

**GHANA NATIONAL ASSOCIATION OF TEACHERS (GNAT)
&
TEACHERS & EDUCATIONAL WORKERS (TEWU) OF GHANA
TRADES UNION CONGRESS**

Teacher Attrition in Ghana

Results of a Questionnaire Survey

2009

Contents

Contents	1
List of Tables	4
List of Abbreviations	5
CONTRIBUTORS.....	6
SECTION 1	7
1 Introduction.....	7
SECTION 2	10
2 Background Information	10
<i>2.1 Education in the Colonial Era</i>	10
2.2 Education in the Post-Independence Era	12
2.3 Current State of Education in Ghana	15
SECTION 3	20
1 Teacher Attrition: A Review of the Literature	20
SECTION 4	23
Survey Results	23
4.1 Data.....	23
4.2 Key Findings from the Survey.....	24
4.2.1 Demographic Profile of Respondents	24
4.2.2 Educational Qualification and Professional Status	25
4.2.3 Teacher Attrition.....	26
4.2.4 Plans for further education.....	26
4.2.5 Plans after further Education	28
4.2.6 Wages	30
4.2.7 Access to Benefits.....	32
4.2.8 Job Satisfaction	33
SECTION 5	36

Conclusion and Recommendation	36
References.....	41

List of Tables

Table 1 School enrolment levels from 1951-1970.....	13
Table 2 Gross Enrolment Rates (GER) for 2003/2004 to 2005/2006 & Net Enrolment Rates (NER) in Primary Schools (2004/05 to 2007/08)	16
Table 3 Trend in Public Expenditure on Education from 2000-2008 (GHC Millions)	18
Table 4 Teaching Staff (TS) and Non-Teaching Staff (NTS) Status by Region	19
Table 5 Distribution of Survey Questionnaires Completed & Returned by Region.....	23
Table 6 Age distribution of Respondents.....	24
Table 7 Marital Status of Respondents	24
Table 8 Number of Children of Respondents	25
Table 9 Respondents' current levels of Qualification.....	25
Table 10 Professional Status of Respondents	25
Table 11 Plans to Further Education.....	26
Table 12 Preferred Field of Study for Further Education	27
Table 13 Table 4.8: Plans to apply for Study Leave with Pay.....	27
Table 14 Reasons for Further Education.....	27
Table 15 Plans after further education	28
Table 16 Preferred Sector of Employment after further education for those who will not return to the Classroom.....	29
Table 17 Work experience in other professions.....	30
Table 18 Gross Monthly Wages.....	31
Table 19 Satisfaction with Pay.....	31
Table 20 Access to Social Security	32
Table 21 Access to Paid Annual Leave.....	32
Table 22 Access to Paid Sick Leave	32
Table 23 Access to Selected Non-Statutory Benefits	33
Table 24 Are you satisfied with your work as a teacher	34
Table 25 Respondents' levels of satisfaction with the teaching profession.....	34
Table 26 Would you recommend the teaching profession to your children or relatives	34

List of Abbreviations

DfID	Department for International Development
EFA	Education for All' Programme
ERP	Economy Recovery Programme
ESP	Education Strategic Plan
FCUBE	Free Compulsory Universal Basic Education
FUPE	Free Universal Primary Education
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GES	Ghana Education Service
GET Fund	The Ghana Education Trust Fund
GNAT	Ghana National Association of Teachers
JSS	Junior Secondary Schools
NDC	National Democratic Congress
NER	Net Enrolment Rate
NGO	Non-Governmental Organization
NPP	New Patriotic Party
PTAs	Parent-Teacher Associations
SMCs	School Management Committees
TEWU	Teachers and Educational Workers Union
TUC	Ghana Trades Union Congress

CONTRIBUTORS

Researchers

Dr. Yaw Baah

Kwabena Nyarko Otoo

Clara Osei-Boateng

Coordinators

Helena Awurusa (GNAT)

M.S. Bogobiri (TEWU)

Supervisors

Irene Duncan-Adanusa, General Secretary, GNAT

Daniel Ayim Antwi, General Secretary, TEWU of Ghana TUC

SECTION 1

1 Introduction

This is a report of a study on teacher attrition in the pre-tertiary educational system in Ghana.

The main question that motivated this study is: *Why are teachers leaving the classrooms?*

The information gathered in this study provides the basis for GNAT and TEWU (the two unions that commissioned this study) to engage the relevant authorities in the educational sector in order to keep teachers in the profession. GNAT and TEWU believe strongly that the most effective way to improve access to education and the quality of education in Ghana, in line with the objectives of the 'Education for All' (EFA) Programme, is to attract and retain qualified teachers in classrooms especially at the pre-tertiary level.

The role of formal education in the development processes is well recognized all over the world. Education is a key contributor to social development and constitutes the bedrock for sustainable economic development. According to Oduro (2000), knowledge and technology are increasingly becoming the basis of competitive advantage in the world. The quality of a country's stock of human capital influences the extent to which knowledge and technology can be utilized to enhance productivity and to improve the well-being of the citizens. These can be achieved through formal education and training. Formal education is also the most effective means of skills acquisition and the development of the human capital stock. Moreover, education increases the ability to understand, appreciate and critique new ideas, and it can facilitate the adoption and modification of technology to suit a country's peculiar development challenges.

Ghana's education sector is facing many challenges. The challenges include poor and inadequate infrastructure, insufficient financing and shortage of teachers especially in the rural areas. Within this spectrum of challenges, teacher shortage, which is largely associated with low rate of teacher training and high level of teacher attrition, has been identified as one of the most intractable problems facing the education system in Ghana.

Paradoxically, the Ghana's educational system has seen several reforms since independence and many of these reforms have sought to increase the number of teachers trained and retained in the classrooms. Among these measures was the payment of allowances to teacher trainees to motivate more people to enroll in teacher training institutions. These measures have, in the past, resulted in high turnout rate from the teacher training colleges. But the teacher attrition rate has been equally high.

The high rate of teacher attrition has been attributed to several factors. Key among them is the poor working conditions for teachers. Teachers in Ghana are among the poorly paid in the public service. In addition, teachers in Ghana especially those working in rural and deprived communities work under very difficult social and economic conditions. These communities often lack all the basic necessities of life such as potable water, electricity and health facilities among others. Teachers in such deprived communities generally have very little opportunity for self-development and the development of their children. They are sometimes compelled to work long hours and engage in multiple tasks. Support and supervision services are lacking and facilities and resources for effective teaching are usually are not available to them.

The low level of salaries and the poor working conditions have contributed to the low status of teachers in society. This has considerably reduced morale in the teaching profession and diminished its appeal. The poor working conditions often force teachers to hold multiple jobs which in turn negatively influence the quality of teaching. As the working conditions and the status of teachers keep falling, the number of teachers leaving the classrooms for greener pastures rises.

