The Gap in Reading and Mathematics Achievement between Basic Public Schools and Private Schools in Two Administrative Regions of Ghana: Where to Look for the Causes

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Abstract

Enrolment in basic education has made significant progress in Ghana but learning achievements appear to have stagnated in the last couple of years. In this study, interviews with teachers, head teachers, past and current students in basic schools, involved parents and community leaders in these four selected districts conducted to gauge their views on the source of the problems suggest the need to match enrolment with four core issues in mind: a) better-managed and properly supervised schools, b) ensuring high level of teacher motivation, c) a level playing field in resource allocation in the areas of availability of teaching-learning materials, and controlling variability in school infrastructure, d) addressing pressure on public expenditure due to population increase. The findings suggest basic education will require new resources, including public-private partnership. Improving student achievement will also require that new resources are allocated in new ways not just simply based on the rural-urban divide but also ensuring that learning actually takes place whether urban or rural.

Keywords: basic education enrolment, public investment, learning achievement in maths and science

Introduction

'Ghana is endowed with a good education system' a statement once made by BBC News monitoring Department. Can this statement still hold within the context of increasing evidence that public basic school achievement in Ghana is not as it used to be? Indeed, there is a global awareness of the substantial gap in educational achievement between pupils/students from higher socioeconomic status and those not so endowed. The case presented by those who stress the link between social class and socioeconomic status on one hand with educational achievement on the other, make the claim that students/pupils with good family resources out-perform those who come from poorer backgrounds and this occurs in all developed as well as developing societies. Benn and Miller (2006) writing of the future of education in Britain had this to say: 'One of the biggest problems facing British schools is the gap between rich and poor, and the enormous disparity in children's home backgrounds and the social and cultural capital they bring to the education table' (p.23). In a 2009 report conducted in Ghana on the review of basic education quality, there were larger variations in pupils' performance on National Examination Assessment (NEA) English scores across the ten regions. For example, pupils in Primary 6 in the Greater Accra region scored between 8.8 and 15.0 points more than their counterparts in the other nine regions. Similarly, pupils in the Ashanti region scored between 2 and 6 points greater than pupils in the other eight regions (Mitchell Group, 2009). This is because the Greater Accra and the Ashanti regions of Ghana have comparatively better resourced and better trained teachers than most of the other regions.

According to a recent OECD volume, research on learning yields a number of conclusions and "The first and most solidly based finding is that the largest source of variation in student learning is attributable to differences in what students bring to school" (OECD 2005, p. 2). Despite its support for "accountability based programmes" the US Office of Education, having reviewed the international evidence, admitted that it was clear that "Most participating countries do not differ significantly from the United States in terms of the strength of relationship between socioeconomic status and literacy in any subject" (Lemke et al, p. 35).

Thus when children attend schools which are widely different in social class composition, the gaps between the achievements of schools mirror closely the gaps between the social classes which predominate in them. Based on his research in New Zealand (and consistent with many overseas studies) Richard Harker has claimed that "anywhere between 70-80% of the between schools variance is due to the student 'mix' which means that only between 20% and 30% is attributable to the schools themselves" (Harker 1995, p.74) .

Variances in home backgrounds, school resources, and socioeconomic status, therefore, continue to be overriding factors explaining differences in students' school achievement. Children from more endowed socio-economic status in Ghana are more likely to attend better and well-resourced private basic schools than those not so fortunate.

Based on this perceived variability in resources as one of the determining factors of the gap in reading and mathematics achievement, this study examines the reported first signs of achievement gap in the first decade of this millennium in Ghana and attempt to track this report with the early 1960's, 1970's and the 1980's of Ghana's basic education system. These periods of the last five or so decades is important because even though throughout these periods, there is paucity- in fact-lack of National Assessment of Educational Progress and scientific research studies, there are indications that the then basic public schools achievement was comparatively better than the then basic private schools commonly referred to at the time as 'international schools'. Many brilliant pupils who either completed the then public schools at standard seven (Middle school Form Four) or passed the then Common Entrance Examination at Standard two or three to enter secondary schools in the mid 1960's, 1970's and the 1980's generally outperformed their counterparts from the then so-called 'international schools' (private basic schools) in both linguistic comprehension, mathematics and science, irrespective of social class or socioeconomic backgrounds at the time. Most pupils who performed better in the secondary schools were not as endowed as those who were in the then urban international schools.

