs.....	29
Integration of Children with Low Vision and Blindness.....	29
Collaboration with Sight Savers International.....	29
Establishment of Units.....	30
Current Initiatives.....	30
Units for the Low Vision and the Blink at Special School.....	30
Units for the Intellectually Disabled.....	31
Inclusive Schools with Special Education Resource Teacher Support.....	31
Quality.....	32
National Education Assessment (NEA).....	33
School Education Assessment (SEA).....	34
Curriculum.....	34
Philosophy.....	34
Curriculum response to Inclusive Education.....	35
Teacher Education.....	36
Multigrade Education.....	37
Reflective Teaching.....	37
Co-operative Learning.....	37
Creative Learning.....	37
Improved Reflective Teaching.....	38
Improved Curriculum Design, Content and Organisation.....	38
Empowerment of Teachers as Facilitators of Learning and Agent of Social Change.....	38
Provision of Clear Sense of Diverse Needs of Learners.....	38
Improvement of Learning.....	39
Provision of Interactive and Collaborative Learning Environment for Learners.....	39
Use of Portfolio Assessment/Inquiry – Oriented Supervision.....	39
Use of Electronic Teaching and Learning Approaches.....	39
Science and Technology.....	40
Information Communication Technology (ICT).....	41
Infrastructure and Logistics for Teaching and Learning.....	41
Management.....	42
Capacity Building.....	43
Conclusion.....	43

EXECUTIVE SUMMARY

The philosophy underlying our educational system is to create a well balanced individual (intellectually, spiritually, emotionally and physically) with the requisite knowledge, skills, values and aptitudes for self-actualization and for the socio-economic and political transformation of the nation.

Beyond every reasonable doubt, education contributes to improving security, health, prosperity and ecological equilibrium in the world. Education is also an indispensable condition for the existence for humanity.

The implementation of the New Education Reform in Ghana is to emphasize Technical, Agricultural, Vocational and Information, Communication and Technology Education which is the key to becoming a functional and productive citizen.

In this Report, Development of Education in Ghana, covers or unravels the structure of education from Kindergarten to the Tertiary level, poverty reduction strategies and issues on special and inclusive education as well as ICT approaches in teaching and learning in schools.

1.0 INTRODUCTION

Education contributes to improving security, health, prosperity and ecological equilibrium in the world. It promotes peace and tolerance, economic and cultural development as well as international co-operation. The right to education is one of the fundamental rights of the human being.

Education is therefore an indispensable condition for the development of the individual and society, and the existence of humanity as a whole. This right is among the pillars of the Universal Declaration of Human Rights, adopted by the International Community in 1948. However, millions of people continue to be deprived of it.

The Government of the Republic of Ghana continues to demonstrate its commitment to the well being of young children having endorsed various global policy frameworks such as the 1980 United Nations Convention on the Rights of the Child (CRC), the 2000 World Education Forum (Dakar, Senegal) and the 2000 Millennium Development Goals (MDGs).

2.0 THE NEW EDUCATION REFORM

The Government accepts that education should result in the formation of well-balanced individuals with the requisite knowledge, skills, values, attitudes and aptitudes to enable them become functional and productive citizens. In this regard, the education process should lead to improvement in the quality of life of all Ghanaians by empowering the people themselves to overcome poverty, and create the wealth that is needed for a radical socio-economic transformation of the country. To this end the education reform of 2007 places emphasis on Technical, Agricultural, Vocational and Information, Communication and Technology Education.

2.1 Structure (pre-tertiary education)

The new education system is restructured to include 2 years Kindergarten, 6 years Primary, 3 years Junior High, 4 years Senior High. In this respect the universal, free and compulsory basic education, comprising Kindergarten, Primary and Junior High is increased from 9 to 11 years between the ages 4 to 14.

2.2 Curriculum (pre-tertiary education)

Objectives:

The objectives of the pre-tertiary education curriculum are to:

- emphasize active learning rather than passive listening by students
- emphasize intellectual competencies and skills rather than subject teaching
- promote the development and application of minimum standards of learning in all curriculum
- promote the inter-consecutiveness of the different levels of the education ladder
- inculcate skills and aptitudes for lifelong learning
- strengthen literacy and numeracy at the basic level
- create a parallel structure for academic programmes at senior high school level
- promote a shift to science, technical and vocational education and training
- formalize Apprenticeship training
- encourage competency-based training
- link education to the world of work

3.0 CURRICULUM STRUCTURE AT THE VARIOUS LEVELS OF EDUCATION

3.1 Kindergarten Education

Pre-school education plays a very important role in the formative years of the child, especially its potential for overcoming learning disabilities of children. Kindergarten education, therefore, now forms part of the universal, free and compulsory basic education structure. Government is providing resources to support the expansion of Kindergarten facilities through the collaboration with District/Municipal/Metropolitan Assemblies, Non-Government Organizations (NGOs), Faith-based Organizations and Communities. This is to ensure that every Ghanaian child has access to Kindergarten education. The aim is to ensure that all school-going children have a basic education that is rooted in good Kindergarten education.

The course structure of Kindergarten education is well defined to provide opportunities for the overall development of children through individual play and group activities. Six essential areas of learning experiences of Kindergarten education are: Language and Literacy (Language Development), Creative Activities (Drawing and Writing), Mathematics (Number Work), Environmental Studies, Movement and Drama (Music and Dance) and Physical Development (Physical Education). Children at the Kindergarten are taught through activities with concrete objects, e.g. games and puzzles, to stimulate their hand-eye co-ordination and also to stimulate them to reflect their own activities. The medium of instruction is the Ghanaian language prominent in the area.

3.2 Primary Education

At the primary level, emphasis is on literacy, numeracy and problem-solving skills. Children consolidate the knowledge and skills acquired at the Kindergarten level, lay a foundation for inquiry, creativity and innovation, develop an understanding of how to lead a healthy life and achieve a healthy status. Good citizenship is also inculcated in children to enable them participate in national development and for them to develop the skills and aptitudes for assimilating new knowledge. The learning areas are:

3.3 Lower Primary

- Ghanaian Language
- English language Skills
- Basic Mathematical Skills
- Natural Science
- **Music and Dance, Physical Education, and Creative Arts**, comprising arts and crafts, are taught practically and demonstratively.

3.4 Upper primary

- Ghanaian Language
- English Language Skills
- Basic Mathematical Skills
- Integrated Science
- Citizenship Education
- **Music and Dance, Physical Education, and Creative Arts**, comprising arts and crafts, are taught practically and demonstratively.

3.5 Junior High School

The Junior High School Education provides opportunity for students to discover their interests, abilities, aptitudes and other potentials and to acquire basic scientific and technical knowledge and skills that will enable them to prepare adequately for further academic work and acquisition of technical/vocational skills at the senior high level.

The following are the subjects required by each student to learn at this level:

- English Language
- Mathematics
- Social Studies
- Integrated science (Including Agricultural Science)
- Ghanaian Language
- Technical, Vocational Education and Training (TVET)
- Information Communication Technology (ICT)
- French
- Guidance and Counseling offered to students at the JHS is strengthened to enable students choose the right programmes to suit their interest and skills

3.6 Senior High Education

Senior High Education is a 4-year post basic education and it is provided at **Senior High Schools, Technical/Vocational Institutes** and also through **Apprenticeship Schemes**. It caters for the different aptitudes, abilities, interests and skills and provides students the opportunity to pursue academic education or technical/vocational/agriculture education.