The low level of literacy and numeracy among the Ghanaian population is partly a reflection of teacher attrition in the country. Part of the problem is that the interventions in the educational system aimed at keeping teachers in the classroom have often been based on the advice of so-called experts who may know very little about the challenges facing the educational system in Ghana. The views of teachers who are at the centre of the educational system are hardly taken into account. The result is that teachers continue to leave the classrooms even as more initiatives and measures are being implemented.

It was against this background that this survey was conducted to solicit the views of teachers and educational workers on teacher attrition in Ghana. Hopefully, the views of teachers contained in this report will be taken into account in the formulation of new initiatives and interventions to deal with the high rate of teacher attrition in Ghana.

The rest of the report is organized as follows: Section 2 provides detailed background information of the education system in Ghana. Section 3 reviews the literature on teacher attrition. Section 4 presents the findings of the survey. Section 5 is the conclusion.

SECTION 2

2.0 Background Information

2.1 Education in the Colonial Era

At independence Ghana had a relatively good educational system. The only weakness of that system was its huge colonial imprints. That system was criticized for not being responsive enough to the unique developmental challenges that faced the country at the time. This necessitated the need for major reforms so that education at all levels would meet the developmental aspirations of the country.

Formal education in Ghana dates back to 1592. The current educational system is therefore an outcome of several decades of transformation from a structure inherited from the missionaries and the British colonial administration.

During the colonial period, the focus of education was on spreading the gospel and creating an elite group to run the colony. As was the case in many other colonies, education in the Gold Coast began with colonial administrators and the merchants setting up schools in their forts and castles to educate the children (mulatto) they have had with native women. Christian missionaries were very instrumental in the introduction of formal education in Ghana. They needed well-educated local assistants to spread the gospel.

By 1874, before the British took full authority of the Gold Coast as crown colony, the missionaries had already established a number of mission schools particularly in the southern part of the country. For instance, by 1881, more than 139 schools had been established with an enrolment of about 5,000 students. Thirteen years later, the Basel missionaries established a Teacher Training College, 3 grammar schools, 7 boarding schools and 98 day schools.

During that period, there was a wide variation in the educational system in terms of curriculum and management of the schools. This prompted the authorities to draw up plans in

1882 to guide or standardize educational development in the country¹. As a result, the proposed targets² for the development of education were set in 1918 by Sir Hugh Clifford. They included the following:

- Primary education for every African boy and girl;
- A Training College for teachers in every province;
- Improved salaries for teachers; and
- A Royal College

To improve access to education, the authorities instituted a poll tax in 1852 to expand educational facilities. But the measure became unpopular and was abolished after nine years of its implementation. Several industrial schools were established, focusing on technical and agricultural education. At the Prince of Wales College scholarships were awarded to students to continue their studies in British universities. A separate department of education was created to take charge of education in the neglected northern territories.

In the early part of the 1930s emphasis was placed on the training of teachers by the government. This additional impetus to education development can be traced to Governor Guggisberg's ten-year Development Plan, announced in 1919, in which education was given a special place. His policies did not only stress the need for improved teacher training, vocational training, and equal education for girls but also Europeans were replaced with well-educated Africans in many administrative setups in the Gold Coast. Even though English remained the principal language of instruction in the school system, local languages (vernacular) were also allowed in primary schools. Textbooks were published in some local languages.

It is clear from the foregoing that the colonial administration laid a solid foundation for the development of formal education in Ghana. By the 1950s there were about 3000 primary and

¹ An inspector of schools was installed from 1887 to 1890, and later an office of the Director of Education was created to inspect schools and to standardize their management

² The proposed targets and recommendations from several committee's such as "the Phelps-Stokes Fund" from America and the "1922 committee" led to the opening of the Prince of Wales College (later Achimota College) in 1927

secondary schools in Ghana and about seven percent of the population of 4.2 million was in school.

2.2 Education in the Post-Independence Era

Post independence education was given a further boost by the Nkrumah Government. Nkrumah saw education as the key to national development. Nkrumah introduced the policy of education for all. Basic education was made free and compulsory by the Education Act, 1961 (Act 87) which made education compulsory and free. There were free textbooks for all students and local education authorities were created and charged with the responsibility for buildings, equipment and maintenance for primary schools (Asiedu-Akrofi, 1982, p. 100). The objective was to bring about Free Universal Primary Education (FUPE).

The pre-university system of education at this period was structured as follows: 6 years of primary education; 4 years of middle level education; 5 years of secondary education and 2 years of sixth form education (i.e., the 6-4-5-2 system). This was followed by three years of university education for those who qualified to enter the university. Students, who could not qualify for sixth form, could proceed to do two years of pre-vocational or three years of training college.

There was a dramatic increase in the number of elementary and secondary schools as well as in enrolment during the reign of Kwame Nkrumah. Between 1951 and 1961, the number of schools had increased from 571,580 to 875,980 (a 53 percent increase). Within the same period the number of secondary schools increased almost six-fold from 12 to 68, while the number of training colleges nearly doubled from 19 to 32. Primary and middle schools together increased fivefold from 1,592 to 7,660. The phenomenal growth in the number of schools led to an equally phenomenal increase in school enrolment. For instance, in 1961, the total enrolment for secondary schools and training colleges were 19,143 and 4,552 respectively. As shown in Table 2, there was improvement in enrolment at all the levels between 1950s and 60s.

Table 1 School enrolment levels from 1951-1970

Level of education	1951	1961	1970
Primary Schools	154,360	481,500	975,629
Middle Schools	66,175	160,000	424,430
Secondary/Technical	3,559	19,143	46,213
Teacher Training Colleges	1,916	4,552	N/A
University	208	1,204	N/A
Total	226,218	666,399	1,446,272

Source: Nkrumah (1967) and Ministry of Education

But the system of education was said to be too long and academic. These concerns led to some educational reforms in 1974 with the introduction of the Junior Secondary Schools (JSS). The JSS brought with it practical subjects allowing students to acquire occupational skills. The JSS system started on a trial basis and never survived the experimental phase due to a number of challenges. The challenges included the severe economic decline in the 1970s, bureaucracy and sheer lack of political interests in the system. Between the mid 1970s and the early 1980s the Ghana education system was in a state of crisis and had began to slip slowly into decline prompting several commissions of inquiry³. Apart from disruptions by military coups, the system was challenged with drastic reduction in government financing, lack of educational materials, deterioration of educational infrastructure, low enrolment levels and high dropout rates. According to the World Bank (2004: 7), between 1976 and 1983, Ghana's education sector budget as a share of GDP, declined from 6.4 to 1.4 percent. The poor conditions at home led to a large scale exodus of qualified teachers to Nigeria where new found oil wealth was funding a rapid expansion of basic education. Consequently, untrained teachers filled the places of those who left. According to Colclough with Lewin, (1993) there was a steady fall in gross enrolment ratios from 80 percent in 1980 to 70 percent in 1987.

