

BASIC EDUCATION IN GHANA IN THE POST-REFORM PERIOD

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ABSTRACT

This paper reviews the first stage of the skill acquisition process in Ghana, i.e. basic education. Basic education provides the essential building blocks to continue to higher levels of education. For those who do not continue to higher education it provides the foundation upon which work-related skills are developed.

Two criteria are used in this paper to assess the performance of the basic education sub-sector. The first is progress that has been made in expanding access to basic education. This criterion on its own is not sufficient to pronounce a verdict on the success or otherwise of an education programme in improving upon the stock of a country's human capital. Focus on this criterion alone assumes that as the basic education system expands standards are automatically maintained. However a rapid expansion of education in terms of numbers enrolled can be at the expense of the quality of education. The second criterion the study uses to assess performance of the basic education sector is the extent to which the sector has succeeded in equipping its graduates with the relevant skills to enter the world of work or else to continue to higher levels of education.

Although there has been an increase in the absolute numbers enrolled at the basic education level there has been no significant increase in gross enrolment rates. Gender gaps in enrolment still exist.

The quality of education in the public school system as measured by the performance of pupils in the Criterion Referenced Tests organised by the Ministry of Education is low. The poor test results raise questions about efficiency in the use of the sector's resources.

A reduction in the private cost of education will encourage an increase in enrolment rates. In addition an improvement in the quality of education is critical to an improvement in enrolment rates.

Additional financial resources are but one of the many needs of the basic education sector in Ghana. A review of the curriculum, teaching methods and practices, teacher supervision and incentives for teachers is required in order to achieve an efficient use of the sector's financial resources. The lack of a positive link between government education spending and performance of the sector shows quite clearly that pumping resources into the sector is not sufficient to solve the problems the sector faces. What is critical is how the resources going into the sector are managed, monitored and utilised.

Improving upon the quality of education requires in addition an effective monitoring system. The BECE provides an excellent opportunity to monitor the output of the basic education system. However the choice of the Stanine system for marking has made it impossible to utilise the examination for this purpose. It is recommended that the marking system of the BECE be reviewed so that the examination can be used for monitoring purposes.

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1. Introduction

"...we must look to industry and agriculture to provide an increased standard of living, but these two sectors of the economy are dependent on an adequate supply of suitably educated and trained manpower... Economic growth does not consist merely in the expansion of aggregate production, it consists in the expansion of output per head and therefore it necessarily entails an increase in productivity per head. Without such an increase in productivity the population may grow and with it the national income, but the level of prosperity cannot increase. Rising productivity derives from two sources. On the one hand it is influenced by the kinds of capital ...with which the population is supplied. On the other hand it depends upon the skill with which labour and management use these capital assets. Contemporary experience suggests that the latter is every bit as important as the former in determining the level of economic development in a country'.

This quotation is not taken from Ghana's Vision 2020 document published in the early 1990s or from policy documents of present day middle-income countries whose performance Ghana wishes to emulate. It is taken from the first paragraph of the chapter on education of the Seven-Year Development Plan for Ghana for the period 1963/64-1969/70. For the architects of the plan, human capital formation was recognised as critical to the growth and development process. The sentiments expressed in the paragraph are even more pertinent to Ghana today.

Knowledge and technology are increasingly becoming the basis of competitive advantage in the present world economy. The quality of a country's stock of human capital influences the extent to which knowledge and technology can be utilised and created to enhance productivity and increase the well-being of citizens. Lall (1992) defines human capital as "not just the skills generated by formal education and training, but also those created by on-the-job training and the experience of technological activity and the legacy of inherited skills, attitudes and abilities..." (p. 170). A not insignificant proportion of the knowledge base and skills of the work force in Ghana is tradition bound. If the competitiveness of Ghana in the world economy is to improve, the knowledge base, techniques of production and skills of the work force must be broadened beyond the confines of inherited skills, attitudes and abilities. Formal education is an important part of the skill acquisition process and development of the stock of human capital. It contributes to the process of moulding attitudinal skills and developing technical skills. Education increases the ability to understand and critique new ideas. It facilitates the adoption and/or modification of technology. For example in agriculture if modern farming practices are to be adopted and effectively implemented, farmers must be able to read instructions on how to use the new inputs.

