

## **Agatha Inkoom**

*Lecturer & Head, Dept. of Basic Education, Faculty of Education, University for Development Studies,  
P. O. Box TL1350, Tamale-Ghana. Tel: +233 547894587/202240688, email: [agathainkoom@yahoo.co.uk](mailto:agathainkoom@yahoo.co.uk)*

&

## **Mohammed Bello Zuberu**

*Lecturer, Department of Basic Education Studies, Faculty of Education, University for Development Studies,  
P. O. Box TL1350, Tamale-Ghana, Tel: +233 0243282836/0268282836, email: [sultanbello02@yahoo.com](mailto:sultanbello02@yahoo.com).*

### **An assessment of the status of teaching and learning at the lower primary level in the Tamale metropolis**

#### **Abstract**

*The purpose of this article is to assess the status of effective teaching and learning at the lower primary level and to stimulate and inform discussion about teaching and learning at the lower primary and to broaden understanding of opportunities for sustainable school climate.. A descriptive survey was adopted for the study. A 20 item questionnaire was administered to 40 head teachers and 83 teachers drawn from four circuits' coeducational basic schools at two different localities; namely, urban and rural areas within the Tamale metropolis. The data gathered was cleansed, coded and analysed using Statistical Package for Service Solution (SPSS). The statistical tools used in the analysis consisted of both descriptive and inferential statistics. The open ended data was also categorised and recorded according to themes for emergent patterns. The study found that the level of teachers' content knowledge, pedagogical knowledge as well as teachers' knowledge of syllabus and adequate lesson preparation skills lead to effective teaching and learning. The study also found the extent to which certain factors enhance the effective teaching and learning. The finding provided sufficient information to conclude that teacher's versatility in the content area as well as in the syllabus and pedagogy, though essential to effective teaching education but are not the sole agents of quality education delivery. Based on the conclusion drawn it was recommended that Circuit Supervisors should make frantic efforts in ensuring that teachers practice what they have learnt during in-service training programmes since there seem to exist a gap between what is learnt and what is practiced..*

#### **Introduction**

In many countries the roles and functions of schools are changing and so is what is expected of teachers. Teachers are expected to teach in increasingly multicultural classrooms; integrating all dimensions of effective teaching in their classrooms and to engage more in planning within evaluative and accountability framework (OECD, 2000). Effective teaching is characterised by teachers who command a repertoire of best practices and who recognise the situational nature of teaching. Tightly tied to the idea of best practices is the idea that all acts of teaching are situational and methods that work for one group of students may be inappropriate for another group. Effective teachers therefore must have the ability to accurately diagnose, a teaching learning situation, select a teaching strategy to use and then monitor and assess its success (Arends, Winitzky & Tannenbaum, 2001).

Effective teaching as portrayed in a number of studies brings about relatively high student time on task that is engaged in learning activities. Students who are actively engaged in relevant learning activities tend to learn more than students who are not engaged. Studies of time-on-task have pointed out that

classrooms can be managed to increase the time students spend on actual learning activities. However, students learning is not simply the function of time spent on academic work, other variables such as the suitability of the activity, the student's success or failure in the tasks attempted, and the motivating characteristics of methods and materials, are also important (Rohrkemper, & Corno, 1988; Sadowski, 1998; Brewster, & Fager, 2000). Teaching is simply too complex to know perfectly and it grows more complex everyday as such, teaching is situation driven, which suggests that what may be effective in one school or classroom situation may be ineffective in another. For example, certain type of teachers and teaching methods work well with some kind of students but not with others (Arends, Winitzky & Tannenbaum, 2001; Ornstein & Levine, 2003).

The need for effective teaching has been necessitated by the complexity of teaching and individual variation among students. Effective teaching is therefore, not like "one-size-fit-all" socks (Daiz, 1997). Teacher must muster variety of perspectives and strategies, and be flexible in their application. This requires two key ingredients, (1) professional knowledge and skills and commitment and motivation.