³ A notable one is the Dzobo Education Review Commission set up to determine the causes and way forward for recovery

In 1987, education was further reformed⁴ based largely on the recommendations of the Dzobo Commission and with assistance from various development partners such as the World Bank and UK Department for International Development (DfID). The 1987 reform, which formed part of the economy recovery programme (ERP), is described as one of the most ambitious programmes of educational reforms in sub-Saharan Africa. The 1987 reforms re-introduced the Junior Secondary School system and made it a nationwide educational system and replaced the 6-4-5-2 pre-tertiary school system with 6-3-3 (i.e., 6 years of primary education, 3 years of junior secondary and 3 years of senior secondary) thus shortening pre-tertiary education from 17 to 12 years.

In 1996, ten years after the implementation of the new system, government introduced an education sector policy known as “Free Compulsory Universal Basic Education (FCUBE)”. The FCUBE programme was an effort to ensure that all school-age children received free quality basic education. The FCUBE created the framework for donor support to education through a coordinated sector programme, and brought about educational decentralization with greater recognition of the important role of community participation in the management of schools through School Management Committees (SMCs) and Parent-Teacher Associations (PTAs).

Thus, there have been three major educational reforms in the post-independence era - 1961, 1967 and 1987. There have also been several reviews of the education system. They include the reviews in 1966, 1974, 1993, 2002 and the most recent one in 2008. Major educational reforms and reviews, policy initiatives, and laws in the education sector include:

- The Education Act of 1961;
- The Dzobo report of 1973 (The Committee recommended the JSS system);
- The New Structure and Content of Education 1974;
- The Education Reform Programme 1987/88;
- The Free Compulsory Universal Basic Education Programme, 1996-2005;
- The Ghana Education Trust Fund - GET Fund Act 2000 (Act 581);

⁴ Some of the objectives of the reforms were to increase access to basic education, make education cost-effective, and shorten the pre-university educational structure from 17 years to 12 years as well as improve quality of education.

- The Capitation Grant and School Feeding programme; and
- Ghana Education Reform 2008

2.3 Current State of Education in Ghana

Currently, Ghana has the 6-3-3 pre-tertiary system (i.e., 6 years of primary education, 3 years of Junior High School education, 3 years of Senior High School education) and 4 years of University (Bachelor's) education. Students who pass the SSS examination can also pursue courses at the polytechnics, teacher training colleges and other tertiary institutions.

The search for an 'ideal' education system for Ghana has, however, remained elusive. The government of Ghana, under the leadership of the New Patriotic Party (NPP) proposed changes in the education system in August 2007. A new 6-3-4 pre-tertiary system was introduced in 2008 (i.e., 6 years of primary; 3 years of Junior High School and 3 years of Senior High School). Key among the reforms was the shift from 3 to 4 years of secondary education as well the focus on technical and vocational education. But these changes were reversed by the NDC Government in 2009 even before they were implemented.

Broadly, the existing national educational system is made up of two components: Pre- tertiary and higher education. The pre-tertiary education is sub-divided into: pre-school education (below 6 years); primary education (6-12years); junior secondary education (13 years and above); and senior secondary/technical/vocational education.

As the foregoing shows, the education system in Ghana has undergone many changes since independence. The last two decades alone have witnessed series of initiatives with the support of some development partners. These initiatives have all aimed at addressing inequities in the educational system and to improve overall quality of educational outcomes⁵. While a number of policy reforms and interventions (e.g., capitation grant, school feeding and Free

⁵ The Education Strategic Plan (ESP) is planned for the period 2003 - 2015. The Plan is based on the Poverty Reduction Strategy and operates within the framework of a sector-wide approach to education and a roadmap for achieving the education related MDG's. The ESP has four 'pillars': (1) Equitable Access to Education, (2) Quality of Education, (3) Educational Management and (4) Science, Technology and Technical and Vocational education (TVET). The ESP aims at increasing access to and participation in education and training, improving the quality of teaching and learning for enhanced pupil/student achievement.

Compulsory Universal Basic Education (FCUBE) have improved access to education for the school-age population across the country, instructional quality, student achievement, teacher motivation and retention remain critical challenges.

Over the last decade, there has been some improvement in physical infrastructure for schools. Enrolment at most levels has also increased significantly partly as a result of some of these policies and interventions. For instance, between 2003 and 2006 the Gross Enrollment Rate (GER) at the primary school level increased from 87 percent to 92 percent. Gross enrollment at the secondary level increased from 73 percent to 77 percent. Currently (in 2009), the gross enrolment at the primary level stands at about 95 percent. Net enrolment rate (NER) has also witnessed significant improvements in the past two decades. Table 2 below shows GER and NER in Ghana for the period between 2003 and 2008.

Table 2 Gross Enrolment Rates (GER) for 2003/2004 to 2005/2006 & Net Enrolment Rates (NER) in Primary Schools (2004/05 to 2007/08)

GER (%)				
Year	2003/04	2004/05	2005/06	2007/08
Total	86.5	87.5	92.1	95.0
Boys	89.5	90.5	95.3	97.1
Girls	83.1	84.0	88.8	92.8

NER Statistics in Primary Schools			
	2004/05	2005/06	2007/08
Pop 6-11 yrs	3,518,468	3,593,027	3,817,555
P1-6 enrolment(6-11 yrs)	2,079,786	2,484,855	3,156,731
NER	59.1	69.2	82.9

Source: Ghana, Ministry of Education, Science and Sports: Preliminary Education Sector Performance Report 2006, 2008

Despite the increase in physical infrastructure⁶ (i.e., the number of educational institutions) and improved access to education, the critical issue has always been inadequate resources for the education sector⁷. Schools at all levels of education continue to lack the very basic and essential inputs such as textbooks which are necessary for effective teaching and learning. School buildings and their contents – furniture and equipment – are often left in dilapidated conditions. Above all, the poor teacher motivation and shortage of teachers still exist at all the levels of education.

The proportion of Gross Domestic Product (GDP) devoted to education declined from 6.4 percent in 1976 to about 1.0 percent in 1983 before increasing to 1.7 percent in 1985 (World Bank, 1996). But the situation has improved significantly after the 1987 educational reform which was considered as the most fundamental reform ever undertaken in the educational system after independence. For instance, for the period between 2000 and 2005, public expenditure on education increased from 3.8 percent of GDP 5.6 percent. In 2006, central government allocation to the education sector increased further to 7.2 percent of GDP but fell to 5.9 percent in 2008.