Thus, the paradigmatic shift whereby private basic schools in Ghana began to perform better in reading and mathematics achievement than the Government sponsored public schools may be traced back to the beginning of the mid 1980. It is important to understand the causes of this shift. Empirical studies on achievement gap for the last two decades globally point to the link between educational achievement and socioeconomic factors. In most developing communities for example, low functional literacy among individuals who have completed primary school is not uncommon. UNSECO (2005) reports that in 2000 more than one in three adults with a fifth-grade education in Chad and Niger reported that they could not read. In other cases, individuals may finish primary school, yet reading is below the expected level. In Ghanaian public schools, a representative sample of reading achievement levels measured by the government-administered Criterion Referenced Test in 2000 indicated that fewer than10% of the children in grade six of public schools were able to read with grade level mastery (Lipson & Wixson, 2004).How then do we explain the sudden shift of poor performance in the public basic schools compared to the private ones in the last three decades, given the fact that public basic schools are better resourced now than they used to be?

Statement of Problem

Lack of advancement in achievement in Ghanaian public basic schools is conspicuous when compared with the level of resources invested from both domestic and donor sources to date. For example, a total of US$1 billion was spent on the education sector in 2006 (Thompson & Casely-Hayford, 2008). The predominately supply-driven improvements have not sparked a corresponding leap in achievement for public school students. In addition, the private school system consistently outperforms the public schools. Ghana continues to draw much attention from western donor community as a politically stable, democratic nation with comparatively longer history of respectable educational institutions including universities in Sub-Sahara Africa. All this notwithstanding, within the last decade, Ghana continues to perform significantly below other African nations in cross-national comparisons. For example, in the Trends in International Maths and Science Study (TIMSS) 2003, Ghana's scores fell well below all of the others that took part in the assessment, including South Africa, Botswana, Morocco, Tunisia, and Egypt. In TIMSS 2007, Ghana's scores were also among the lowest, behind Algeria, Botswana, Egypt, and Tunisia as well as falling short of the scores of countries at similar income levels in other regions, as well as the upper and middle income countries that participated (Mitchell Group, 2009).

In addition, between 2003 and 2006 the Gross Enrolment Rate in Ghana increased from 87 to 94% in the primary schools and the junior high school enrolment rate from 73 – 77%. The completion rate of primary school is currently 85% and the completion rate in Junior High School (JHS) is 65%. These are significant accomplishments in relation to the 2003– 2015 Education Sector Plan, yet this enrolment does not match with achievement for which reason this plan is scheduled to be replaced with a new plan which would guide Ghana's Education Sector from 2010 to 2020 (ibid).

Given this scenario of poor mathematics and science performance in Ghanaian public basic school, vis-à-vis the mismatch between performance and public investment as well as the historical antecedent of better performance of our public school system in the 1960's through to the mid 1980's, this study investigated where to look for the causes and what in fact accounts for the low level of achievement across public basic school in Ghana since the last decade.

Purpose of the Study

The purpose of this paper is to examine what accounts for the low level of achievement across public schools in Ghana given the high level of human and physical resources in the last two decades as compared to the then poorly resourced public schools in the early 1960's-1980. For example, government has increased funding for teaching and learning materials such as textbooks in recent years. In addition, in terms of quality of teachers, since the 1987 Educational Reform, which ushered in the Junior Secondary School concept, all untrained teachers in the public schools were either asked to upgrade their skills or leave the system. This implies that in terms of teacher quality, public school systems in the last two decades have comparative advantage over the then public schools in the 1960-1980 as well as the private school system.

Based on the above, the paper discusses the link between the increasing enrolment in public basic schools and achievement. It also investigates what accounts for the low level of performance in science and mathematics in Ghanaian basic public schools by international comparison and the extent to which variability in resources both physical and human explain the differences in mathematics and science across schools.

Research Questions

The following four questions guided this research paper:

1) How does the increase in enrolment in Ghanaian basic schools match with achievement?
2) What accounts for the low level of achievement across public basic schools in Ghana?
3) To what extent does variability in human and physical resources explain differences across schools?
4) What accounts for the comparatively better performance of public basic schools in the old education system which had many untrained teachers compared to the new system?