The attributes of an effective teacher translates into effective teaching. Effective teachers have good command of their subject matter and a solid core of teaching skills. They have excellent instructional strategies supported by methods of goal setting skills, instructional planning and classroom management. They know how to motivate, communicate and work effectively with students from culturally diverse background. They also understand how to use appropriate level of technology in the classroom (Santrock, 2004). An important aspect of effective teaching is the teacher's ability to keep the class as a whole working together and oriented towards a classroom task. Effective teachers establish and maintain an environment in which learning can occur. To create this optimal learning environment, teachers need a repertoire of strategies for establishing rules and procedures, organising groups, monitoring and placing classroom activities and handling misbehaviour (Algozzine, & Kay, 2002; Emmer & Strough, 2001; Lindberg & Swick, 2002; Martella, Nelson, & Marchand-Martella, 2003). Questioning is an important ingredient in effective teaching. Several studies have identified questioning skills as an important aspect of effective teaching (Ornstein & Levine, 2003).

Quality education is incomplete without quality inputs, quality delivery process and quality output. Therefore, effective teaching includes 'learners who are healthy, well-nourished and self motivated to participate and learn on a continuous process, supported by their families and communities' (Republic of Ghana, 2002, p. 46). Working effectively with students from culturally diverse background is an important step in effective teaching (Republic of Ghana, 2002; Santrock, 2004). In today's world of increasing intercultural contacts, Effective teaching demands that teacher should have knowledge about people from different cultural backgrounds and being sensitive to their needs (Cushner, 2003; Johnson & Johnson 2002). Quality education also includes a content that is reflected in relevant curricula and materials for the acquisition of basic skills and knowledge, especially in literacy, numeracy and skills for life (Jansen, 1995). Jansen (1995) further elaborates that the process through which trained and motivated teachers use child-centred teaching approaches in well- managed classrooms and schools, in addition to skilful assessment also culminates in quality education. He also highlights, the effective use of school time, right attitudes towards learning, effective supervision, and discipline, also account for good quality in education.

In spite of the recent progress made in the educational sector in the past two decades, there are however, fundamental challenges and disparities in terms of educational quality, equity, and learning outcomes in the various regions largely fuelled by poverty, food insecurity, and poor quality service delivery. There is inequitable distribution of resources in this sector, poor quality and unacceptable learning outcomes among Ghana's primary and junior high school completers, teacher deployment and teacher discipline in rural areas remains a great challenge, particularly in Northern and the Western regions of Ghana (Casely-Hayford, 2013). The issue of quality teaching staff is an essential component of effective teaching. It is in this view that the Education Reform Review Committee of the Ministry of Education, Science and Sports, acknowledged the importance of the teacher as the

quality of human capital that any nation depends on when it comes to the quality of education (Ministry of Education, 2004).

Quality education dwells on the provision of quality inputs, delivery process and output. It includes:

- teaching by a self-motivated qualified teacher,
- appropriate pedagogy,
- appropriate teaching and learning resources as well as infrastructure,
- skillful assessment,
- effective use of time during contact hours,
- effective supervision,
- effective use of Information and Communication Technology (ICT) as a tool for enhancing teaching and,
- Teachers with qualified background (Ministry of Education, 2003).

In Ghana, challenges confronting the provision of quality education for all has been pursued at all levels. The government in particular is working hard to provide equal access to good quality education. A number of policy reforms and interventions have been put in place to address the goal of improving access to Ghana's school-aged population; however, improving instructional quality and student achievement remain critical challenges (USAID, 2009). Wang, Haertel and Walberg (1993) argue that classroom management and classroom interactions had effects similar to students' cognitive competencies and their home environment. Scheerens and Bosker (1997) concluded that characteristics of instruction have a greater effect on student achievement than those of the school environment. However, researchers agree that there is no single, well-defined best way of teaching.

The ongoing debate over falling standards in education compounds the issue of assessment as not only for students and learning, but also for the teachers and teaching. Palomba, and Banta (1999) refer to assessment as "the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving learning and development". It therefore stands to reason that research must necessarily contribute some recommendations to the issues of fallen standards. It is therefore no wonder that the shift now at all the levels of the education system is the suggestion that education must be development oriented and sustainable (Akyeampong, 2009). This again comes with challenging, unfamiliar curriculum materials for which the teacher is to be exposed to.