Empirical studies using data from several countries have been conducted to investigate the determinants of growth and have included a proxy for human capital. The results are inconclusive. Ojo and Oshikoya (1995) conducted a study on determinants of long-term growth using a panel data set of 17 African countries. The measures of human capital used in the study were the primary and secondary enrolment rates, literacy rates and

average years of education. The primary and secondary school enrolment rates were not significant explanatory variables in the growth equation, whereas the literacy rate and average years of education variables were. A problem with these proxies of human capital is that they are an imprecise measure of skill acquisition and provide no indication whether the graduates of the educational institutions possess the skills required by the productive sectors of the economy. In addition the measures do not capture variations in the quality of education across countries and over time. There is less ambiguity when individual or household level data is used. Data from the third household survey conducted in Ghana in 1991/92 shows that the incidence of poverty amongst households declines the more educated is the household head (Figure 1). This suggests that education can be the route out of poverty. Education provides opportunities for involvement in activities with high returns. In addition, evidence from Ghana and other developing countries shows the children of educated mothers are more likely to have

Figure 1.

Note: The poverty rate is the proportion of households that fall below the poverty line. The poverty line is defined as two thirds of the mean real household consumption expenditure per capita in 1987.

Source: Calculated from the third Household Survey, 1991/92

better levels of nutrition than children of uneducated mothers (Glewwe, 1999). Infant mortality rates amongst educated mothers is lower (Strauss and Duncan, 1996).

Education therefore confers on women household heads the knowledge to manage household resources efficiently.

This paper is the first in a series that will review the skill acquisition process in Ghana. Basic education provides the essential building blocks to continue to higher levels of education. For those who do not continue to higher education it provides the foundation upon which work-related skills are developed. Thus the review of the skill acquisition process in Ghana will understandably begin by an assessment of the performance of the basic education sector since the start of the education sector reforms in 1987.

Two criteria will be used to assess the performance of the basic education sub-sector. The first is progress that has been made in expanding access to basic education. This criterion on its own is not sufficient to pronounce a verdict on the success or otherwise of an education programme in improving upon the stock of a country's human capital. Focus on this criterion alone assumes that the basic education system is able to maintain standards as the numbers enrolled increases. However a rapid expansion of education in terms of numbers of enrolled can be at the expense of the quality of education. The second criterion that this study will use to assess performance of the basic education sector is therefore the extent to which the sector has succeeded in equipping its graduates with the relevant skills to enter the world of work or else to continue to higher levels of education.

A comparative approach will be adopted by comparing trends in education indicators with what pertains in other African countries and with what pertained three decades ago in some Asian economies. The current objective of economic policy is for to Ghana attain middle-income country status by the year 2020. The Asian countries that have made the transition from low to middle income country status have been chosen as role models. It is the consensus of observers of the transition process in these economies that accumulation of human capital was an important part of the process. What can be learnt from the experiences of these countries?

The next section will present a brief discussion of developments in basic education prior to 1987. The education reforms of 1987 and subsequent developments in basic education policy will be the subject of sections 3 and 4. Section 5 will examine the outcomes and section 6 concludes the paper.

2. The Education Sector Prior to the 1987 Reforms

The average number of years of formal schooling of Ghanaians has improved in the period since independence. Information obtained from the national household survey conducted in 1991/92 finds that whilst the average years of schooling of persons aged over 64 was about 1.2 years, the average for those aged between 44 and 53 years was 3.7 years. It rose to 6.7 years for persons aged between 25 and 33 years (Table 1). The increase in average years of education from older to younger generations occurs for both men and women even though women still lag behind men

(Table 1). The education policies, trends in the economy and changes in circumstances of households can explain the developments that have occurred over the last five or so decades.

Table 1 Average Years of Education attained by Age Cohorts (1991/92)

Age (Years)	Both Sexes		Men		Women	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
25-33	6.68	5.39	8.60	5.16	5.35	5.14
34-43	5.76	5.52	7.8	5.50	4.35	5.12
44-53	3.75	5.32	6.04	5.93	2.02	4.02
54-63	2.53	4.69	3.76	5.24	1.18	3.55
64 and over	1.21	3.16	2.04	4.00	0.44	1.81

Source: Estimated from Third Household Survey, 1991/92.

Tuition-free primary and middle school education was introduced in 1952. The Education Act of 1961 declared primary education to be compulsory and a parent not sending a child to school was liable to a fine. The Act also made provision for the establishment of private educational institutions. The Act delineated the responsibilities of central and local governments regarding the financing of education. Central government was to be responsible for teachers' salaries. The building, equipment and maintenance of all public primary and middle schools were made the responsibility of the local authorities. In 1963 the school textbooks scheme was introduced. Pupils were required to pay a token fee.