Government's desire for improved educational outcome is also reflected in the increased resource allocations to the education sector compared to other sectors. With regards to the overall social expenditure, the education sector consumes over 60 percent of that budget as shown in the last column in Table 3 below.

⁶ Currently, Ghana has over 41,000 pre-tertiary schools: 30,562 primary schools, 10,213 Junior High Schools and 646 Senior High Schools. There are 38 teacher training colleges nationwide with at least one in each region. There are 10 Polytechnics (one in each region), 7 public universities and over 20 affiliated private universities.

⁷ This is in spite of that fact that more than a quarter of the national budget is devoted to education

Table 3 Trend in Public Expenditure on Education from 2000-2008 (GHC Millions)

<i>Year</i>	<i>Expenditure on Education*</i>	<i>Nominal GDP</i>	<i>Total Social Sector Expenditure (SSE)</i>	<i>Education Expenditure/ GDP Ratio</i>	<i>Expenditure/ Social Sector Expenditure Ratio</i>
2000	103.3	2,715.2	147.6	3.8	69.98
2001	142.0	3,801.4	191.0	3.7	74.35
2002	180.0	4,776.4	258.8	3.8	69.55
2003	277.6	6,526.2	406.9	4.3	68.22
2004	346.6	7,980.4	504.8	4.3	68.66
2005	-	9,701.8	570.5	5.6	NA
2006	827.9	11,490.3	1,330.0	7.2	62.25
2007	1,132.2	16,295.8	1,721.1	6.9	65.78
2008	1,264.9	21.6b	2,043.4	5.9	61.90

Note: Budget Allocations is a proxy for expenditure.

Source: Budget Statement & Economic Policy of the GoG, 2001-2009.

The increases in overall educational expenditure and in school enrolments are desirable in terms of moving the country towards meeting its objective of providing universal basic education for all Ghanaian children of school-going age by 2015. However, the increased expenditure and the enrolment figures have not reflected sufficiently (if any) in educational outcomes. For instance, the ever-increasing educational budget has not impacted much on the pay levels and general working conditions of teachers. This has contributed significantly to the high rate of teacher attrition. Those who have been trained at great expense to the taxpayer continue to leave the classrooms because of the lack of motivation for teachers.

With an estimated population of 23 million people (with more than half aged below the age of 15), Ghana currently can boast of less than 200,000 teachers (GES, 2009). This number is grossly inadequate to cater for the growing enrolment figures made possible by the various interventions mentioned above. The proportion of unqualified teachers in Ghana is still very high. But these unqualified teachers are needed to make up for the shortfall in the number of qualified teachers.

The Ghana Education Service (GES) estimates that about 10,000 teachers leave the classroom yearly for various reasons⁸. According to the Ghana Education Service, the number of

⁸ GES define attrition or turnover broadly to involve the following: (i) teachers who leave with permission for study leave with or without pay (who may not return); (ii) teachers out of the

teachers that go on study leave annually has also been on the rise. About 3000 teachers leave the classroom to pursue further studies. Pupil-teacher ratio has been around 30 since 2000. In the 2007/08 academic year, for example, the pupil-teacher ratio was 34 for the primary level and 19 for the secondary level. Table 4 (below) shows the distribution of teaching and non-teaching staff by region in 2009.

Table 4 Teaching Staff (TS) and Non-Teaching Staff (NTS) Status by Region

Region	Teaching Staff	Non-Teaching Staff	Total
Ashanti	42,229	15,701	57,930
Brong Ahafo	21,496	6,856	28,352
Central	25,410	8,475	33,885
Eastern	26,467	10,618	37,085
Greater Accra	15,696	8,138	23,834
Northern	17,229	5,165	22,394
Upper East	7,792	3,453	11,245
Upper West	5,517	2,351	7,868
Volta	19,029	6,563	25,592
Western	17,538	5,052	22,590
Total	198,403	72,372	270,775

Source: GES, HQ 2009

classroom on secondment; (iii) teachers retiring; and (iv) teachers just leaving to take up non-teaching jobs.

SECTION 3

3.1: Teacher Attrition: A Review of the Literature

The phenomenon of teacher attrition has been a worry to school authorities and policy makers in both developed and developing countries. In response, substantial research has been carried out on this subject to explore the causes and the attendant implications. Several causes of teacher attrition have been identified in the literature. Some empirical work has shown that one of the causes of the high rate of teacher attrition is the level and type of human capital accumulated by teachers. For instance, studies (summarized in Guarino, Santibañez, Daley, & Brewer, 2004 p. 34), show that teachers with advanced degrees from prestigious colleges or teachers with degrees in “high market-value” subjects such as mathematics, engineering and science typically leave teaching for jobs in other, non-education fields at higher rates than do their colleagues without these educational qualities. For such teachers, the *opportunity cost* of staying in the classroom is higher than they are for teachers with skills and knowledge less well-rewarding outside the teaching profession.

Other studies have shown that attrition can be divided into several types, each affected differently by human capital and by social capital. Some teachers leave fulltime classroom teaching either for jobs in unrelated fields or they depart the workforce all together. According to Ingersoll, (2001, 2003) others can remain working as teachers, but “migrate” to other schools. It is also argued that others may still leave the classroom temporarily, perhaps to have children, and then return to the classroom after a hiatus (Murnane, Singer, Willett, Kemple *et al.*, 1991). Yet some teachers leave for different jobs in the field of education (Anderson & Olsen, 2005).

Retirement is naturally assumed to be one of the primary reasons for teacher attrition. But research has shown that the number of teachers retiring from the profession is not a leading cause. In a study of teacher turnover by Richard M. Ingersoll (2003.), retirement was cited less often for leaving the teaching profession than ‘job dissatisfaction’ or ‘to pursue another job’. Thus, great number of teachers leave the profession altogether because they see no hope for change.

Job satisfaction or dissatisfaction is often cited and rendered important in both research on teacher attrition and teacher retention (Stockard & Lehman, 2004). Connolly, 2000; Ingersoll, 2003; Ingersoll & Smith, 2003; Heller, 2004; Stockard & Lehman, 2004 tried to understand the high teacher turnover rate among ‘beginning teachers’ by investigating the reasons and causes behind both teacher retention and teacher attrition. They found that the common problems identified by the majority of teachers include:

- job dissatisfaction;
- poor working conditions and low salary;
- inadequate support from parents, administration, colleagues and the public;
- discipline, management, and attendance problems;
- increasing class sizes (leading to increased in workloads);
- poor motivation of students; and
- lack of space for teachers to participate in key decisions affecting the school.