### **Statement of the Problem**

Since the Dakar World Forum on Education in 2000, significant progress has been made in Africa as a whole and Ghana in particular regarding the attainment of the Education for All (EFA) goals. Improvements have been made in the expansion of early childhood care and education, free and compulsory primary education and achievement of gender parity. Available statistics show that pre-primary gross enrolment ratios (GER) increased by 5% in nine years. In Ghana a lot of interventions have been made by government and non governmental agencies to ensure that children receive quality education regardless of their status in the society. In spite of this, about 40% of the primary school leavers cannot read. It is assumed that 40 per cent of pupils having attended grade 5 of primary school, can neither master the basic competences needed to avoid a relapse into illiteracy nor have the basic skills required for job performance. While it would appear that progress has been made in enrolment, the major gap remains in the quality of education (teaching and learning). It is against these concerns that many question the efficacy of the interventions made by government and nongovernmental agencies in the Northern region and wanted to know the actual status of effective teaching and learning at the lower primary schools within the Tamale metropolis.

### **Theoretical Perspective**

The principle of constructivism was at the centre of William James and John Dewey's philosophies of education. Constructivism emphasises that individuals actively construct knowledge and

understanding. In the constructivist view, teachers should not attempt to simply pour information into children's mind; rather children should be encouraged exploring their world, discovering knowledge, reflect and think critically (Brook & Brooks, 2001). The trends in educational reforms are to teach from constructivist perspectives (Hikey, Moore & Pellegrino, 2001). For too long in the history of education, children have been required to sit still, be passive learners and rote memorise irrelevant as well as relevant information (Aboagye, 2002).

The society contributes to the development of higher mental functions of children. These functions are purposeful. Children internalise values and knowledge by interaction with significant people in their lives such as the parents, siblings, teachers and peers who provide the social context in which children's higher mental function develops. Teachers and school along with the family play a pivotal role in children's cognitive development (Crowl, Kaminsky, & Podell, 1997; Vigotsky, 1981; Rogoff & Wertsch, 1984; Wertsch, 1991). This implies that effective teaching plays a pivotal role in the cognitive development of children. Additionally, Guidance and Counselling services available are integral parts of effective teaching since the services are geared towards solving problems of discipline and delinquency in the school and assists teachers to develop the skills in knowing, helping and handling students in their emotions (Chauhan, 2003; Taylor & Buku, 2006; Oladele, 2000).

These assumptions can be explained within the context of the Whole School Development (WSD). The WSD in Ghana is the Ghana Education Service (GES) intervention strategy for achieving the objectives of FCUBE. The WSD programme operated in line with the existing structures of the GES headquarters, regions and districts. At the regional and district levels, operational structures consist of the District Support Teams (DSTs) and Zonal co-ordinators engaged in the management of the intervention. The DSTs were made up of three groups of consultants in the three key FCUBE areas: quality of teaching and learning, access and participation, and management efficiency (GES WSD Report, 2004). The intervention sought to promote the following:

- (a) Child-centred primary practice in literacy, numeracy and problem-solving with the view to improve the quality of teaching and learning in basic school classrooms;
- (b) Community participation in education delivery;
- (c) Competencies of teaching and learning through school-based in-service training;
- (d) Participatory planning and resource management at school and district levels
- (e) Improve efficiency in resource management (GES WSD Report 2004)

At the heart of the WSD process in Ghana is the provision of support to head teachers and teachers to improve the quality of teaching and learning in schools. This focus is rooted in the belief that quality teaching provided by competent teachers will result in effective teaching (WSD Training Programme Document, 1999). To achieve quality schooling education, WSD workshops for head teachers and district support personnel focus their attention on three instructional areas for improvement - literacy, numeracy and problem solving. The training also places considerable emphasis on child-centred pedagogy, the use of appropriate teaching and learning materials, and the use of the local environment as an important learning resource (WSD Training Programme Document, 1999). The WSD programme in Ghana also attempts to sensitize the school community into action to address the problem of poor pupil learning and achievement in many primary schools especially in rural settings and foster better organisation of in-service training (GES/WSD Report, 2004).