Significance of the Study

Given the reported mismatch between increase in enrolment and achievement as evident with international comparisons in mathematics and science, as well as the incongruity between investment and accrued dividends of Ghanaian public basic schools, the findings of this paper will be significant to the Ghana Ministry of Education, the Ghana Education Service, social and educational policy makers, basic school teachers, parents and all other stakeholders in education. Besides, findings of this research will contribute to the already existing literature on basic school performance in Ghana. The general trends in the data will help to point towards which areas in basic education there is the need for devoting more funding and to utilizing current available resources more efficiently.

Literature Review

The Ghanaian Government, like all other stakeholders in Education recognises high quality basic education as critical since it enhances the development of the individual in society (Government of Ghana, 2004; Ministry of Education, 1951, 1987a, UNESCO (2005). Other Ghanaian scholars over the years have also underscored how essential basic education is to the development of the human capital of the nation (Akyeampong, 2007; Anamuah-Mensah, Koomson, &Godwyll, 1996; Banya, 1993; Foster, 1965; Godwyll, 2008; McWilliam&Kwamena-Poh, 1975). To promote quality education and resolve the poor academic achievement of students from rural basic schools, the Government, through its Ministry of Education and the Ghana Education Service (GES), implemented series of education reform schemes.

Notable among these were the 1987 education reform (Ministry of Education, 1987b) to improve access to basic and secondary education, and the introduction in 1996 of the Free Compulsory Universal Basic Education (FCUBE) policy to address access to education and quality concerns in basic education (Ministry of Education, 1996; Ministry of Education Science and Sports, 2007a; 2007b).

In spite of these educational reforms, Ghana's deprived rural basic schools regularly fail to produce knowledgeable graduates, capable of pursuing further education (Akyeampong, 2007; Donge, 2003; Karikari-Ababio, 2003; Nsowah, 2003). There is evidence of declining academic performance.

For example, in 2011, over 40% of candidates who sat for the BECE (Basic Education Certificate Examination) failed the examination and could not gain placement in any of the second cycle institutions, representing a below average performance. Enrolment rates have however increased at the basic level. This clearly shows a gain in access without any corresponding action to improve learning (cf. Myjoyonline News, 2012, p. 1). As mentioned in the introduction, within the last decade, Ghana continues to perform significantly below other African nations in cross-national comparisons in the Trends in International Maths and Science Study (TIMSS) 2003(Mitchell Group, 2009).

A 2008 Ghana News Agency Report had this to say: 'Five Junior High Schools in the Twifo-Hemang-Lower-Denkyira District in the Central Region (of Ghana) scored zero percent in the 2008 Basic Education Certificate Examination (BECE). Mr. Samuel Agyeibie-Kessie, the District Chief Executive, disclosed this at the assembly's general meeting at TwifoPraso on Friday' (Ghana News Agency, 2008).

Thus, the zero per cent score above refers to the fact that no individual student from the schools mentioned had an aggregate score of 30 or lower in the six core and elective subjects at the BECE (http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=1494&context=theses.) There are other unreported cases in the other deprived rural areas of Ghana. The Ministry of Education in Ghana, recognising the seriousness of the poor performances in our public basic schools despite the numerous interventions by government, puts it this way: 'Despite the numerous interventions to improve education, achievement levels of school children, especially at the basic level, were low. The results of public schools in the Criterion Reference Tests (CRTs) conducted from 1992 to 1997 in English and Mathematics indicated an extremely low level of achievement in these subjects'. (Ministry of Education Science and Sports, 2007b, p. 3).

Research Methodology

Sample and Design

This study used the purposive sampling design from an estimated two hundred and forty (240) respondents drawn from two (2) out of the ten (10) administrative regions of Ghana: Ashanti: one hundred and twenty (120) respondents and Brong Ahafo: one hundred and twenty (120) from the following categories of respondents: Junior High School Head teachers/principals: forty (40) from both high performing and low performing schools; Junior High School teachers: forty (40) from both high performing and low performing schools; current Junior High School students: forty (40)from both high performing and low performing schools; Junior High School graduates: forty (40) from both high performing and low performing schools; involved parents: forty (40) from both high performing and low performing schools and community and opinion leaders: forty (40) from both high performing and low performing schools. In all four (4) Junior High schools were purposively selected as case study from the two regions: two schools from Ashanti, one high performing JHS from the Kumasi metropolis and one low-performing JHS from the Offinso South Municipality. In the Brong Ahafo region, two JHS were selected: one high performing JHS from the Sunyani Municipality and one low performing JHS from a rural area within the Berekum Municipality.