Particularly on the poor salary, studies by Brewer (1996) confirmed that higher wages reduce teacher quit propensity. The researchers therefore offer suggestions on school policies, school administration, and mentoring programs between senior teachers and novice teachers.

Another group of researchers examine the extent to which teacher-principal relationships and interpersonal competence affect their job satisfaction (Roach, 1991). Regarding the leadership styles and the roles of principals or headmasters, research reveals that the principal’s affinity-seeking strategies and cooperation with teachers improve the interpersonal relationships between principals and their teachers, and that teacher job satisfaction is strongly associated with teachers’ perceptions of their principals’ leadership styles and decision-making strategies.

Another important finding has been that teachers’ decisions whether to stay or leave the teaching profession are highly influenced by their age. The relationship between teachers’ age/experience and their turnover has been found to follow a U-shaped curve. This means the rate of teacher attrition is high among young teachers; it stabilizes through the mid-career period and rise again before retirement years (among those with longer years of experience in

the teaching profession). Although there is some disagreement as to why this is the case, researchers have consistently found that younger teachers have very high rates of departure. Subsequently, as those remaining “settle in,” turnover rates decline through the mid-career period and, finally, rise again in the retirement years (e.g., Bobbitt et al., 1994; Grissmer & Kirby, 1987, 1992, 1997). Moreover, because the distribution of the age of teachers is skewed upward (i.e., older teachers significantly outnumber younger teachers) many analysts have concluded that retirement due to a rapidly “graying” teaching workforce is the most significant factor behind teacher turnover, teacher shortages, and school staffing problems (e.g., Grissmer & Kirby, 1997).

But there is overwhelming evidence in contemporary educational research that the main factors that affect teacher attrition are job satisfaction, salary levels, basic working conditions (including class size, facilities, and availability of textbooks), and teachers’ relationships with each other and their principal. These, in combination with other factors, influence teachers’ decisions to stay in a school or to leave.

SECTION 4

Survey Results

4.1 Data

As mentioned in the introductory section, data were gathered through a questionnaire survey. A thousand questionnaires were distributed to teachers in all the ten administrative regions in Ghana. Out of the thousand questionnaires 890 were completed and returned. The survey results presented in this section are, therefore, based on the data gathered from the 890 questionnaires. Table 5 below shows the distribution of the completed questionnaires by region.

Table 5 Distribution of Survey Questionnaires Completed & Returned by Region

Region	Total Number of Questionnaires completed & returned	Percent (%)of Total Questionnaires Returned
Western	85	9.6
Central	137	15.4
Accra	93	10.4
Eastern	121	13.6
Volta	91	10.2
Ashanti	123	13.8
Brong Ahafo	94	10.6
Northern	85	9.6
Upper West	32	3.6
Upper East	29	3.3
Total	890	100

Source: Survey Data

The questionnaire was divided into four sections as follows: Section A deal with general/personal information on respondents including location, sex, rank, age, marital status, number of children, number of dependants, etc); Section B gathered information on respondents' educational qualification; Section C covered issues relating to employment, work experience and job satisfaction. The fourth section (Section D) was designed to solicit ideas on how to reduce teacher attrition in Ghana.

4.2 Key Findings from the Survey

4.2.1 Demographic Profile of Respondents

The majority (60%) of the respondents were between the ages of 36 and 60 years. The rest (40%) were between the ages of 15 and 35 years. As shown in Table 6 below, only one percent of the respondents fall into the youth category (i.e. 15-24 years). In terms of the distribution of the sample by sex, about two thirds were males and one third of the respondents were females. Nearly three quarters of the respondents were married and a fifth reported that they were single (Table 7). Just about 70 percent of the respondents have between one and three children (Table 8).

Table 6 Age distribution of Respondents

Age	Frequency	Percentage
Youth (15 – 24 years)	13	1.6
Young People (25-35)	307	38.9
Adults (36-60)	470	59.5
Total	785	100

Source: Survey Data

Table 7 Marital Status of Respondents

Marital Status	Frequency	Percentage
Married	657	74.8
Single	185	21.2
Divorced	12	1.4
Widowed	16	1.8
Other	7	0.8
Total	877	100

Source: Survey Data

Table 8 Number of Children of Respondents

Number of Children	Frequency	Valid Percentage
1	122	18
2	196	29
3	157	23.2
4	109	16.1
5	55	8.1
6	18	2.7
7 +	19	2.9
Total	676	100

Source: Survey Data

4.2.2 Educational Qualification and Professional Status

A little over half of the respondents reported that they hold first degree as shown in Table 9. About a fifth holds Diploma in Education; and about 19 percent hold certificates A or B. Just a few of them hold GCE ‘O’ level or SSS (1.4%) and master’s degree (3%). Almost all the respondents (95%) are professional teachers (Table 10). A very large majority of the respondents (90%) reported that they intend to further their education at the tertiary level ranging from bachelors to doctorate degrees (Table 9).

Table 9 Respondents’ current levels of Qualification

Qualification	Frequency	Percentage
GCE ‘O’ Level	7	0.8
SSS Certificate	5	0.6
Teachers’ Certificate A	162	18.7
Teachers’ Certificate B	5	0.6
Diploma in Education	185	21.3
Bachelor’s Degree	447	51.3
Masters Degree	26	3.0
Other Qualification	32	3.7
Total	869	100

Source: Survey data

Table 10 Professional Status of Respondents

	Frequency	Percentage
Professional teacher	837	95.1
Non-professional	42	4.9
Total	880	100.0

Source: Survey data

4.2.3 *Teacher Attrition*

The primary purpose of the study was to gather information on teacher attrition. Since our respondents were teachers who are still in the teaching profession, the questionnaire were designed to find out what could be the possible reasons for them to leave the teaching profession for other ‘more lucrative’ jobs in other sectors.

The questions to solicit this information focused on four main themes namely:

- (1) Plans for further education
- (2) Plans after further education
- (3) Wage levels and access to non-wage benefits and
- (4) Job satisfaction.

4.2.4 *Plans for further education*

Our analysis shows that the majority (90%) of the respondents intended to further their education (Table 11). This is an indication that most teachers want to acquire higher knowledge which may have positive effects on the quality of education. However, it may also be an indication of the rate at which teachers want to leave the classroom (even if for a short period). As discussed below, most teachers want to pursue higher education in the universities either for bachelor’s degree or for a higher qualification. This implies that teachers who pursue further education on full time basis are likely to stay out of the classroom for between two and five years depending on the course of study.