### **General Objectives of the Study**

The study intends to assess the actual status of effective teaching and learning at the lower primary schools within the Tamale metropolis.

### **Specific Objectives**

Specifically the study intends to

1. Examine various factors that limit the quality of effective teaching and learning
2. Assess the extent to which the quality of teaching certain subjects causes concern.

3. Ascertain the educational services available at the lower primary levels of education in the Tamale Metropolis

### **Research Questions**

The following research questions guided the study:

1. What is the status of effective teaching and learning at the lower primary within the Tamale metropolis?
2. What are the available educational services that support effective teaching at the lower primary levels of education in the Tamale Metropolis?
3. What factors have impact on the effective teaching and learning in the lower primary?

### **Delimitations**

The study focuses on effective teaching as measured by the national standard as enshrined in the whole school programme. The study focused on a particular group of participants in a particular context and therefore is not representative of the general group or population. There are therefore limitations on the ability to generalise findings of study.

### **Methodology**

The descriptive research design was used for the study. Descriptive research involves description of natural or man-made phenomena and their actions, changes over time, and has similarities with other phenomena. The design also involves collecting data in order to test hypothesis or to answer research questions concerning current status of subjects of study (Gall, Borg & Gall, 1996; Gay 1996). The design is said to be useful in collecting generalized information from almost any human population and it is said to produce high amount of data standardisation (Robson, 2002).

The total sample for the study is 123 which comprised of 40 Head teachers purposively selected and 83 lower primary classroom teachers randomly selected from four circuits within the Tamale metropolis. This is to ensure that information rich groups were adequately represented and offered participants equal chances of being represented (Leady & Ormrod, 2005; Sarantakos, 2005).

The main instrument used for data collection was the questionnaire. The questionnaire was administered to hundred and twenty (120) lower primary school classroom teachers and 30 head teachers. The questionnaire was divided into five major components – sections A, B, C, D and E. Section A focused on the biographic data of the participants, whilst section B elicited response on the school, section C, was on the curriculum, section D, was on the teachers and section E looked at teaching and learning in the lower primary schools.

To ensure the validity and reliability of the instrument, expert views were solicited to critique the initial pool of questions generated. This was done by first examining if the questions adequately related to the research question and if the questions were ambiguous. The final versions of the questionnaire were pre-tested. This was done because when an instrument is designed or adopted and modified, the validity and reliability of the new instruments should be established (Gall, Borg & Gall, 1996).

The data for the study was collected within three weeks. The data collected for the study was cleansed and coded accordingly and fed into a computer for the purpose of analysis. The Statistical Product for Service Solution (SPSS) was used to do the analyses.

**Research Question 1: What is the status of effective teaching and learning at the lower primary within the Tamale metropolis?**

This research question sought to find out the status of effective teaching and learning at the lower primary levels of education within the Tamale metropolis as measured by the Whole School Programme. Table 1-4 provide data for statistical analysis.

**Table 1: Academic Qualifications and Teaching Experiences of Respondents by Gender**

Teaching Experience	Male		Female	
	Frequency	Percentage	Frequency	Percentage
1-5 years	15	12.3	18	14.8
6-10 yrs	9	7.4	21	17.2
11-15yrs	8	6.6	9	7.4
16-20 yrs	5	4.1	6	4.9
more than 30 yrs	12	9.8	19	15.6
<b>Total</b>	<b>49</b>	<b>40.2</b>	<b>73</b>	<b>59.8</b>
Academic Qualification	Frequency	Percentage	Frequency	Percentage
Post Sec, Cert A	9	7.4	6	4.7
Diploma in Basic Education	26	21.3	25	20.5
Post Dip in Basic Education	4	3.3	30	24.6
B. A	3	2.5	0	0.0
B.Ed	7	5.7	11	9.0
BSc	0	0.0	1	0.8
<b>Total</b>	<b>49</b>	<b>40.2</b>	<b>73</b>	<b>59.8</b>

Source: Field survey (2014)