At this level, a comprehensive academic education is provided for students with the principal objective of preparing them for further education and training in tertiary institutions. The following programmes are offered in the Senior High School.

- Technical/Vocational
- Agriculture
- General Programmes (Arts or Science)

Students in Senior High Schools (SHS) study the following core subjects:

- English Language
- Mathematics
- Integrated Science
- Social Studies
- ICT- General Tools, Word processing and Spreadsheet Packages and Internet.

In addition to the core subjects, each student in the Senior High School studies any one of the following elective or optional programmes:

- Agriculture, Business (Accounting/Secretariat)
- Technical/Vocational
- General Education (Arts/Science)

3.7 Teacher Education

- A National Teaching Council (NTC) is to be formed to co-ordinate and regulate Teacher Education and Training programmes
- Teacher Education-oriented universities have been charged with the responsibility of the certification of teachers
- Untrained teachers in Basic Schools now have access to remedial courses through Distance Education
- Continuous teacher development will be undertaken to upgrade and update the competencies and skills of serving teachers
- Special attention is given to the training of teachers in Technical, Vocational, Agricultural, Special Needs Education, Guidance and Counseling, Information and Communication Technology (ICT) and French
- Teacher Training programmes for Kindergarten teachers are being developed
- Conditions of service of teachers are being improved
- Open University and Distance Learning Colleges are to be established to provide training and in-service training for teachers

3.8 Technical, Vocational and Agricultural Education and Training (TVET)

- TVET shall provide employable skills through formal and informal apprenticeship, Vocational, Technical and Agricultural Institutes, Polytechnics and Universities
- Pre-Tertiary TVET shall be provided at the following levels: Technical Institutes, Agricultural Institutes, Vocational Institutes and Apprenticeship institutions (formal and informal). It shall also be offered at the basic education as elective subjects in secondary schools
- The Council for Technical and Vocational Education and Training (COTVET) has been established to develop policy, co-ordinate and regulate all aspects of TVET
- Industry shall play a major role in all aspects of TVET
- Technical Institute training shall produce craftsmen at intermediate and advanced levels as well as technician levels of COTVET qualification for the job market. Technical Institute graduates could continue their education at the Polytechnic level to take higher courses

- Vocational Institutes shall offer courses which will lead to tradesman, artisan and master craft men levels of COTVET qualification for the job market. Vocational Institute graduates could continue their education at Technical Institutes level to take higher courses
- Agricultural Institutes shall offer courses which will lead to COTVET level qualification for the job market. Agricultural Institutes graduates could continue their education at higher level Agricultural Institutes
- There shall be two types of Apprenticeship Training by the National Apprenticeship Training Board
 - i) Formal Scheme, to be made up of classroom and on-the-job training
 - ii) On-the-job training (informal) under traditional master crafts person
- All TVET institutions, both public and private, shall be registered and accredited in order to operate
- The Competency-Based Training (CBT) curriculum delivery methodology has been adopted for the TVET system. In this approach strong emphasis will be placed on students acquiring practical skills for employment
- The service conditions for TVET teachers shall be improved to attract qualified and experienced teachers from industry
- TVET shall be resourced and promoted as a viable alternative to general education

4.0 MAJOR POLICIES (ACCESS)

The Government of Ghana continues to pursue policies and programmes geared towards alleviating mass poverty in order to enhance among other things, the welfare of children.

4.1 The Capitation Grant

A major component of Ghana's Free Compulsory Universal Basic Education Policy (FCUBE) is the improvement in access, participation and retention of children in school. Government in a bid to improve access and increase the enrolment drive, introduced the Capitation Grant Scheme whereby every Basic School child in the public system receives an amount of **Three Ghana Cedis (GH¢3.00)** per annum.

4.2 Impact of the Capitation Grant

The capitation scheme has contributed to a tremendous rise in enrolment. In terms of actual figures, an additional 616,439 pupils (i.e. 295,114 boys and 321,325 girls) over and above the 2004/2005 enrolment figures are in school presently. This represents a general percentage increase of 16.6%. Specifically, Pre-school has seen an increase of 36.58%, Primary 14.22% and JHS 10.32%.

These increases in raw enrolment figures have reflected in the gross enrolment ratio and gender parity index levels as tabulated below. Significantly more girls than boys appear to have been drawn into school by the capitation scheme. This is mirrored by the general rise in GPI in all programmes.

4.3 The School Feeding Programme

Another initiative of the Government of Ghana is the introduction of a school feeding programme on pilot basis. In this programme, children in basic schools are provided with one hot meal a day at school. Currently, the Ministry is working on multi-sectoral proposals to scale up the school feeding programme to the national level in order to benefit both boys and girls at all levels of Basic Education.

The programme uses locally grown foodstuffs to provide primary school pupils with a snack and one hot meal every school day as opposed to take home rations. The use of locally grown foodstuffs is intended to enhance the sustainability of the project and have a wider reaching poverty reduction impact in the community. These incentives will help to increase enrolment of both boys and girls and move Ghana towards the MDG targets of gender parity and universal primary completion.

4.4 Gender Parity

Ghana's ultimate education goal is to provide free compulsory universal basic education for all children including both boys and girls, hence the introduction of the FCUBE Programme in 1995.

Within the FCUBE programme and the framework of the Education Strategic Plan (ESP) 2003 -2015, the Ministry of Education and Sports (MoESS) regards gender equity in education as a key priority for achieving the Millennium Development Goals (MDGs). The MDGs set two targets as regards basic education, which Ghana is aiming at are:

- That gender parity is achieved in enrolments in basic education by 2015.
- That every child of school-going age completes a full cycle of primary education by 2015 (Universal Primary Education and Completion).

The commitment of government to make girls' education a priority has been demonstrated by the establishment of the Girls' Education Unit (GEU) in 1997 within the Basic Education Division of the Ghana Education Service (GES) to give new emphasis to the removal of barriers to girls' education in the country. Gender Parity Index (GPI) is an indicator used for assessing gender parity in education. GPI is obtained by dividing girls' enrolment ratio by boys' enrolment ratio. Thus an attainment of 1.00 in GPI means the achievement of gender parity. GPI is calculated here based on two types of enrolment ratio, that is, gross and net. Gross Enrolment Ratio (GER) is number of enrolment (irrespective of their ages) divided by population (6-11 year olds), while Net Enrolment Ratio (NER) is number of enrolment (6–11 year olds) divided by population (6–11 year olds). MDG of universal primary completion aims at achieving 100% of NER for both boys and girls at all grades by 2015.