Table 11 Plans to Further Education

Do you intend to further your education	Frequency	Valid Percentage
Yes	783	90.2
No	85	0.8
Total	868	100

Source: Survey Data

However, it is interesting to note that nearly 44 percent of the respondents said they intend to pursue higher education in the same field (i.e., the education field); 11.2 percent in general arts; 13.3 percent in science; 4.5 percent in technical and 18.5 percent in business; 3 percent in home economics and 6 percent in other fields (see Table 12). The majority (68.2%) intend to apply for a “study leave with pay” to go for further studies. Again, this is an indication (albeit

a weak indication) that the majority of the teachers are likely to return to the classroom when properly motivated (Table 14).

Table 12 Preferred Field of Study for Further Education

Preferred Field of Study	Frequency	Valid Percentage
Education	338	43.5
General Arts	87	11.2
Science	103	13.3
Technical	35	4.5
Business	144	18.5
Home Economics	23	3
Other	47	6
Total	777	100

Source: Survey Data

Table 13 Table 4.8: Plans to apply for Study Leave with Pay

Do you plan to apply for study leave with pay?	Frequency	Valid Percentage
YES	512	68.3
NO	238	31.7
Total	750	100

Source: Survey Data

Approximately half (50.2%) of the respondents reported that they want to further their education “to gain knowledge in my field”; Just about 6% reported that they want to further their education so that they can leave the class for another job in the education sector; 17% intend to pursue further education so that they can be promoted to higher ranks in the teaching profession; 22.4% want to pursue further education to enable them to leave the teaching profession for other professions (see Table 14below).

Table 14 Reasons for Further Education

Reason	Frequency	Valid Percentage
To gain further knowledge in my field	392	50.2
To enable me leave the classroom for another job in the education sector	48	6.1
For promotion to higher ranks in the teaching profession	135	17.3
To enable me to leave the teaching profession for another job	175	22.4
Other reasons	31	4.0
Total	781	100

Source: Survey Data

4.2.5 Plans after further Education

To the question “*Do you intend to return to the classroom/teaching profession after further studies?*” 64% of the respondents said “YES”. This is an indication that the majority of teachers may remain in the teaching field if they are adequately motivated (see Table 15). But over a third (35.6%) of teachers would like to leave the teaching profession for other sectors.

Table 15 Plans after further education

Do you intend to return to the classroom or teaching profession?	Frequency	Valid Percentage
YES	502	64.4
NO	275	35.6
Total	777	100

Source: Survey Data

The respondents who do not intend to return to the teaching profession after further education were asked to indicate what sector they intend to move to. The results show that about 60% of them would want to take a job either in the finance sector or in the community, social and personal sectors. The remaining 40% are distributed fairly across the other major economic sectors as shown in Table 16 except for the transport sector where only one percent of the respondents indicated that they would prefer to work after their further education.

The preferred alternative occupations/professions mentioned included accounting, finance, banking, human resource management, administration, advertising, agriculture, animal husbandry, social work, the army, civil service, building contractor, business, community development, civil engineering, trade, catering, information and communication technology, construction, consultancy, manufacturing, journalism, insurance, university lecturer, medicine, NGO, mining engineering, musician, public relations, politics, nutritionist, research, self-employment, statistician, waste management, and sports.

Table 16 Preferred Sector of Employment after further education for those who will not return to the Classroom

<i>Economic Sector</i>	<i>Frequency</i>	<i>Valid Percent</i>
Agriculture	29	8.1
Manufacturing	24	6.7
Mining	22	6.1
Utilities	18	5.0
Construction	19	5.3
Trade	27	7.5
Transport	4	1.1
Finance	105	29.2
Community & Personal Services	111	30.9
Total	359	100

Source: Survey data

Responses to further questions relating to attrition indicated that as high as half of the teachers would like to quit the teaching profession before they retire at the age of 60 years. In response to a specific question: ***“Do you have plans to leave the teaching profession before you retire at the age of 60 years?”*** 50% of the respondents said they would leave before they retire. The reasons they gave for their plans to leave the teaching profession included the following:

- For higher pay (24.8%)
- For improved conditions of service (59.8%)
- I just want to change profession (6.5%)
- Other reasons (8.9%)

As we can see from the responses outlined above, a higher proportion of teachers care more about improved working conditions (almost 60%) compared to those who would like to quit for higher pay (about 25%).

The majority of the respondents (84.5%) indicated that they have never taken any job apart from teaching. That means just about 15% have had some experience in other professions (see Table 17 below).

Table 17 Work Experience in other Professions

<i>Have you taken another job in your working life apart from teaching?</i>	<i>Frequency</i>	<i>Valid Percent</i>
YES	131	15.5%
NO	715	84.5
Total	846	100

Source: Survey data

4.2.6 Wages

As discussed earlier in the literature review in Section 3, low wage has been identified as one of the reasons why teachers leave the teaching profession for ‘greener pastures’ in other sectors. Reasonable level of wages is an important instrument for motivating teachers to remain in the classroom. But teachers in Ghana earn relatively low salaries compared to their counterparts in other African countries and those holding comparable qualifications/positions in other sectors of the economy.

The gross monthly salaries reported by the respondents ranged from GH¢74 (US\$52)⁹ to GH¢831(US\$589). As shown in Table 4.13, 80% of the respondents earn GH¢500 (approximately US\$354) per month or lower. The average gross monthly salary was GH¢405 (or approximately US\$ 287 per month in 2009).

⁹ The average exchange rate in 2009 was GH¢1.41 to US\$1 in 2009.

Table 18 Gross Monthly Wages

Gross Monthly Wage(GH¢)	Percent
Below 100	0.9
101 - 200	1.8
201 - 300	23.3
301 - 400	18.2
401 - 500	36.2
501 - 600	11.7
601 - 700	5.6
700+	2.3
Total	100

Source: Survey data

Wages and benefits play important role in staff retention especially in developing countries like Ghana. The survey respondents were asked to indicate whether they are satisfied with their salary or not. As shown in Table 19 below 98 percent said they were dissatisfied with their current salaries. The following statements were used to describe salaries in the teaching profession:

- *“The take home salary cannot take me home”*
- *“The level of inflation erodes the value of our earnings”*
- *“The salary cannot pay children’s school fees and meet other household expenditure”*
- *“The salary cannot make ends meet”*
- *“The salary cannot afford me three square meals, descent accommodation and transport cost in a month. I am heavily indebted”*
- *I struggle to save towards the future, because the salary is meager”, among others, were stated.*
- *“The salary does not commensurate my qualification and workload”,*
- *“My colleagues in other sectors are earning higher”.*

Table 19 Satisfaction with Pay

	Frequency	Percentage
Yes	15	1.8
No	834	98.2
Total	849	100.0

Source: Survey data

4.2.7 Access to Benefits

Non-wage benefits are essential components of the reward system in Ghana. Some of these benefits are statutory. These include social security contribution, annual leave and maternity. Other benefits such as free or subsidized transport, free or subsidized housing, interest free loans, and medical care are usually negotiated between workers or unions and employers in both the public and private sectors.