These two regions were chosen for this study for three reasons: a) first for easy sampling for the researcher and secondly, the Ashanti region has the highest population density and the highest number of basic schools both public and private in the regional capital, Kumasi. Besides, Kumasi, the capital of Ashanti has a central location: people from North and South, East, and West converge there. The BrongAhafo region was also chosen because it is one of the fastest growing regions in the country due to its centrality between the perceived deprived North and the perceived affluent South of Ghana and the fact that Sunyani, the regional capital has a considerable number of higher educational institutions.

Thirdly, research focusing on achievement mismatch between endowed and less endowed basic schools conducted elsewhere in the country has not been replicated yet in the deprived parts of these two regions generally perceived to be 'better resourced' than other geographical parts of Ghana.

When permissions were obtained from these various groups after explaining that purpose of the survey was purely academic in telephone calls and personal contact in some cases, the 240 respondents were given survey pack containing a consent form and a questionnaire. In terms of sex ratio, one third of the total sample was females while two thirds were males.

Procedure and Measures

Data were gathered through semi-structured questionnaires divided into different sections measuring different study variables as: a) *personal data of respondents:* Respondents were asked to report information on their age, level of academic qualification (Diploma in basic education, Bachelor of Education, M.Phil/M.Ed; M.Sc, M.A), academic/administrative rank, years of engagement in the teaching profession/years of working in the Ghana Education Service; b) *Personal vision of the goals of basic education.* Focus here was to assess respondents' attributes of benchmarks for literacy achievement standards in reading and mathematics skills. Instrument used to measure this on the structured questionnaire was an adapted variant of the 'Attributes of the Intelligence Scale' (Okagaki& Steinberg, 1993). There was a total of eight items in the measure using Likert's 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree); *c) Respondents perception of the cause of low achievement in public basic schools*. Four measures assessed in the structured questionnaire under the perceived cause of low achievement were: i) whether or not the increase in enrolment in Ghanaian basic public schools match with achievement in literacy skills such as reading and mathematics; ii) If there is mismatch at basic level between enrolment and achievement, what factors account for the incongruity, iii) extent to which variability in resources both human and physical explain differences across basic schools in Ghana, iv) what explains the comparatively better performance of public basic schools in the first four decades which were poorly resourced, compared to the relatively better resourced public schools.

Instrumentation

Two instruments were used to gather the data: questionnaire titled 'exploring the gap in reading and mathematics achievement between basic public and private schools in Ghana' and records obtained from the planning, research and statistics departments of the Directorates of the Ghana Education Service in the two regions sampled for this study. Method used in data analysis was using simple percentage, and mean to analyze response to research questions.

Results

Demographic Profile

There were a total of two hundred and forty (240) respondents in this survey. Out of this, one hundred and sixty (160) constituting (66.66%) were people directly involved with Junior High School: JHS head teachers (principals) 16.66%, JHS teachers, 16.66%, JHS continuing students, 16.66% and JHS graduates, 16.66%. The remaining 33.34% constituting (80) of the participants were community and opinion leaders as well as involved parents in these selected schools. Out of the total sample of 240, half (120) were from the rural areas and the remaining half were from the urban and semi urban areas. Two-thirds of the head teachers possessed the Bachelor of Education degree, one third of the teachers had other degrees and thirty (30) out of the forty(40) teachers had the Diploma in basic education. None of the teachers and head teachers possessed the Master's Degree. There were ten (10) non-professional teachers. In all, teachers and head teachers (principals) had been teaching ranging from a minimum of 3 years to 20 years and above. In terms of age, respondents ranged from eighteen (18) to forty-five (45+) and above. In terms of socioeconomic determinants of parents of students/pupils sampled for the study, on average, the monthly income of urban parents [(mean = USD400) are nearly twice as high compared to the rural parents mothers' (mean =USD200). There was also lesser number of children among urban parents households (mean = 1.97) in comparison to the rural parents. The urban schools had better resources both human and physical than the rural schools.