Table 1 shows that majority of the respondents (59.8%) were female and the rest were males. The Table also shows that about (17%) and (16%) of these females have taught for nearly 10 years or more than 30years respectively. This implies that majority of the female teachers have relevant teaching experience that could translate into effective teaching and learning. It could also be inferred that these female teachers are in the middle of the career or nearing retirement age. Further analysis of the Table revealed that majority (12.3%) of the male teachers in the Tamale Metropolis had teaching experience of between 1-5 years with about (10%) teaching for more than 30 years. Cumulatively, about (27%) of both males and females them had between 1 and 5 years working experience and almost (25%) of both male and females teachers in the Tamale metropolis had either more than 50 years or between 6-10 years experience in the teaching profession. This suggests that teachers in the Tamale metropolis are quite experienced if experience is synonymous to length of time one spends on the teaching job.

Similarly, a survey of the Table further reveals that about (21%) of male and females respectively had Diploma in Basic Education, while more females (25%) than males (3.3%) had Post Diploma in Education. It can also be seen from the Table that more females (9.0%) than males (5.7%) had Bachelors of Education Degrees. Cumulatively, about (42%) of both males and females had Diploma in Basic Education. In the same vein, about (43%) of both males and females had obtained qualification in either post Diploma in Basic Education, B.A, B.Ed. or BSc. This suggests that teachers at the lower primary levels of Education in the Tamale metropolis have requisite academic qualification to ensure provision of effective teaching and learning. Table 2 presents information on the enrolment of pupils in the lower primary classes within the Tamale metropolis.

**Table 2: Enrolment of Pupils in the Lower Primary Classes**

Schools	Primary 1			Primary 2			Primary 3		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	34	26	60	18	26	44	21	24	45
2	27	30	57	30	42	72	40	24	69
3	9	11	20	25	18	43	12	14	26
4	16	14	30	22	20	42	25	21	46
5	13	4	17	5	8	13	9	15	24
6	10	14	24	8	10	18	10	11	21
7	15	20	35	35	27	62	34	40	74
8	18	17	35	10	7	17	12	13	25
9	37	38	75	36	33	69	37	39	76
10	14	16	30	17	15	32	14	18	32
11	21	19	40	16	12	28	21	13	34
12	27	37	64	26	56	82	39	48	87
13	16	14	30	22	20	42	25	21	46
14	18	18	36	28	27	48	31	25	56
15	20	33	55	25	34	59	25	30	55
16	13	14	27	20	15	35	21	20	41
17	40	35	75	24	26	50	34	31	65
18	30	28	58	32	31	64	20	28	48
19	28	23	51	30	34	64	23	26	49
20	26	34	60	28	36	64	30	24	54
21	25	33	58	28	36	64	29	23	52
22	23	20	43	30	23	53	28	26	54
23	78	94	168	45	69	114	81	78	159
24	24	28	52	25	29	54	28	26	54
25	26	29	55	45	30	75	47	23	70
26	38	37	75	41	49	90	44	52	96
27	13	15	28	19	20	39	21	20	42
28	25	15	40	35	27	62	34	40	74
29	20	30	50	25	20	45	32	38	70
30	20	25	45	35	25	60	25	26	51
31	25	15	40	35	27	62	34	40	74
32	25	15	46	27	35	62	30	36	66
33	53	51	104	54	48	102	53	55	108
34	37	34	71	29	33	62	52	42	74
35	87	73	160	41	48	89	60	60	120
36	11	18	29	14	16	30	11	14	25
37	46	35	81	48	34	82	49	30	79
39	40	24	64	41	11	52	39	17	56
40	21	22	43	26	26	52	40	29	69

Source: Field survey (2014)

Similarly, Table 2 reveals that the population range of primary 2 classes in the Tamale metropolis is quite close for both boys and girls. Perhaps parents are heeding to the clarion call for equal educational opportunities for both sex. The summary of teachers' perception of the extent to which the quality of teaching of some subjects causes concern is presented in Table 3.