Respondents were asked to indicate whether or not they have access to selected benefits (both the statutory and non-statutory benefits). The results are presented in Tables 20, 21, and 22 (for some statutory benefits).

Table 20 Access to Social Security

Access to Social Security	Frequency	Valid Percent
YES	703	81.3%
NO	162	18.7%
Total	865	100

Source: Survey data

Table 21 Access to Paid Annual Leave

Access to Paid Annual Leave	Frequency	Valid Percent
YES	119	13.7
NO	753	86.3
Total	872	100

Source: Survey data

Table 22 Access to Paid Sick Leave

Access to Sick Leave	Frequency	Valid Percent
YES	384	47.7
NO	423	52.3
Total	807	100

Source: Survey data

As shown in the tables above, over 80% of the teachers said they have access to social security (Table 20); about 14% have access to paid annual leave (Table 21); approximately

48% said they have access to sick leave (Table 22). It is important to note the small percentage of teachers who have access to annual leave. Unlike other categories of workers teachers leave coincide with school vacations. It is also important to note that the Ghana Education Service has a study leave policy for all employees/teachers in the Service subject to some conditions. The conditions include the number of years in service and the chosen field of study as well as the current station of the employee (rural or urban). The policy seeks to support teachers to pursue courses of direct relevance to the education sector but most importantly for the upgrading of knowledge.

It is presumed that teachers who pursue further studies in education-related subjects are likely to return to the classroom compared to those who opt for banking and finance, for example. Nearly 46% of teachers covered by this survey indicated that they have benefited from study leave with full pay and 60% said they are entitled to study leave with pay.

Apart from study leave with pay teachers' access to other non-statutory benefit is quite poor. As shown in table 4.17 only 7% of the respondents said they have access to free/subsidized transport; 7% has access to child care services; 11% have access to subsidized/free housing; and 14% have access to medical care.

Table 23 Access to Selected Non-Statutory Benefits

Type of Benefit	YES (%)	NO (%)	Total
Free or Subsidized Transport	7	93	100
Free or Subsidized Housing	11	89	100
Medical Care	14	86	100
Child Care	7	93	100
Entitled to Paid Study Leave	60	40	100
Have benefited from Study Leave with pay	46	54	100

Source: Survey data

4.2.8 Job Satisfaction

Employee retention and job satisfaction are closely linked. Studies have established that pay and benefits, communication motivation, justice and leisure time, all seem to play part to whether employees are satisfied with their jobs or not (see Brewer, 2000; Kirby, 2000; and Tristram, 2000),

In this survey, respondents were asked, first, to indicate whether or not they are satisfied with their job as a teacher and to indicate the degree of satisfaction. The results are presented in Tables 4.18 and 4.19 below. As shown in Table 4.19 and 4.20 nearly three quarters (72%) of the teachers said they are either “Dissatisfied” (41%) or “Very Dissatisfied” (31%). The main reasons for the dissatisfaction are the low level of wages and poor conditions of service in the education sector.

It is therefore not surprising that when the teachers were asked to indicate whether they would recommend the teaching profession to their children or relatives three-quarters (75%) said “NO” (Table 26) .

Table 24 Are you satisfied with your work as a teacher

Responses	Frequency	Percentage
Yes	232	27
No	604	72
Total	836	100

Source: Survey Data

Table 25 Respondents’ levels of satisfaction with the teaching profession

Levels of satisfaction	Frequency	Percentage
Satisfied	183	22
Very satisfied	37	4
Dissatisfied	344	41
Very Dissatisfied	266	31
Not know /Indifferent	19	2
Total	849	100

Source: Survey data

Table 26 Would you recommend the teaching profession to your children or relatives

	Frequency	Percentage
Yes	213	24.8

No	646	75.2
Total	859	100.0

SECTION 5

Conclusion and Recommendation

5.1 Conclusion

This study examined teacher attrition in Ghana. The main research question that guided the study is: Why are teachers leaving the classroom? The two unions (GNAT and TEWU) which sponsored the study recognize the role of formal education and teachers in the social and economic development process. Attraction and retention of teachers in the classrooms are therefore extremely important to achieve the noble goal of “Education for All”.

Previous studies have identified low pay and poor working conditions as two major factors that are pushing teachers out of the classrooms. In Ghana teaching is regarded as a “low status” profession due mainly to the low pay and the low living standards among teachers.

Our analysis confirmed that teachers generally earn low salaries. Some teachers who participated in this survey reported salaries as low as GH¢74 (US\$52) per month. The survey respondents reported an average monthly salary of GH¢405 (or approximately US\$ 287 per month in 2009). It was therefore not surprising that 98% of the teachers covered by this survey said they are not satisfied with their current pay.

With regard to benefits our analysis shows that, apart from paid study leave and social security, teachers generally do not have access to other benefits such as medical care, free or subsidized housing, child care services, and free or subsidized transport. Since paid study leave remains the only benefit available to teachers many teachers take advantage of it. One in ten of the teachers covered by this survey said they intend to further their education. The reason commonly cited for the plans to further their education was “to acquire higher knowledge”. But it may also be the case that it is an avenue available to teachers to take a break from the poor working conditions in which they find themselves especially for those in rural and deprived areas.

Depending on the course of study a teacher on study leave with full pay can stay out of the classroom for between one and five years. This study shows that the majority (64%) of

teachers who further their education intend to return to the classroom. This is consistent with our observation that many teachers use the study leave as an avenue to take a break from the classroom and the poor working conditions. But it is also important to underscore our finding that that over a third of teachers (36%) have plans to leave the classroom for other more lucrative jobs after study leave either for higher pay, for improved conditions of service, or just to change profession.

The low pay and poor working conditions act to lower morale among teachers. Seventy-two percent of the respondents said they are either “dissatisfied” or “very dissatisfied” with their job as a teacher and 75% said they will not recommend the teaching profession to their children or their relatives.

GNAT and TEWU sponsored this survey with the aim of gathering information that can provide the basis for engaging the relevant authorities in the educational sector to work towards reducing the rate at which teachers are leaving the classrooms.

Some progress has been made in terms of growth in schools and access to education across the country. This may be a reflection of Ghana Government’s commitment to the achievement of the “Education for All” initiative within the framework of the Growth and Poverty Reduction Strategy. However, while policies, strategies and measures have improved access to education and teachers’ workloads have increased, teachers see no corresponding improvement in their conditions of service. It is becoming a lot harder to retain teachers in the service as the economy of Ghana grows and other social and economic sectors become more competitive in terms of pay and other conditions of service.