The effect of the Education Act on enrolment was dramatic. Enrolment in public primary and secondary schools more than doubled between 1960/61 and 1964/65 (Table 2). This period saw the fastest increase in school enrolment in the country's post-independence history. Children long past the normal school entry age of 6 entered primary school in response to the policy of tuition free primary education and children who had dropped out of school were able to re-enter at the point where they had left. The numbers enrolled in primary 1 more than doubled between 1960/61 and 1961/62 (Table 2). Gains were made in the enrolment of girls. There was a rapid increase in the proportion of girls in primary school between 1960/61 and 1964/65. The proportion of girls in middle and secondary school also increased but the rise was not as rapid as in primary school (Table 2).

The rapid expansion in enrolment rates was not maintained and a decline in actual numbers enrolled in primary school began in the 1965/66 academic year until 1972/73 when they began to

rise again (Table 2). Enrolments in primary 1 declined in 1964. The decline in enrolment rates has been attributed to the reversal to normal trends after the surge in enrolments when the policy of tuition free primary education was introduced. The introduction of textbook fees and growing unemployment amongst middle school leavers may also explain the drop in enrolment rates during this period. The gross enrolment rate (GER) in 1970 was estimated at 62% at the primary school level. The GER continued to increase during the 1970s so that by 1980 it stood at 80%.

There was a rapid increase in the establishment of school facilities to absorb the increase in enrolments. The number of public primary schools increased from 3514 in 1960/61 to 6884 in 1962/63 and to 8144 in 1965/66 (Ministry of Education 1968). Many of these, however, were makeshift. In the seven-year plan special emphasis was placed on the expansion of secondary and technical schools to provide the necessary manpower to supply the needs of a modern economy.

Table 2 Enrolment in Public Institutions in the 1960s

	Primary			Middle		Secondary	
	Enrolment in Primary 1	Total	% Girls	Total	% Girls	Total	% Girls
1960/61	106928	441136	36.16	145337	30.12	16577	22.04
1961/62	231784	691770	42.77	184292	30.75	19062	23.33
1962/63	264560	806211	39.94	204935	30.86	23891	23.44
1963/64	253693	871385	41.10	208625	32.72	27663	22.95
1964/65	274500	1065251	43.43	257625	33.04	33131	24.76
1965/66	272077	1137495	43.80	267434	32.52	42111	25.81
1966/67	221559	1116843	44.38	280566	33.33	42280	25.43
1967/68	214115	1072523	44.53	329679	35.33	43889	25.74
1968/69	199263	1015457	44.43	381569	36.75	46512	25.88
1969/70		975629		424430		46213	

Source: Ministry of Education

Although there was an increase in the numbers enrolled in school and in the gross enrolment rate there was a concern about the quality of the output of the education sector. A UNESCO report on education in Ghana published in 1970 had this to say: "Generally Ghana's education services are not producing the kinds of quality manpower needed by the economy. The educational system is not providing an adequate base in English and Mathematics and offers little exposure to practical

work " (UNESCO, 1970 p. 21). It went on to state that "...the first problem is the poor quality of basic education in primary and middle schools, especially in the main educational language, English, ..." (UNESCO 1970p. 34). The rapid expansion of enrolment in a very short period of time was thus, to some extent, at the expense of the quality of education.

Quality was compromised because there was inadequate supply of critical inputs to support the increase in enrolments. The supply of trained teachers could not keep up with the expansion in enrolments and schools. To meet the demand for teachers, untrained teachers were added to the staff. In 1962 trained teachers made up 52% of the teaching staff in primary schools and middle schools. By 1966/67 they are estimated to have declined to 28% of the teaching staff in primary schools (Ministry of Education 1968). There was an increase in the supply of trained teachers in primary schools thereafter so that in 1969/70 their share had risen to 49%. A similar problem existed in the secondary school system although it was not as severe as at the primary level. There was a small drop in the share of graduate teachers in the secondary schools from 57% of the teaching staff in 1961/62 to 54.3% in 1969/70.

To get round the constraint of insufficient physical infrastructure to accommodate the rising enrolments, a two-shift system was introduced. A shortcoming of this system is that it can effectively place an upper limit on the number of contact hours in a day between pupil and teacher. The subsidised textbook scheme ran into financial difficulties as the number of pupils increased. To deal with the problem of financing the scheme it was decided in 1968 to limit the number of titles supplied to English Readers and Mathematics.

The experience of the rapid expansion in education enrolments in the 1960s provided a lesson for future policy makers. It was that an increase in the opportunity to attend school did not automatically translate into an equal opportunity to access the same quality or standards across the country and over time. Prior to the implementation of a policy of expansion in education it must be ensured that the necessary inputs are available to guarantee that quality will not be compromised in the process.