Matching Increase in Enrolment with Achievement in Basic Literacy Skills: Reading and Mathematics

This variable examined the first research question: *Does increase in enrolment in Ghanaian basic public schools match with achievement in literacy skills such as reading and mathematics?*

Two hundred (200) out of the two hundred and forty (240) respondents (83.33%) concurred that since the millennium there has been enrolment increase in basic schools in Ghana. Access to basic education has been made available to as many Ghanaian children as possible due to the millennium goal of 'Education for all' by 2015. This notwithstanding, corresponding increase in basic literacy achievement in reading and mathematics is still deficient in most public basic schools. This is evident from the results of the basic education certificate examinations (BECE) as well as the cross-national comparisons in the Trends in International Maths and Science Study (TIMSS) since 2003. Seventy (70) out of the 80 students (both continuing and graduates) were emphatic that since 2010, BECE results across the country consistently indicated lower performance in reading and mathematics achievement compared to the private basic schools whether urban or rural. Therefore, the low achievement level of basic public schools in Ghana was real and not just a perception. The remaining forty (40) respondents (16.77%) were unsure.

Factors Accounting for the Incongruity between Enrolment Increase and Achievement

The second research question sought to seek answers from the respondents regarding factors likely to be the cause for the incongruity between present enrolment increase and achievement. In response to the question*: If there is a mismatch at the basic level between enrolment and achievement what factors account for the incongruity?* The findings were interesting and could be categorized under four major headings as the significant factors for the mismatch between enrolment increase and achievement in Ghanaian basic schools in this study: a) management factor; b) teacher-incentive factor; c) availability of teaching-learning material, d) better infrastructure factor.

Management Factors

Two-thirds of respondents constituting 66.66% (160, mostly teachers and head teachers) attributed mismatch between enrolment increase and achievement to management issues. Contention was that privately-owned basic schools were better managed than the public schools. For example, respondents agreed regarding teaching supervision, that proprietors of private schools ensured teachers were punctual in class, that lesson notes were well prepared and that teacher performance were periodically appraised by management. Teachers in private basic schools could not leave school before closure time. Salary incremental adjustments in these schools were made contingent upon the number of pupils/students who passed successfully the BECE. Remaining eighty (80) respondents (33.33%) attributed mismatch also to management but under different dimension: there was better teacher-parent relationship as well as a better correlation between home background of students/pupils and the school in the private schools than it was in the public basic schools. This de-facto encouraged better coordinated approach between home and school in monitoring learning progress of students/pupils in the private schools. This was considered less so in the public schools. Besides, small class size in private schools, compared to public ones, encouraged one-to-one teacher/pupil relationship/tutorials outside of class on reading, mathematics and science for slow students. In public schools, class size alone discouraged such one-to-one relationship and tutorials for slow students.

Teacher-Incentive Factors

Two hundred and thirty-five (235) out of the total sample (97.9%) attributed incongruity between enrolment increase and achievement in the public schools relative to the private basic schools to teacher-motivation factor. All respondents concurred that the public basic schools in Ghana had comparative advantage regarding teacher quality than the private basic schools. Since the 1987 Education Reform, untrained teachers in the public system of education were laid off. Most private basic schools have few trained retired teachers from the public service (majority are untrained) and yet at the BECE, private basic schools consistently out-performed the public schools. Out of this number (235) of respondents attributing the cause of the mismatch to teacher-inceptive factors, about three-quarters (75%) constituting some one hundred and seventy (176) were of the view that better performance of private schools was due to teacher job-satisfaction: teachers in most private schools compared to the public were comparatively better remunerated. Consequently, teachers in these schools were more likely to be highly motivated than those in the public system. Teacher-incentive factor carried with it other concomitant issues: de-motivated teachers were more likely to take industrial actions such as strikes in the public schools; syllabi not finished within stipulated time periods. Almost all the students/pupils from the rural public schools admitted teacher absenteeism and drunkenness as a reality since there appeared to be no checks from the district directorates.

Availability of Teaching-Learning Materials

The government of Ghana continues to make efforts with international donor agencies to make teaching-learning materials available to all public basic schools. These efforts notwithstanding, seventy percent (70%) constituting one hundred and sixty eight (168) of respondents especially from the deprived public basic schools agreed resources were either not forth-coming or highly insufficient. The worst affected public basic schools were from the most deprived areas where this study was conducted such as Abotoso in the Offinso South Municipality in the Ashanti region and Jinjini in the Berekum Municipality in the BrongAhafo region where there was lack of text books and even chalks for most of the time.