Table 1: Trend of Enrolment Ratio and Gender Parity Index (GPI) at National Level (Basic Level)

	GROSS				NET			
	GER	GER	GER	GPI - 1	NER	NER	NER	GPI -2
	(Total)	(Boys)	(Girls)	(Gross)	(Total)	(Boys)	(Girls)	(Net)
2004/05	75.7%	78.8%	72.5%	0.92	55.9%	57.4%	54.4%	0.95
2005/06	78.4%	81.4%	75.3%	0.93	55.6%	56.5%	54.7%	0.97
2006/07	83.3%	86.2%	80.3%	0.93	59.1%	60.0%	58.3%	0.97

Table 2: Gender Parity Index (Basic Level)

In terms of Gender Parity Index (GPI) the comparative national figures for the two years are as follows:

Programme	2005/2006	2006/2007	Increase
Preschool	0.97	0.98	0.01
Primary	0.93	0.95	0.02
JHS	0.88	0.90	0.02

Table 3: Actual Enrolment Figures (Basic Level)

Programme	2005/2006	2006/2007	Increase
Preschool	547,950	748,411	200,461
Primary	2,328,373	2,659,506	331,133
JHS	822,125	906,970	84,845
TOTAL	3,698,448	4,314,887	616,439

Table 4: Disaggregated by gender the data is as follows:

Gender	2005/2006	2006/2007	Increase
Boys	1,943,909	2,239,023	295,114
Girls	1,754,539	2,075,864	321,325
TOTAL	3,698,448	4,314,887	616,439

4.5 Kindergarten

The number of Kindergarten schools has increased from 14,246 in 2006/07 to 15,449 in 2007/08. The increase from 2004/05 to 2007/08 is 120%. The reason is primarily the Government's policy that each Primary School should have a Kindergarten attached to it. As such, many crèches and nurseries are also converting to Kindergartens, partially because of government policy that every basic school should have a KG, and partially also to take advantage of the capitation grant that is provided for KG students.

Table 5: Number of Kindergarten Schools

Type of Education	2004/05	2005/06	2006/07	2007/08
Public	5,205	7,818	10,193	11,140
Private	1,804	2,913	4,053	4,309
Total	7,009	10,731	14,246	15,449

Enrolment in Kindergarten has increased significantly since 2003/04. The percentage increase was 84% in the last four years and 10% since last year. Again, many nurseries are now registered as Kindergartens and thus enrolment in the last two years has increased dramatically.

The GER has increased significantly since 2003/04, with the biggest increase occurring between 2004/05 and 2005/06. Since then, progress has been slower with the GER increasing only from 89% to 89.9% in the last year. In order to meet the KG GER target of 100% by 2015, the GER would have to increase at a rate of 1.4 percentage points each year.

This rate was surpassed in previous years but not in the current year and therefore to ensure that the target is met, measures will need to be taken to ensure that the pace of enrolment does not slow down. Also note that the private sector's share has been steadily decreasing, primarily due to expanding public KG schools that do not charge fees.

Table 6: Kindergarten Enrolment Trends

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Enrolment		687,643		778,109	857,073	1,065,963		1,142,784		1,262,264
GER	64.0%	54.6%	65%	60.1%	-	85.3%	-	89.0%	85.70%	89.9%
% Private		31.2%		36.8%	31.0%	29.4%		18.9%		17.1%

The number of primary schools has increased from 16,903 in 2006/07 to 17,315 in 2007/08. The increase from 2004/05 to 2007/08 is 8%.

Table 7: Number of Primary Schools

Type of Education	2004/05	2005/06	2006/07	2007/08
Public	12,406	12,427	13,093	13,247
Private	3,622	2,990	3,810	4,068
Total	16,028	15,417	16,903	17,315

Enrolment in primary has also been increasing. The GER has been increasing steadily since 2003/04.

Table 8: Enrolment in Primary

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Enrol. Total		2,957,491	3,111,753	3,077,489	3,284,540	3,111,753	3,451,838	3,473,229		3,622,724
Enrol. Public		2,418,696		2,445,913		2,727,044		2,870,656		2,990,782
Enrol. Private		538,795		631,576		489,546		602,573		631,942
GER	86.5%	86.5%	88.5%	87.5%	90.3%	92.1%	93.3%	93.7%	96.4%	95.2%
Enrol. 6-11				2,079,986		2,484,855		3,007,172		3,174,459
NER				59.1%	64.9%	69.2%	74.3%	81.1%	84.9%	83.4%

Table 9: Number of Junior High Schools

Type of Education	2004/05	2005/06	2006/07	2007/08
Public	6,637	7,130	7,251	7,267
Private	1,786	1,619	2,083	2,240
Total	8,423	8,749	9,334	9,507

Junior High enrolment has also been increasing but as with primary, the increase between 2006/07 and 2007/08 has been small. Actual enrolments have increased by 25% since 2003/04.

The NER experienced a significant drop between 2005/06 and 2006/07 and the recovery has been minimal. This is possibly due to erroneous age reporting. This issue should be investigated.

Table 10: Enrolment in Junior High School

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Enrol. Total		984,111	1,009,800	1,048,367	1,062,827	1,121,887	1,115,80	1,170,801		1,224,964
Enrol. Public		828,517		853,230		951,673		969,351		1,015,491
Enrol. Priv.		155,594		195,137		170,214		201,450		209,473
GER	66.5%	70.2%	67.9%	72.8%	75.3%	74.7%	77.2%	77.4%	80.2%	78.8%
Enrol. 12-14				1,012,258		1,119,530		793,208		824,091
NER				70.3%	38.4%	74.5%	48.1%	52.4%	58.4%	53.0%

4.6 Senior High School

The number of Senior High Schools increased dramatically between 2005/06 and 2006/07. This was mainly due to increased coverage in the Education Census for 2007, not because a large number of schools opened.

Table 11: Number of Senior High Schools

Type of education	2005/06	2006/07	2007/08
Public	398	493	493
Private	94	207	207
Total	492	700	700

Enrolment in Senior High has increased overall, but inconsistently. There was a small drop between 2003/04 and 2005/06 as well as a more significant drop between 2006/07 and 2007/08. The 2007/08 **GER is 32.24%**.

The admission rate has decreased in the past year, to 31.5%. This may simply be because of the new adjustment method since last year adjustment was done by region and this year the adjustment was done separately for public and private schools. However, there are also many 15-17 year olds in JHS. The transition rate might actually be higher, but it is just not transition of pupils of appropriate age. This is possible, given the increases in the JHS completion rate (which is really the enrolment rate in JHS3).

Table 12: Enrolment in Senior High School

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Enrol. Total		328,426	357,434	333,002	378,559	384,455	399,684	485,742		454,681
Enrol. Public								387,850		395,839
Enrol. Private								62,657		58,842
GER		26.6%	27.5%	25.6%	28.4%	29.1%	29.2%	35.8%		32.2%
% Female		n/a	42.4%	43.5%	43.4%	49.5%	44.3%	43.8%		44.0%
Enrol. SHS1								157,437		153,402
GAR								33.3%		31.5%

4.7 Tertiary Education

Tertiary enrolments have increased significantly since 2003/04. In the 2006/07 academic year, total (known) enrolments in the tertiary sector were just over 135,000. The percentage of female students had been fluctuating around 30-35% over the period. Interestingly, the percentage enrolment in private universities has shot up from 4% to almost 20% in the last four years. This is due to the opening of 9 private universities in the last five years.

The percentage of students that are female is highest for the professional institutes, and then for private universities. It is lowest in polytechnics. This is probably because the entrance requirements are lower in private institutes, and because women do not generally enter into trades that are taught in polytechnics.