**Table 3: Hypothesis Test: Mean versus Hypothesised Value**

Variables	Primary 1	Primary 2	Primary 3
Normal Class Size	40	40	40
Mean Enrolment in the classes	57.2	60.7	54.6
Standard Deviation	25.7	27.8	31.9
Standard Error	4.1	4.5	5.1
Number of the Schools	40	40	40
Df	39	39	39
t-value	4.3	4.7	2.9
p-value (two-tailed)	0.001	3.96E.05	.0067

**p<0.05**

It can be seen from Table 3 that an ideal classroom should have an average enrolment of 35-40 pupils. In the sample schools, an average class size for primary ones, twos and threes is 57.2, 60.1 and 54.1 respectively. The standard Deviation (SD) indicates that there are variations in terms of class sizes. These differences ( $p<0.05$ ) were statistically significant. The summary of subjects taught at the lower primary levels is presented in Table 4.



**Table 4: Subjects Taught at the Lower Primary Levels**

	Primary 1				Primary 2				Primary 3			
	Taught		Not Applicable		Taught		Not Applicable		Taught		Not Applicable	
Subjects taught at the lower Primary	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
English Language 1	88	72.1	34	27.9	77	63.1	45	36.9	10	8.2	112	91.8
Ghanaian language and Culture	88	72.1	34	27.9	46	37.7	75	61.5	46	37.7	75	61.5
Social Studies	79	64.8	43	35.2	19	15.8	102	83.6	55	45.1	67	54.9
Mathematics	86	70.5	36	29.5	81	66.4	41	33.6	71	58.2	51	41.8
Integrated Science	9	7.4	113	92.6	77	63.1	45	36.9	45	36.9	77	63.1
Agricultural Science	10	8.2	112	91.8	70	57.4	52	42.6	16	13.1	105	86.9
Religious and Moral Education	51	41.8	71	58.2	78	63.9	44	36.1	83	68.0	39	32.0
Music and Dance	71	58.2	51	41.8	12	9.8	110	90.2	80	65.6	42	34.4
Physical Education	49	40.2	73	59.8	11	9.0	111	91.0	76	62.3	46	37.7
ICT	19	15.6	103	84.4	56	45.9	66	54.1	82	67.2	40	32.8

Source: Field survey (2014)

According to Table 4, majority (72.1%) of the respondents contend that English Language and Ghanaian Language and Culture respectively are taught as subjects in primary 1, while about (28%) said contrary. Mathematics and Music and Dance are the other subjects taught in primary 1 as majority (71%) of the respondents admitted this claim. It is however, surprising that nearly (60%) of the respondents denying that Physical Education and Religious and Moral Education are not taught in primary 1. Ideally, Physical Education and Religious and Moral Education are core subjects taught at the lower primary according to (Republic of Ghana, 2002). It is also evident from the Table that subject such as Integrated Science, Agricultural Science and Information Communication Technology (ICT) are not taught in primary 1. These subjects are practically not taught at the lower primary level. Analysis of the data in Table 3 reveals that majority (66.4%) of the respondents admitted that Mathematics is taught as a subject in primary 2. According to the Table, majority (63.1%) of the respondents also attested to the fact that English language and Integrated Science are taught as subjects in primary 2, while, subjects such as Music and Dance, Physical Education are rarely taught. These subjects are also core subjects for primary 2 according to (Republic of Ghana, 2002). The Table also shows that majority (61.5%) and (54.1%) of the respondents respectively said Ghanaian Language and Information Communication Technology are not taught in primary 2. With the exception of ICT, Ghanaian Language is a subject of study in primary 2.

Similarly, the Table shows that majority (68%) of the respondents said Religious and Moral Education is taught in primary 3. Similarly, about (67%) of the respondents admitted that Information, Communication Technology is taught as a subject in primary 3 and about (62%) of the respondents saying that Physical Education is taught as a subject in the lower primary. Almost (92%) of the respondents said English Language is not taught in primary 3. Perhaps because English Language is the medium of instruction at the upper primary, teachers found no need including it as one of the subjects taught at the lower primary. It is quite clear that teaching ICT at the lower primary level is quite problematic. In many of the schools visited, only few of them were connected to the national grid. Ostensibly, many of the schools have no source of electricity supply.