Better-Infrastructure Factor

Regarding better infrastructure as cause of poor achievement, there was overwhelming response that schools with better infrastructure, better resourced in terms of classrooms, libraries with better equipped books and better equipped laboratories compared with those that lack these facilities were more likely to do better in terms of academic achievement than those without these facilities. Indeed ninety-seven (97%) that is about two hundred and thirty two (230) respondents were of the opinion that by and large better infrastructure factor was one of the leading predictor of better academic achievement differences between and among students. Students/pupils were likely to feel more comfortable and pay attention in a more spacious and well-ventilated classroom than it would be in a stuffy classroom with many more students/pupils. The latter appeared to be typical in the public basic schools.

How Variability in Resources Explain Achievement across Public Basic Schools in Ghana

The third research question was to find out how differences in resources both physical and human such as: a) the number of library books per pupil, b) seats per pupil, c) teacher guides per teacher, d) pupil/teacher ratio, e) percent of functional toilets, f) percent with accessible drinking water, g) percent of untrained teachers etc. were likely to affect academic achievement across the public schools. With respect to number of library books per pupil all the teachers and head teachers as well as students/pupils both graduates and continuing were of the view government was doing well, there was still imbalance between supply of books and demand due to the increase in enrolment. In all 87.49% admitted there were not enough library books per pupil especially in the semi-urban and deprived rural areas compared to the public schools in the urban areas. Out of this 66.66% were teachers, head teachers, students/pupils both graduates and continuing while the remaining 20.83% were community leaders and involved parents in the respective schools selected for this research. All the eighty (80) teachers and head teachers (33.33%) admitted lack of enough teacher guides (especially in the remote rural areas compared to the semi-urban and rural areas) as critical predictors in achievement between public and basic schools. Regarding accessible drinking water, teacher/pupil ratio, accessibility to electricity, number of untrained teachers in the system, the rural and semi-urban public schools were relatively worse off compared to the urban schools. Ninety percent (90%) of respondents (216) were of the opinion these variances in resources were the likely predictors for the manifest differences in academic performance: urban public schools performed twice better than semi-urban, while the latter also performed much better than the rural basic schools. However, eighty-five percent (85%) admitted this was not the case for most private basic schools. The rural basic private schools still outperformed their counterparts in the public school system because of variations in resources. Private school proprietors competing with public basic schools ensured their schools were provided with basic resources as drinking water, electricity, responsible retired experienced teachers from the public system, and library books to make them compete favourably with government for students/pupils.

Comparatively Better Performance of Poorly Resourced Public Basic Schools in the First Four Decades of Independence than Now

This variable attempted to find some explanations to the rather puzzling question engaging the mind of this researcher as educationist. Government of Ghana since the beginning of this millennium joined hands with development agencies to invest so much into education. Indeed significant progress has been made in terms of increasing access to basic education but not with respect to quality of learning.

Comparing contemporary education endeavours of government with the first four or so decades after political independence from Britain in 1957 (from the 1960 through the late 1980's,) the then basic schools were comparatively poorly resourced in relation to now: there were so many untrained teachers in the system at the time, poor school infrastructure, resources such as books, teacher quality etc. were all lacking then.

All these notwithstanding, graduates from the then MSLC (Middle School Leaving Certificate) could write and speak far better English, computed better in mathematics, taught better in the primary schools than it is now with BECE (Basic Education Certificate Examination) graduates . What explains this? The findings were as interesting as there were varieties of respondents. Teachers and head teachers, community leaders and involved parents who are 45 years and above in this survey admitted the perception is real. Out of a total of one hundred and sixty (160) respondents from these four identifiable groups, one hundred and twenty (75%) agreed basic school graduates in the old system performed better in English and mathematics irrespective of the poor resources at the time because: a) *better management of public schools*: public schools in the first four decades of this country were better managed and supervised at the grassroots level by committed and motivated head teachers. Inspectorate division of the district directorates of education used to put teachers and head teachers on their toes due to unannounced external supervision. So schools were better managed and supervised than they are now; b) *teacher status at the time*: in the first four decades of basic formal education in Ghana, the teacher was an authority figure in the community. In most cases teacher was also a catechist in the neighbourhood church, the interpreter of the white missionary, head of the town/village development committee etc. Thus teacher wielded a lot of respect and command in the community at the time. Poor salary was compensated for by gifts as foodstuff from church or the community; c) *teacher self-efficacy*: all these enhanced self-efficacy and self-concept of teacher motivating him/her to give his/her best; d) *smaller national population*: from the onset of political independence, access to basic education was mandatory for all school-going children in Ghana as part of the 'Acceleration Development Plan' of the then Convention Peoples Party (CPP) Government. Pressure on Government at the time to provide more schools, train more teachers, supply more teaching and learning materials was not as acute in the first four decades as it is now with equal demands from the other sectors as health care delivery, road and network infrastructure, electrification etc. due to population increase; e*) longer duration*: in the old system pupils spent ten years (10) at the basic level before secondary education. The longer period ensured learning mastery and consolidation, especially where resources were lacking compared to the relatively shorter period of the present system.