Table 13: Enrolment in Tertiary Institutions

	2003/2004				2004/2005			
	Male	Female	Total	% Female	Male	Female	Total	% Female
Universities	42,942	20,634	63,576	32%	48,055	25,353	73,408	35%
Private Uni.	1,560	1,028	2,588	40%	2,105	1,365	3,470	39%
% Private Unis.	4%	5%	4%		4%	5%	5%	
Professional Ins.	1055	958	2013	48%	881	480	1361	35%
Polytechnics	17,519	6,834	24,353	28%	18,138	6,845	24,983	27%
TOTAL	63,076	29,454	92,530	32%	69,179	34,043	103,222	33%

	2005/2006				2006/2007			
	Male	Female	Total	% Female	Male	Female	Total	% Female
Universities	54,929	29,149	84,078	35%	58,098	30,347	88,445	34%
Private Univ.	5,582	3,915	9,497	41%	11,157	7,121	18,278	39%
% Private Univ.	9%	12%	10%		16%	19%	17%	
Professional Ins.	1808	1343	3151	43%	2343	2007	4350	46%
Polytechnics	17,156	7,508	24,664	30%	20,229	8,466	28,695	30%
TOTAL	79,475	41,915	121,390	35%	91,827	47,941	139,768	34%

It has often been claimed in Ghana that access to tertiary education was excessively selective. This argument loses progressively its strength after this long period of rapid increase in enrolments. In 2004, about 75,000 candidates applied for admission to both universities and polytechnics. 32,823 have been enrolled, namely 43.4% of all applicants. As expected, the selectivity of universities is stronger than that of polytechnics (39.7% as opposed to 56.7%).

4.8 Complementary Basic Education

Complementary Basic Education Systems generally provide structured programmes of learning outside the formal school system. The learning activities take place in flexible school schedules and timetables with learner-centred, skill-based and often accelerated functional literacy curriculums.

Complementary education also encompasses the provision of an enabling teaching and learning environment relevant to the mental growth of learners, who are disadvantaged as a result of unfavourable socio-economic and cultural practices, to acquire a minimum knowledge and skills for continuing education in the formal sector. Thus complementary education offers a second opportunity for this category of children to access mainstream formal education and could therefore serve as preparatory grounds for out-of-school children to catch up with their peers already in school.

As many children through no fault of theirs have no opportunity to enter school, teaching methodology and content, under complementary programmes, are to some extent different from what pertains in the formal system. Pedagogy is organized from the children's perspective to provide a relevant context-based, value-laden curriculum which sustains their interest and quickens the pace of learning. It is child-centred and participatory, using the local language/mother tongue as the medium of instruction.

4.9 School Environment

- Age of beneficiary pupils (children who have missed admission to primary school at the statutory age of six or dropped out due to socio-cultural or economic reasons) is between 8 and 17 years.
- Class size is small, generally not more than 25 learners.
- Facilitators/instructors are resident community members.
- Facilitators should be able to read and write in the local language/mother tongue
- There is flexibility in the school time table.
- Short duration of not more than three-hours of classes a day.
- Teacher-pupil relationship is friendly and cordial.

5.0 CURRICULUM AND TEACHING/LEARNING MATERIALS

- Core areas of the curriculum are numeracy, literacy and Life Skills (problem solving).
 - The curriculum is skill-oriented and based on the needs and core values of the community.
 - The use of phonic/syllabic method in teaching.
 - The local language/mother tongue is used as a medium of instruction.
 - Teaching and learning methods are participatory and interactive.
 - Child-centred teaching with extensive individual attention.
 - There is continuous assessment of learning achievement.
- **A Literacy cycle of only nine months qualifies a learner for admission into primary school**
- Provision and accessibility to textbooks is at a pupil/book ratio of 1:1.
 - Provision and free accessibility of adequate reading materials and books.
- **Partnerships**
- Programme implementation is by civil society actors (FBOs, NGOs and CBOs) with oversight responsibility by the District Education Office
 - Cost sharing by state and non-state actors
 - Collaborative agreement at the district level, with roles and responsibilities clearly identified.

➤ **Governance**

- There is active community participation, ownership and management.
- There is a community committee with a strong female representation
- Learning centres/schools are sited in remote, isolated and deprived communities which have a considerable number of children outside the formal school system.
- Facilitators are given training on a regular basis.
- There is an in-built supervision and monitoring mechanism with support from the District Education Office

5.1 Policy Goals and Objectives

Complementary basic education policy seeks to provide alternative quality education to out-of-school children to enable them have access to formal education. The broad policy goals (PGs) and objectives are as follows:

➤ **To Provide the Disadvantaged with the Opportunity to have a Full Cycle of Basic Education (PG 1)**

- Promote a nationwide acceptance of the concept and implementation of CBE in deprived communities.
- Support the establishment of learning centres/schools for CBE programmes in all deprived communities.
- Promote training and deployment of community-based instructors for CBE learning centres/schools.
- Provide fee-free tuition to all pupils of the CBE programme.
- Support civil society organizations in the provision and delivery of CBE through partnership.

➤ **To Increase Access and Participation in Basic Education (PG 2).**

- Establish linkages between CBE and formal education.
- Integrate CBE best practices into the primary education programme.
- Remove all barriers to access CBE programme and primary education.

- **To Extend and Improve Complementary Basic Education in all Deprived Communities (PG 3)**
 - Encourage and support non-state actors/civil society organizations in the delivery of complementary education.
 - Encourage communities to provide infrastructure in collaboration with District Assemblies, Unit Committees, CBOs, FBOs and Development Partners.
 - Provide technical support and resources for operation of CBE learning centres/schools.
 - Improve capacity of CBE learning centres/schools.
 - Provide underserved communities without schools with CBE programmes throughout the country.
- **To Improve the Quality of Teaching and Learning Outcomes of Pupils in CBE Learning centres/schools (PG 4).**
 - Promote selection, training, upgrading, absorption and deployment of community-based complementary basic education facilitators/instructors.
 - Increase provision of and accessibility to textbooks in all complementary basic schools.
 - Improve skill-oriented curriculum based on community needs whilst placing emphasis on numeracy, literacy, life skills (problem solving) and values education.
 - Promote the use of local language/mother tongue as medium of instruction.
 - Ensure numeracy and literacy in local language/ mother tongue.
 - Institute pupil-placement assessment tests for CBE products for placement in primary schools.
 - Establish standards and milestones for CBE programmes.
- **To Improve and Strengthen Community Ownership and Management of CBE Learning centres/schools (PG 5)**
 - Ensure community participation in the delivery of complementary basic education.
 - Strengthen, monitor and evaluate accountability systems.
 - Clarify roles and responsibilities of CBE service providers.
 - Provide monitoring, evaluation mechanisms and guidelines for the operation of CBE learning centres/schools.