The findings presented in this report should be useful in the formulation, implementation and review of policies aimed at reducing teacher attrition in Ghana. It is only when the right policies are implemented and appropriate measures are taken to attract and retain teachers in the classroom that Ghana can meet the noble goal of “Educational for All”.

5.2 Recommendations

Given the level of teacher dissatisfaction with the teaching profession as shown by the result of this survey, reversing the current trend of teacher attrition rate in Ghana and retaining teachers in the classrooms will be a daunting task. However if the goal of “Education for All” in Ghana is to be achieved, stakeholders in education must adopt and implement measures that in the short to medium term will reverse the current rate at which teachers are leaving the classrooms.

This survey has shown that the educational authorities have been fantastic in attracting young people to the teaching profession. The payment of allowances to the teacher-trainees and the study leave with pay system has gone a long way to attract young and brilliant people to take up teaching appointments. However, the authorities in the education sector have done very little to ensure that teachers trained at the expense of the taxpayer are retained in the classrooms to serve the purpose for which they were trained. It is instructive to note that the Ghana Education Service has no policy on retaining teachers in the classrooms where they are most needed.

This study recommends that government and for that matter the GES adopt a policy on the retention of teachers in the classrooms. The policy should recognize that once teachers are assisted through the ‘Study with Pay Programme’ to pursue further studies, they (teachers) become marketable and attractive to other sectors of the economy where remuneration is better than in the teaching service. To retain such teachers in the classrooms, their pay and other conditions of service must be raised to levels commensurate with their newly acquired skills. It is not enough to assist teachers to acquire new skills but the ultimate should be to have them well-trained and motivated. The ‘Study Leave with Pay’ system must be complemented by other policies that motivate teachers to stay in the classrooms.

Government must also work not only to improve the educational infrastructure in all parts of the country but equally important are the social amenities particularly in rural and deprived communities. Teachers are increasingly refusing postings to areas where social amenities are poor or non-existent; where they have very limited opportunity for personal development. Teachers who accept postings to such deprived communities do so only when all other options including leaving the teaching profession have not worked.

While government makes the effort to improve facilities in all parts of the country, the authorities may have to compensate teachers who accept to stay in deprived communities in a more significant way. The current scheme of compensation appears not to be enticing enough. For the scheme to work and for the education system to retain teachers in deprived communities, those teachers must see significant differences between their pay and that of other teachers.

It is also important that government and the GES fight the canker of low morale and high dissatisfaction among teachers. It would be difficult to retain teachers in the classroom when more than two-thirds of all teachers are dissatisfied with their work as teachers. As this survey has shown, a greater source of dissatisfaction among teachers comes from their pay levels. Nearly every teacher is dissatisfied with their pay levels. Raising the level of remuneration in the teaching profession as a whole will be a huge asset in the fight against teacher dissatisfaction and low morale. Significant improvement in teachers' pay will be the most important step towards stemming the high rate of teacher attrition rate in Ghana.

Perhaps, addressing the problem of low morale within the teaching profession may require more than mere increases in the teachers' pay. While low pay within the profession has contributed significantly to lowering the status of teachers in society, the continued decline in the status of teachers has assumed perceptive dimension. The standard or false assumption that teachers are the worst paid not only in the public service but also in the country as a whole appears to have taken hold for which teachers are actually leaving the classroom for other professions that pay significantly lower than the teaching profession.

Dealing with this perception will be a crucial part of the fight to retain teachers in the classroom. It will require sustained public education to counter the wrong perception not only among teachers but equally importantly, among the public in general. The unions operating in the education sector can play an important role in this direction. Specifically, they can use their network of branches across the country to educate their members to change their perception.

References

- Abena, D. Oduro, (2000)**, *Basic Education in Ghana in the Post-Reform Period*.
- Anderson, L., & Olsen, B. (2005)**. *Studying the career pathways of urban teachers in Los Angeles: Who stays, who leaves, who shifts into other urban education work?* Los Angeles: Institute for Democracy, Education and Access, Center X UCLA.
- Bobbitt, S., Leich, M., Whitener, S., & Lynch, H. (1994)**. *Characteristics of stayers, movers, and leavers: Results from the teacher follow up survey, 1991-92*. Washington, DC: National Center for Education Statistics.
- Brewer, D. J. (1996)**. Career paths and quit decisions: evidence from teaching. *Journal of Labor Economics*, 14(2), 313–339, Development Data Group, The World bank, 2008
- Grissmer, D., & Kirby, S. (1987)**. *Teacher attrition: The uphill climb to staff the nation's Schools*. Santa Monica, CA: Rand Corporation.
- Grissmer, D., & Kirby, S. (1992)**. *Patterns of attrition among Indiana teachers, 1965-1987*. Santa Monica, CA: Rand Corporation.
- Grissmer, D., & Kirby, S. (1997)**. Teacher turnover and teacher quality. *Teachers College Record*, 99, 45-56
- Guarino, C., Santibañez, L., Daley, G., & Brewer, D. (2004)**. *A review of the research literature on teacher recruitment and retention* (Technical Report No. TR-164-EDU). Los Angeles: RAND Corporation.
- Heller, D. A. (2004)**. *Teachers wanted: Attracting and retaining good teachers*. Alexandria, VA: Association for Supervision and Curriculum Development
- Ingersoll, R. (2001)**. Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.
- Ingersoll, R.(2003)**. *Is there really a teacher shortage?* Seattle, WA: Center for the Study of Teaching and Policy.
- Ingersoll, R.M. & Smith, T.M (2003)**. The wrong solution to teacher shortage. *Educational Leadership*, 60 (8), 30-33, Ministry of Education and Ghana Education Service (GES), Ghana
- Murnane, R., Singer, J., Willett. J., Kemple, J., & Olsen, R. (Eds.). (1991)**. *Who will teach?: Policies that matter*. Cambridge, MA: Harvard University Press.
- Nkrumah, K. (1967)**. *Dark Days in Ghana*. New York: International Publishers
- Roach, K. D. (1991)**. Principal's use of power, behavior alteration strategies and affinity-seeking strategies: Effects on teacher job satisfaction. *World Communication*, 20, 23-37.

Stockard, J., & Lehman, M. B. (2004). Influences on the satisfaction and retention of 1st-year teachers: The importance of effective school management. *Education Administration Quarterly*, 40, 742-771. UNESCO Institute for Statistics on Ghana

World Bank (1996) *Basic Education Sector Improvement Program* Report No. 15570-GH, Washington, The World Bank