The other twenty five percent (25%, mostly between 20-30 years of age, not familiar with the old system) were not sure perception that graduates from basic education in the old system of education performed better than graduates of today. Reasons given were cogent: namely, that at the time, scientific means of assessing over-all cross country results of BECE or National Assessment of Examination or continental comparison of achievement in mathematics and science were not as accurate as today. Hence contention that pupils' achievement in public basic education in the old system was better than it is now is debatable.

Discussion

The data from this research point to four core areas that we can look for causes of imbalance between resource input and students' achievement: a) management factor; b) teacher-incentive factor; c) availability of teaching-learning material, d) better infrastructure factor.

The academic achievement of many educational institutions is influenced largely by the leadership style of the administrator and management team (Tetty-Enyo 1997). Indeed, management literature shows that 'high levels of employee turnover are found to be both the cause and effect of problematic conditions and low performance in organization (Ingersoll, 1999) and the over-all effect of a well-managed school with effective heads cannot be underestimated. The finding of this paper in which 66.66% (constituting two-thirds of respondents) making submission that Ghanaian public schools were not doing better in reading and mathematics relative to privately-owned schools because the latter were better managed and supervised support the claim by management researchers such as Leithwood et al (2008). These authors find that while teachers have the most influence on student performance, principals were essential for setting the tone of the learning community and modeling good teaching practice. The role of the principal was crucial to promoting and supporting teachers' achievements. It created a positive work environment for teachers, and improved staff morale, which also created the right learning environment for students (Leithwood, et al., 2008; Firestone et al., 2001).

Principal accountability, such as principals' ability to take responsibility for student achievement, was often an indicator of the quality of a particular school's educational practices in general (Vanderhaar, et al., 2006; Firestone et al., 2001; Quinn, 2002). Because principals' were educational leaders among their teachers, an effective principal could shape the outcomes of a school's performance on test scores by supporting creative and effective teaching (Firestone, et al. 2001).

There is a general consensus that motivated teachers are crucial to quality education. Research reports exploring the internal psychological factors affecting teacher motivation such as the link between teacher self-perception and attitudes towards work indicate that when teachers compare remuneration with counterparts in financial institutions as well the contemporary low status symbol of the teacher, motivation tends to go down. On teacher motivated factor and poor achievement in the public schools compared to the private schools, overwhelming number of respondents of two hundred and thirty-five (235) out of the total sample of two hundred and forty (240) representing 97.9% confirms the findings of Ntim (2010), Eliot and Church (1997), Atkinson (1957) and many others. Achievement motivation has to do with striving for competency in effortful activities (Eliot & Church, 1997). Motivation to act was presumed to have been driven by a desire to satisfy needs. Historical foundations of the achievement motivation theory included theories such as: *Expectancy value theory, familial influences, fear of success.* The core idea of the expectancy value theory is this: behaviour depends on how much individuals *value* a particular outcome (goal, reinforcer) and their *expectation* of obtaining that outcome. People judge the probability of obtaining outcome, if they perceive outcome to be impossible they would not pursue it. Even an outcome that is positive may not produce action if it is not valued. So an attractive outcome coupled with the belief that it is attainable motivates people to act. Atkinson (1957) postulates that achievement behaviour is a conflict between approach (hope for success) and avoidance (fear of failure) tendencies. The contemporary model of achievement motivation is a shift from the classical approach by Atkinson and his colleagues from the simple stimulus-response to the person's perception and beliefs as influences on behaviour. The contemporary model include the *self -worth theory,* the *task and ego involvement theory*, *achievement motivation training.* The low achievement level in literacy skills in Ghanaian public basic schools can also be explained by low teacher motivation and retention.