- Establish guidelines for funding CBE programmes.
- Integrate CBE into National Development Plans and Budgets (GPRS)
- Integrate CBE into the District Assembly Development Plan and Budget
- Integrate CBE into the District Education Strategic Plan and Budget.
- Increase collaborative approaches between state and non-state actors, including the private sector on CBE programmes.
- Help develop public/private partnership to improve CBE delivery

5.2 Policy Targets

Implementation of CBE Policy will contribute to the achievement of the following targets:

- Provision of CBE learning centres/schools and expansion of primary schools and JHS in deprived districts and communities.
- Increase Gross Enrolment Ratio at the National Level from:
 - 93.7% (2007) to 107.4% (2012) for primary (an increase of 13.7% of which CBE's share is 3.0%)
 - 77.4% (2007) to 90.0% (2012) for JHS

5.3 Strategies

Key strategies, identified to facilitate the achievement of the CBE policy goals are as follows:

- **To Provide the Disadvantaged with the Opportunity to have full Cycle of Basic Education (PG 1)**
 - Community sensitization on the importance of education and CBE
 - Needs and readiness assessment surveys of the community including language.
 - Community animation programmes.
 - Dissemination of policy guidelines on complementary education to stakeholders.
 - Focused sensitization and enrolment drive for girl children
 - Provision of incentive packages for all girls who transit from CBE into Formal schools.
 - Mobilization of resources for policy implementation and operation of the CBE system.

- **To Increase Access and Participation in Basic Education (PG 2)**
 - Establishment of learning centres/schools in all deprived communities.
 - Reaching out to and integration of excluded children (out-of-school/hard-to-reach/intra-cycle drop-outs) into the formal education system via the CBE programme.
- **To Extend and Improve Complementary Basic Education in all Deprived Communities (PG 3)**
 - Expansion of primary schools and JHS in deprived districts and communities.
 - Up-grading and absorbing CBE centres into the formal school system
- **To Improve the Quality of Teaching and Learning Outcomes of Pupils in CBE Learning centres/schools (PG 4)**
 - Provision of adequate teaching and learning materials.
 - Provision of textbooks/primers, developed mainly in the local language.
 - Provision of incentive packages to community-based facilitators.
 - Provision of regular training programmes for facilitators and School Management Committees.
 - Revision of primary school curriculum to incorporate best practices of the CBE system.
 - Strengthening non-authoritarian and phonic/syllabic pedagogy in CBE learning centres/schools.
 - Strengthening literacy, numeracy and problem solving skills in the local language
 - Training, up-grading and absorbing of community-based facilitators into the GES mainstream.
 - Annual assessment and evaluation of CBE programmes.
 - Evaluation and improvement of already existing CBE programmes.
 - Establishment of in-built monitoring and supervisory mechanisms.
- **To Improve and Strengthen Community Ownership and Management of CBE Learning Centres/Schools (PG 5)**
 - Provision of technical and financial support by District Assemblies, Unit Committees, MOESS/GES, NGOs, CBOs and Development Partners to facilitate delivery.
 - Factoring the operation of complementary education system into the national budget including that of the District Assemblies and GES.
 - Encouraging communities to provide material and management support to their own learning centres/schools.
 - Encouraging communities to provide support to volunteer facilitators.

- Institution of community durbars on achievement of the CBE programme.
- Coordination of CBE programmes in deprived communities.
- Establishment of a database on beneficiaries of CBE for tracer research on their progression through the public system.
- Establishment and maintenance of community-based monitoring systems for CBE programmes.

5.4 Special Education

Educational provision within the Special Education sector has been built around the medical model of segregation where the blind, deaf or mentally handicapped were educated in special boarding schools located in the outskirts of towns, separated from mainstream society. This medical model contrasts with the social model which encourages learners with disabilities to be included in mainstream schools to become active members of their society.

Currently, Special Education Division (SpED) of the Ghana Education Service has started piloting inclusive education at various levels. Programmes are in place for the blind at the first and second-cycle levels, for the deaf at second cycle level and for the mentally handicapped with the support of GTZ and VSO at the first cycle level.

The Education Strategic Plan (ESP) 2003-2015 of the MOESS has adopted inclusive education as the main policy which will inform the future direction for special educational provisions in the country.

5.5 Educational Provisions

Under the management of the Special Education Division, the following schools are made available for children and youth with disabilities:

- 13 segregated Special boarding basic schools for the Deaf
- 2 Segregated Special boarding basic schools for the blind
- 3 Units for the Blind
- 12 Segregated Special boarding schools for the Intellectually Challenged
- 23 Units for Intellectually Challenged (GTZ support)

- 3 Segregated Special boarding Secondary/Technical/Vocational Schools for the Deaf
- 4 Integrated Senior Secondary Schools for the Blind
- 3 Integrated Teacher Training Colleges for students with disability.

In all these institutions, the total enrolment of pupils/students is 5,092 made of 3,004 boys and 2,088 girls as shown in table 3 below.

Table 14: Enrolment Data at various education Levels

Enrolment	Male	Female	Total
Basic level	2006	1492	3,498
Second Cycle level	148	66	214
Teacher Training College	26	15	41
Tech./Voc.	181	114	293
Special Class	643	401	1044
TOTAL	3,004	2,088	5,092

5.6 Target Regions/Districts and Schools

At the beginning of 2003/2004 Academic year, the Division selected 35 schools from 10 District Education Directorates of 3 regions – Greater Accra, Central and Eastern for the piloting of Inclusive Education practice.

5.7 Appointment of Resource Teachers

In order to implement the pilot schemes successfully, 2 Special Education teachers have been appointed for each of the 10 districts involved in the implementation. They were assigned to work with the District Directorates and Special Education Officers (DSPEOs) working for children with disabilities and other special needs.

5.8 Sensitization and Orientation on Inclusive Education

Since inclusive education practice is relatively new and evolving, the Division organized sensitization and orientation seminars on inclusive education for District Directors, the four frontline Assistant Directors and all teachers in the target districts and schools.

Over 1,000 parents and guardians of all children in the target schools have also been sensitized and orientated on inclusive education for their supports.

5.9 Production of Screening Manual

In an attempt to identify children with sensory impairment and disabilities in the school of target districts, Manuals on step by step procedures for basic screening have been developed. These Screener's Manuals with other basic screening tools are kept in the districts for periodic screening activities in the schools.

5.10 Screening Teams

At least 9 personnel comprising the District Special Education Officer, Teachers, a Circuit Supervisor and a Nurse drawn from the 10 implementing districts were taken through the Screener's Manual at Ajumako in March 2006. At the end of the training in basic screening techniques, they were equipped with basic tools to help them undertake screening activities in the schools.

5.10.1 Screening of Children

From May to July 2006, the screening Teams worked hard to screen all children in the selected schools. In all 14,596 pupils were screened. Out of the number, 2000 failed the screening tests for visual, hearing and intellectual problems. They are to be referred for more intensive diagnostic assessment in the National Assessment and Resources Centre in Achimota.

5.11 Clinical Assessment of Pupils in Target Schools

Out of 14,596 pupils in 35 schools for impairment, 2000 failed the screening test. Out of the number 2000, 101 were clinically assessed for intellectual disabilities and 375 were assessed for hearing impairment. The assessment results and recommendations are to inform classroom teachers, resource teachers, heads of schools and parents about strategies they can use to manage children with special education needs.