The education system introduced during the colonial period required that students spent at least 8-10 years before they could enter secondary school. In the Seven-Year Development Plan concerns were expressed about the length of time it took to complete secondary school. To address this issue it was proposed that children be selected to secondary school after six years of primary education. The middle school system was to be replaced by continuous schools that would offer courses of a vocational nature. Some continuous schools were established but no significant changes were made to the primary and middle school system.

A new educational system was proposed in the Five-Year Development Plan for the period 1975/76-1979/80. It aimed at reducing by four years the length of time taken by the average child from elementary school to the end of secondary school. It also aimed at introducing a curriculum with a large practical content aimed at equipping the individual with skills relevant to the needs of the country. The new education system was to be implemented in September of 1974. In this new system the middle school was to be phased out by 1982-83 academic year and replaced by the Junior Secondary School (See Appendix 1 for details of the education system that was proposed). Implementation of the new education system, however, did not move beyond

the phase of pilot schemes.

The education sector entered a crisis phase in the 1980s with the GER declining to about 70% in 1986. The sector suffered from a decline in the supply of teachers as teachers left the sector and country to find more remunerative employment elsewhere. There were shortfalls in the supply of learning and teaching materials and a failure to maintain the physical infrastructure in schools. Real per capita incomes had been falling in the late 1970s and early 1980s and as households faced hardship a response was to withdraw children from school. The education reforms of 1987 were introduced within the context of the crisis in the sector.

3. The Education Reforms

The public sector is the main provider of education at the primary and tertiary level. At the secondary level, although most of the senior secondary schools are public schools, the vocational schools sub-sector is dominated by the private sector.

The structure of the education system before the reforms was such that to complete pre-university education could take between 13 and 15 years. This variation in the number of minimum years was because there was essentially a three-track system in place. Children who managed to complete primary schooling could take the middle school track and end their education after completing four years of middle school. It was possible to skip middle school and enter secondary school after sitting the common entrance examination in primary 6. The alternative was to do one or two years at middle school before sitting for the entrance examination to secondary school. The reforms replaced the three-track system with a one-track system. All children are expected to go through a minimum of nine years of education, i.e. six years of primary and three years of junior secondary education. They can either enter the world of work or continue to the secondary level (See Figure 2).

Figure 2. Structure of the Education System.

Pre-School

Primary

Junior Secondary

Senior Secondary Technical /Vocational

University Training Institutes Specialised Institutes Polytechnics

Ghana presently has a 6-3-3-4 education system. Pre-school is not compulsory. Children are expected to enter the first year of primary school at age 6. The first nine years that make up basic education consists of primary education of 6 years and 3 years of junior secondary school. Basic education is supposed to be compulsory for all children of the relevant age group. Unfortunately as this study will show universal primary education has still to be achieved in Ghana. An official selection process occurs at the end of the ninth year of basic education when all pupils take the Basic Education Certificate Examination (BECE). Individuals who want to continue their formal education have the option of attending senior secondary schools, technical schools or vocational schools (Figure 2).

The reforms began in 1987 with the intake of the first set of Junior Secondary School entrants. The senior secondary school system began in 1990 and the first examination was taken in 1993. The middle school system was phased out in 1989 when the last set took the middle school leaving certificate. The 'O' and 'A' level systems were phased out in 1994 and 1996 respectively.

Prior to the reforms some teacher training took place at the secondary level. Graduates from the middle schools were able to enter teacher training colleges and obtain a Certificate A. Specialist courses were available at the post-secondary level for secondary school graduates. The technical institutes also had placements for middle school certificate holders. The secondary school system has changed with the reforms. It has two components. The first is the senior secondary schools that provide 3 years of general academic education after which an external examination is taken. Passing this examination with the necessary grades qualifies entry into the tertiary level institutions. The second component is made up of the vocational and technical schools. Graduates of the technical and vocational institutions usually terminate their formal education at this level and enter the world of work or can continue at the polytechnics.

The tertiary level education comprises of the training colleges, polytechnics, universities and specialised institutes of journalism and of professional studies. The 1991 White Paper on tertiary reforms had as one of its objectives the establishment of an integrated tertiary education system comprising all post-secondary pre-service training institutions under the general supervision, direction and control of the Ministry of Education. This has not happened. The National Council

for Tertiary Education was established in 1993 to be responsible for the tertiary level education. The polytechnics were upgraded to tertiary status in 1992. They still however continue to provide non-tertiary programmes. The Regional Colleges of Applied Arts, Sciences and Technology (RECAAST) proposed in t