The school students attend is strongly predictive of their performance. Furthermore, the socio-economic composition of schools explains far more of the differences in student performance between schools than do other school factors that are more easily amenable to policy makers, such as school resources and school policies. There is some evidence of an inequitable distribution of inputs – that schools with a more advantaged intake often have better educational resources. This position seems to have been suggested by the findings on how variability in school resources has impact on students' academic achievement. The data indicating that 84.49% admitting that there are not enough resources such as: a) the number of library books per pupil, b) seats per pupil, c) teacher guides per teacher, d) pupil/teacher ratio, e) percent of functional toilets, f) percent with accessible drinking water, g) percent of untrained teachers points to an inequitable distribution of inputs. This finding supports the 2005 Organization for Economic and Cooperation Development (OECD) report for International Student Assessment (PISA) that the structure of schooling – including the grouping of students, segregation of schools, management and financing, school resources, and the instructional climate – influence the quality and equity of educational achievements. The data from this study also supports the 2009 review of basic education quality in Ghana. There were larger variations in pupils' performance on National Examination Assessment (NEA) English scores across the ten regions. For example, pupils in Primary 6 in the Greater Accra region scored between 8.8 and 15.0 points more than their counterparts in the other nine regions. Similarly, pupils in the Ashanti region scored between 2 and 6 points greater than pupils in the other eight regions (Mitchell Group, 2009). This is an indication of resource variance impacting on academic achievement.

Before the 1987 Educational Reform, Ghana had poorly resourced basic schools: a large number of untrained teachers in the system, poor infrastructure, few number of school-going age children in schools. Nevertheless, perception has always been that public basic schools in the first four decades performed better at the then MSLC than the present performance at BECE. The finding in which 75% of teachers, head teachers, community leaders and involved parents admitted that the perception is real and attributed it five factors: better management of schools, teacher status symbol at the time, teacher self-efficacy, smaller number of national population, longer duration of basic school support the perception and confirms some research positions. First, better-managed, better supervised schools tend to do perform better than less managed and less supervised ones.

In the 1960's public basic schools were better managed and supervised. Secondly, most teachers in the early decades of formal education in Ghana were untrained yet were seemingly very highly motivated because they were held in high esteem and had lot of influence in society. This seems to suggest that self-efficacy is psychologically linked to high motivation and performance. Thirdly, Ghana's population in the early decades of independence was not as high as it is today implying that access to basic education and enrolment increase are welcome ideas. Nevertheless, they present some challenges on public expenditure. Fourthly, this pressure and the need to expand access to all are the likely predicting factor for the reduction of the number of years of pre-university education from 17 years to 12 years irrespective of the child's home background. Not all children have the same level of mastery and consolidation at a shorter period of time given the constraints in resources in our public schools.

Conclusion

Enrolment in basic education has made significant progress in Ghana but learning achievements appear to have stagnated in the last couple of years, notwithstanding the fact that Ghana's education system continues to be one of the best on the African continent. In this study, interviews with teachers, head teachers, past and current students in basic schools, involved parents and community leaders in these four selected districts conducted to gauge their views on the source of the problems suggest the need to match enrolment with four core issues in mind: a) better-managed and properly supervised schools, b) the need to ensure high level of teacher motivation, c) ensuring a level playing field in resource allocation especially in the areas of availability of teaching-learning materials, as well as controlling the variability in school infrastructure, d) pressure on public expenditure due to population increase.

It is one thing increasing enrolment to enhance access to basic education which is a fundamental right of every Ghanaian child and quite another ensuring that schools are better-managed and supervised by competent and experienced head teachers. Increase in enrolment de-facto implies building more schools, more teaching and learning materials, additional infrastructure, more teachers etc. All this puts pressure on Government such that not all public basic schools are equally catered for with respect to teaching and learning materials and infrastructure and this is likely to have a negative effect on teaching and learning resulting in the poor performance in reading and mathematics in most deprived public basic schools.

Thus the findings of this study suggest that the quality of basic education in Ghana is at a cross roads. The system will require new resources, including those from non-government sources, especially the need for public-private partnership. Improving student achievement will also require that new resources are allocated in new ways that are not just simply based on the rural-urban divide, but also ensuring that learning actually takes place whether urban or rural.

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