5.12 Educational Assessment for Management of Special Needs

With support from USAID under the EQUALL/SEN project, the Special Education Division has developed educational assessment tools to be used in Ghana. The Ghana Achievement Test (GAT) can be used to identify children with disabilities, learning disabilities and other special needs among the school populace and those outside school. The GAT was used in three out of the five EQUALL/SEN target districts – West Gonja, New Juabeng and Ho Municipal.

The finalized test results are yet to be made available for study towards establishing their validity and reliability. The Ghana Achievement Test (GAT) tools will be used especially in inclusive education target districts for future programmes.

5.13 Integration of Children with Low vision and blindness

Alongside the implementation of inclusive education in the 10 districts, the Division is also creating access for children with visual impairment through 3 special schools selected to equip the children with skills acquisition in writing and reading Braille. After mastery of the skills within at most 2 years, these children are placed in mainstream schools nearby, where they are supported by special education resource teachers attached to the regular schools for their education.

5.14 Collaboration with Sight Savers International (SSI)

With support from SSI the Special Education Division is piloting Integrated Education Programme focusing only on children with low vision and blindness. The target districts are: Akwapim North in the Eastern region, Krachi West and Hohoe in the Volta Region.¹³ itinerant teachers who are special educators are equipped with motorbikes for daily visits to the target schools to support the children and teachers. By the close of the 2005/2006 academic year, there were 111 pupils on roll in ordinary schools under the two programmes-for the blind/low vision. Seventeen (17) resource teachers were on the program to deliver the needed support for the teachers and pupils (refer to Model 3 attached).

5.15 Establishment of Units

With support from GTZ, the Division has so far established 23 units – two-three classroom blocks within ordinary school – for creating access to education for children with intellectual disability. More of the units will be established across the regions.

5.16 Current Initiatives

Government has provided funds for the re-building of the National Assessment and Resource Centre at Achimota, building of ten (10) Regional Assessment Centres and purchasing of two Mobile Assessment Vans for early identification of children with disabilities and special education needs for intervention

5.16.1 Units for the low vision and the blind at special school

- Pupils with blindness and low vision are admitted to special schools for the Deaf.
- Pupils are in separate unit-classrooms to acquire skills in Braille writing and reading; Orientation and Mobility; acquisition of basic literacy and numeracy as transition to formal basic schooling; all for a maximum period of two years.
- Special Education teachers are appointed for the Unit with a head.
- Pupils after mastery of skills are admitted to mainstream basic schools near the special school.
- Special Education teachers are attached to the mainstream to support pupils and teachers.
- Pupils go home to join families on vacation.
- The head of the mainstream school assumes responsibility for all the children, disabled and non-disabled as well.
- Pupils with disability have full access to the curriculum.

5.16.2 Units for the Intellectually Disabled

- Two unit classrooms built within the premises of mainstream school.
- The unit is staffed with Special Education teachers
- Pupils with intellectual disability are admitted to the unit as day students.
- Pupils stay with their families at home and attend classes at the unit.
- Pupils with intellectual disability are taught on a separate curriculum drawn for them but they interact with their counter-parts to enhance social integration during subjects or activities like dancing, games and sports.

5.16.3 Inclusive Schools with Special Education Resource Teacher Support.

- A special education teacher is appointed as a resource Teacher.
- She/he is attached to 2 primary schools (mainstream).
- He/she becomes a member of the staff of the school.
- He/she works to identify all pupils experiencing difficulties in classroom and plan strategies for intervention.
- He/she supports pupils and teachers for quality teaching and learning.
- The head teacher assumes responsibility for all pupils including children with special needs.
- Resource Teacher collaborates with parents, staff of health services and social welfare.
- The District Special Education Officer Supervises and monitors activities of resource Teachers.

6.0 QUALITY

Quality education is essential to achieving the goals of the country (for example, middle income status by 2015 as stated in GPRS II) and is also essential for achieving the targets concerning access to education.

6.1 National Education Assessment (NEA)

The National Education Assessment (NEA) is an indicator of Ghana's education quality at the basic level. The minimum level of competency on the test implies achieving a score of 35%. The level required to achieve proficiency is 55%. The table below outlines the scores for 2005 and 2007. For each year, the first column reports the mean score of the students that wrote the test. The second column reports the percentage of students that achieved minimum competency. The third column reports the percentage of students that achieved proficiency.

As we can see from the table below, the mean score is just above the minimum competency level for P3 English, P3 Mathematics and P6 Math. The scores for P6 English are slightly better. Furthermore, between 2005 and 2007, there has been a decrease in the percentage of students achieving the minimum level of competency for P3 English and Math. The scores increased slightly for P6 English and P6 Math by 9% and 8.5% respectively. These increases demonstrate an improvement in learning at the P6 level. However, overall, the scores are still quite low. Usually, a country would hope that approximately 75% of children achieve the minimum level of competency but on average, the scores are well below that level. Furthermore, the percentage of students achieving proficiency is very low.

The fact that the scores decreased at the P3 level is most likely due to the significant increases in enrolment in recent years. This draws attention to the issue of ensuring that quality of education is maintained as access expands.

Table 15: NEA Scores 2005, 2007

	2005			2007		
	Mean	Minimum Competency	Proficiency	Mean	Minimum Competency	Proficiency
P3 English	38.1	50.5	16.4	37.6	50.1	15
P3 Math	36.6	47.2	18.6	35	42.6	14.6
P6 English	43.1	63.9	23.6	44.2	69.7	26.1
P6 Math	34.4	42.7	9.8	35.7	46.2	10.8

The NEA results for 2007 indicate that at P6 26.1% pupils achieve proficiency in English and 10.8% in mathematics. To understand the full implication of what this means for the education system, and more broadly for Ghana's social and economic development, it is necessary to join these percentages with the proportion of the school-age population who actually attain P6

6.2 School Education Assessment (SEA)

The SEA is an assessment intended for school-level diagnostic use. Designed as a multiple choice and constructed response exam, the assessment measures how well students can complete core objectives within the subjects of mathematics and English. Results of the SEA at the school level are not intended for comparison across schools and regions based on the student achievement scores. Rather, the assessment results highlight the areas of the curriculum (English and mathematics) that need to be taught in-depth. The results provide this information by reflecting student performance on specific items, which are tied to core objectives in the curriculum.

These results inform teachers and other educators at the school level where improvements in instructional delivery need to be made. Parents in each community can also be provided information through School Performance Appraisal Meetings (SPAM) by circuit supervisors on how their school performed on each of the assessments. The results of the SEA are meant to help teachers and school leaders improve the focus and content delivery in the classroom. The results are not intended to serve as an overall measure of student achievement.

These results are distinctly different from the NEA, which presents performance data comparable across districts and regions.

The results of the SEA lead to a series of important policy implications, including:

- The need to provide teachers with well written and well illustrated books for improved listening and reading comprehension.
- The need to provide teachers with manipulatives to better illustrate the concepts of maths.
- Workshops that are more focused on instructional practice (i.e. direct activities that can be used to improve how students learn and understand each objective within the curriculum) and require teachers to model behavior and practice.
- A clear need for additional instructional support in the classroom.
- Establishment of Communities of Practice.
- Instructional support personnel at the circuit or district level should visit teachers on a weekly or bi-weekly basis to follow-up on the integration of activities discussed and developed through the communities of practice.
- An increased focus on creating an opportunity to learn by ensuring the teacher is always present, the school is always open, the students are always present, materials are available and effectively used, and that students have increased instructional time on task.

7.0 CURRICULUM

7.1 Philosophy

The Pre-tertiary curriculum has undergone significant revision with a view towards eliminating the weaknesses associated with the structure and content of earlier Education Reforms. Its main objective is to make pre-tertiary education responsive to the challenges of education in the Twenty – first century and to also ensure that all learners get maximum benefit from the system.

The philosophy underlying our educational system which guided the review is the creation of a **well-balanced** (intellectually, spiritually, emotionally and physically) individual who has the requisite **knowledge, skills, values and aptitudes** for self-actualization and for the socio-economic and political transformation of the nation. The current curriculum has therefore, been structured to reflect the national development goals of **poverty alleviation and wealth creation**. The demands of other pressing socio-economic goals and the present and future educational needs of the country were also considered in the review.

7.2 Curriculum response to Inclusive Education

The 2007 revised pre-tertiary curriculum therefore puts greater emphasis on **critical and scientific thinking** as pre-conditions for developing the new type of Ghanaian who will become a problem-solver and be able to perform effectively in society.

The revised curriculum emphasizes the acquisition of higher-level thinking skills (**profile dimensions**) involving the ability to analyze issues, make good quality judgments and generate solutions to problems in the classroom and in the society. Currently, this forms the basis for teaching/learning and assessment in our schools, enabling the teacher to place emphasis on the various dimensions (i.e. Knowledge & Understanding, Application, Analysis, Synthesis and Evaluation)

Furthermore, the revised syllabuses emphasize participatory and problem-solving pedagogy and as much as possible, it de-emphasizes didactic pedagogy and rote learning approaches. Under the participatory approach, teachers are encouraged to use a mix of teaching methods within a lesson to ensure that the needs and expectations of every child is met. Didactic and rote learning approaches in themselves do not assist in prescribing solutions to the myriad of problems one encounters in life; neither do they help in building an intelligent and active citizenry.

It is equally important to state that curriculum overload especially at the basic level, has been reduced through subject integration, appropriate scoping and sequencing of content. Furthermore, this time table has been enriched and made more flexible to cater for the varying interests of learners. All these measures are intended to generate interest for learning among pupils and students, and to enhance their involvement as well as guarantee their retention and completion rates.

The adoption of ICT at the pre-tertiary levels of education and the integration of morals and values across all subjects for positive attitude-building in the youth will enable them fit adequately into the society as well as the ever-growing global economy.

The standards on curriculum outlined, are not attained in a vacuum hence the training of teachers in the effective use of the revised syllabuses to enable them understand the philosophy and principles which underpin the review. The training is also aimed at equipping teachers with the skills that will enable them interpret and use the syllabuses accurately for effective teaching and learning for the benefit of all categories of children. In addition, child-friendly Teaching/Learning Materials, Manuals and Teacher Guides by the Curriculum Research and Development Division (CRDD) of the Ministry are being developed to assist teaching and learning. In terms of curricular time, 156 instructional periods per class per year (i.e. 3 periods per week) has been allocated to learning reading from P. 1 to P.3 to enable learners to become more proficient in reading.

7.3 Teacher Education

The current national concept on inclusive education has injected new approaches into teaching and learning to ensure increased educational opportunities for all learners to be successful in their learning experiences. These includes the following:

7.3.1 Multigrade Teaching

The introduction of multigrade teaching in rural and small school communities has enabled disadvantaged children to have access to quality teaching. This new approach allows the school timetable and curriculum enough flexibility to address the needs of mixed ability children in a class under the instruction of one teacher.

7.3.2 Reflective teaching

The emphasis on reflective teaching in the classroom by teachers has enabled teachers to evaluate their actions during the teaching sessions and after lesson presentation. This approach is supporting many teachers to identify the varied talents in their classrooms for appropriate actions. Teachers now teach to address the challenges and unique situations that come up in between and after lessons. Teachers who reflect on their actions in class are dedicated, open – minded and ready to share their teaching experiences with colleagues.

7.3.3 Co-operative Learning

The introduction of cooperative learning in the classroom has enabled the teacher to take the centre stage of becoming an effective facilitator of learning. In this learning approach, the teacher recognises the diversity of talents in the class and plans for each group to fulfil their learning outcomes. Cooperative learning as a form of discovery learning has enabled inclusive education to survive in many school communities.

7.3.4 Creative Learning

This approach to learning about students and pupils is yielding good results as learners explore their own creative and imaginative talents to probe every new learning situation in class. Creative learning has been exhibited by students in project work and activity – based assignments. In this approach the teacher facilitates the learning process with less direction in order to enable learners achieve their learning outcomes.

Teacher education and training to meet the diverse expectations and needs of learners is very crucial. The following are some measures that could better equip teachers to perform well in the classroom.

7.3.5 Improved Reflective Teaching

It is important that pre-service training and education addresses some essential aspects of reflective teaching including content knowledge, curricular knowledge and pedagogic subject knowledge. These basic forms of knowledge would enable the teacher to be well – equipped to understand how children learn so that they can empathise with them. Again, teachers would be competent in subject knowledge and apply skills that would suit every learner.

7.4 Improved Curriculum Design, Content and Organisation

A flexible and well - integrated curriculum could enable teachers to plan well and teach to meet the needs of all learners. There is the need to have a national curriculum for learning but the framework of the curriculum should allow teachers who handle multigrade classes to re-organise the content of the curriculum to address new learning situations.

Teacher trainees should be taught how to use problem – based curriculum so that they can support learners to develop problem – solving and interpersonal skills to realise their potential.

7.5 Empowerment of teachers as facilitators of learning and agents of social change

There is the need to make teachers aware that they are facilitators of learning and agents of social change but not purveyors of knowledge. This empowerment would help teachers to support learners to be conscious and competent about what they learn, so as to ensure that their learning experiences provide opportunities to serve and build a knowledge society.

7.6 Provision of clear sense of diverse needs of learners

Teachers as facilitators of learning need to be taught to have a clear sense of diverse needs of learners so that they can plan lessons and assess learning outcomes with appropriate assessment approaches.

When teachers are equipped with the knowledge and skills to empathise with their learners, they can achieve equity for all learners and make them believe that they are capable of making a difference in their learning experiences.

7.7 Improvement on Learning Tasks

Teachers need to be proactive to adopt progress work and remedial work as means of making learning tasks more meaningful to address learners' needs.

7.8 Provision of Interactive and Collaborative learning environment for learners

Teachers need to be taught how and when to provide a participatory learning environment for learners so that they can develop and deepen their interactive and collaborative skills in the teaching and learning processes.

7.9 Use of Portfolio Assessment/Inquiry – Oriented Supervision

There is the need to help teachers know how to use portfolio assessment or inquiry – oriented supervision technique to appraise their performance in the classroom. This technique should enable teachers pay attention to lapses and shortfalls in their work especially in situations where the teacher has a class of diverse needs.

7.10 Use of Electronic teaching and learning approaches

Teacher professional development can be greatly enhanced through the establishment of a regional on-line teacher resource base and off-line network for teacher training institutions. Teacher training institutions can share teacher – developed education coursewares and innovative pedagogies. For instance, teacher – developed – lesson plans and other education teaching and learning materials could be shared by both pre – service teacher training and in – service continuing teacher professional development practitioners.

7.11 Science and Technology

Scientific and Technological advancement has shaped the modern world economy resulting in the emergence of the knowledge economy. Official government policy is for the nation to achieve a ratio of 60:40 sciences to humanities manpower base by the year 2020. The country appears to lack strategic forward planning to promote science and technology as a vehicle for economic development. There is no definite conscious effort to scientific and technological education. Science and Technology education is not responding adequately to development needs due to inadequate funding, poor management and obsolete pedagogical strategies. The linkage between the tertiary level courses and those offered at the SHS are not to the expected standard. Industries in Ghana are not adequately involved in the programmes developed in the Tertiary Institutions, thus creating a gap in the programmes offered in the institutions and the needs of industry. However, it is unclear whether the 60:40 ratio is the right policy. It is possible that Ghana has a comparative advantage in humanities or arts rather than the sciences.

Table 16: Sciences versus Arts at the Tertiary Level

		2003/04			2004/05		
		Science	Arts		Science	Arts	
Universities	Male	16,086	26,856	37.5%	18,442	29,613	38.4%
	Female	5,255	15,379	25.5%	7,154	18,199	28.2%
	Total	21,341	42,235	33.6%	25,596	47,812	34.9%
Polytechnics	Male	7,802	9,717	44.5%	10,344	7,794	57.0%
	Female	2,106	4,728	30.8%	4,693	2,152	68.6%
	Total	9,908	14,445	40.7%	15,037	9,946	60.2%
TOTAL	Male	23,888	36,573	39.5%	28,786	37,407	43.5%
	Female	7,361	20,107	26.8%	11,847	20,351	36.8%
	Total	31,249	56,680	35.5%	40,633	57,758	41.3%

		2005/06			2006/07		
		Science	Arts		Science	Arts	
Universities	Male	21,864	33,065	39.8%	24,788	33,310	42.7%
	Female	7,759	21,390	26.6%	8,607	21,740	28.4%
	Total	29,623	54,455	35.2%	33,395	55,050	37.8%
Polytechnics	Male	7,177	9,979	41.8%	7,424	12,805	36.7%
	Female	1,570	5,938	20.9%	1,713	6,753	20.2%
	Total	8,747	15,917	35.5%	9,137	19,558	31.8%
TOTAL	Male	29,041	43,044	40.3%	32,212	46,115	41.1%
	Female	9,329	27,328	25.4%	10,320	28,493	26.6%
	Total	38,370	70,372	35.3%	42,532	74,608	36.3%

The situation is even worse for private universities, which for the 2006/2007 academic year has the following enrolment ratios:

- 87.6% Humanities
- 12.4% Science and Technology

8.0 INFORMATION COMMUNICATION TECHNOLOGY (ICT)

ICT in Education is one of the cross-cutting strategic policy areas that impacts on a functional education delivery for development and a drive towards enhancement tripod of teaching, learning and management efficiency. Based on defined targets and strategies a number of achievements have been chalked.

8.1 Infrastructure & Logistics for Teaching and Learning

- Under the Ghana eSchools and Communities Initiative (GeSCI), the Ministry, in collaboration with the ORACLE and CISCO Consortia, the NEPAD eSchools Initiative has been implemented in six out of the ten regions in Ghana. Each of the schools has in place a Computer Laboratory with 25 computers, satellite internet connectivity and other state of the art equipment for eLearning. The schools are OLA Girls Secondary School in Ho, V/R; Wa Secondary School in Wa, UWR; St. Augustines Secondary at Bogoso WR; Akomadan Secondary School, Akomadan-ASH; Walewale Sec/Tech, Walewale, NR and Acherensua Secondary School, Acherensua, BA.

- Four hundred Desktop Computers were supplied to the thirty-eight Teacher Training Colleges early in 2007 under a Ghana National Commission for UNESCO Initiative.
- An online portal “SKOOOL.GH” and a DVD-based resource for teaching and Learning of Mathematics & Science for Junior and Senior High Schools have been developed in collaboration with INTEL Corporation. This was launched at the end of May 2008.
- As part of the Public Private Partnership policy some private vendors like eToys and More have collaborated with a number of private schools to establish over 80 eLearning centres across the country.
- ICT has been introduced as a subject in the curriculum at all levels of pre-tertiary education.
- New syllabuses for the Education Reforms 2007 were digitised and captured on Compact Disks and distributed to all Districts and Schools.

8.2 Management

- Policy Development: An ICT in Education Policy has been developed.
- A new website (www.moess.gov.gh) for the Ministry has been developed and posted on the internet.
- Supply of Desktop computers to all Divisional, Regional, District Directorates of Education under the EMIS Project.
- Provision of Laptop computers to all Divisional Directors of Education.
- All Divisional Directors and Unit Heads were trained in Computer Literacy for Management at the Ghana Institute for Management and Public Administration in 2007.
- The Ministry successfully hosted in May 2008, the **3rd International Conference on ICT for Development, Education and Training.**

8.3 Capacity Building

- One Hundred ICT tutors in thirty-eight Teacher Training Colleges were trained on how to integrate technology in the teaching/learning process under the Microsoft's Partners in Learning (PIL) Programme.
- Fourteen staff and personnel from the Curriculum Research and Development Division of the Ghana Education Service and from the University of Cape Coast & University of Education Winneba were trained in Digital Curriculum/Content Development.
- Fifty Primary & JSS teachers have been trained in the use of ICTs in teaching & learning under the UNESCO ASP Net Programme.
- Two hundred teachers selected from all regions and all pre-tertiary levels underwent a train the trainer workshop as part of a special MoESS/Microsoft/UEW collaboration.
- Led by the ICT in Education Programmes Unit, over 550 ICT teachers in Senior High schools and 50 Inspectors were trained in September/October 2007 at the start of the 2007 Education Reforms.

9.0 CONCLUSION

LIST OF TABLES

Table 1	:	Trend of Enrolment Ratio and Gender Parity Level (GPL) at National level (Basic level).....	13
Table 2	:	Gender Parity Index (Basic Level).....	13
Table 3	:	Actual Enrolment Figures (Basic Level).....	13
Table 4	:	Disaggregated by Gender.....	13
Table 5	:	Number of Kindergarten Schools.....	14
Table 6	:	Kindergarten Enrolment Trends.....	14
Table 7	:	Number of Primary Schools.....	15
Table 8	:	Enrolment at Primary School.....	15
Table 9	:	Number of Junior High Schools.....	15
Table 10	:	Enrolment in the Junior High School.....	16
Table 11	:	Number of Senior High Schools.....	16
Table 12	:	Enrolment in Senior High School.....	17
Table 13	:	Enrolment in Tertiary Institutions.....	18
Table 14	:	Enrolment Date at various Evaluation Levels.....	26
Table 15	:	NEA Scores, 2005, 2007.....	32
Table 16	:	Science versus Arts at the Tertiary Level.....	39