### **Research Question 2: What factors have impact on the effective teaching and learning in the lower primary?**

This research question sought to find out the educational services that are available in the lower primary schools within the Tamale metropolis. The open ended questions of the section C and D of the teachers and head teachers' questionnaires were used in answering this question. The responses were grouped into themes for an emergent pattern.

#### **Educational Services in the Schools**

Few of the schools visited provided some educational services and these services included library and information services. The respondents contend that they have a slot for library on the timetable, when it is time for library; teachers take pupils into the library for reading. A teacher in one of the schools remarked: "Our school does not have a school library or library books".

Other participants claim they do not have a library and that they do not even have books for children to read. They indicated that there is time on our timetable for library, so when it is time for that, we give the children story books to read, but we do not specifically have a block to serve as a library. About forty (40) participants claim that they have educational resources such as the library and information services. They contend that their school libraries and ICT centres provide educational services. They claim that through the effective use of the school time table, subjects such as reading, writing and computer literacy skills are taught to pupils at the lower primary. They also indicated that they have library and information services which are used for reading during library time and the teaching of ICT. A teacher in one of the schools visited said:

*We have a school library and ICT centre that provides educational services through the effective use of the school time table where reading, writing and computer literacy skills are*

### *Inkoom & Bello*

*taught to pupils at the lower primary. There is time on our timetable for library, so it is during the time for that, we give the children story books to read (Survey data at Tamale: 10/06/14)*

Further, other participants indicated that they do not have a room for use as a library. They have library books that are stored in the head teacher's office. There were other schools that stored their library books in boxes. Even with those that had access to these reading facilities the majority complained of the reading materials not being stocked with relevant reading materials for the lower primary. Most of these schools reported not having a room designated for the purpose of reading. There is no practical teaching of Information and Communication Technology. Students therefore do not have a practical feel of lessons. A respondent referred to the situation in these words:

*Children sometimes learn computer or ICT based on abstract terms. There is not even a single computer in the school meant for learning, not even to talk of internet for other purposes. There is no electricity hence there is no Information and Communication Technology learning centre in the school. (Survey data at Tamale: 10/06/14)*

### **Guidance and Counselling services**

Guidance and Counselling services were available in some of the schools. A respondent expressed his view of Guidance and Counselling as a service that has been established in the school to address problems concerning social, moral, economic and psychological issues of children in the school. In almost all the school visited, there are teachers tasked to be in charge of the Guidance and Counselling services. In some cases, the head teacher gives occasional talks as part of the Guidance and Counselling services. However, some of the respondents said there is no Guidance and Counselling in their school. A respondent observed that Guidance and Counselling is needed for both the teachers and children in the lower primary. He argues that "some teachers when provoked if no counselling is done the teacher may cane and wound the child" (Survey data at Tamale: 10/06/14). Another respondent reported that even though the Guidance and Counselling department is not seriously working yet they claim to be working.

Items for special needs outlined by respondents included the following:

- Textbooks: are special learning needs and as such they have some. A teacher in one of the schools visited said: "for example, we have English, Maths and Science textbooks but the RME is lacking".
- Reading skills and techniques: Other special service schools provide include reading skills and techniques. With this, pupils are made to learn the English language alphabet, in addition, a special time is allocated for pupils to learn how to read.
- Children with learning difficulties: Special TLMs for spelling and reading are used in teaching children with learning difficulties.

Respondents were asked if their schools had persons with disability and what educational services were available to such pupils. The feedback from the survey data regarding the issue of special learning needs services available in schools revealed that few schools had any form of specialized resource for children with special needs in their school.

### **Research Question 3: What are the available educational services that support effective teaching at the lower primary level of education in the Tamale metropolis?**

Data from section D of the teachers and head teachers' questionnaires was used answering this question and the main statistical instruments used were frequencies and percentages. The summary of teachers' rating of various factors contributing to the quality of teaching and learning at the lower primary level is presented in Table 5.

**Table 5: Teachers' Rating of Factors that Contribute to Effective Teaching and Learning at the Lower Primary Level**

Factors	LPI (%)	SPI (%)	LNI (%)	SNI (%)	NI (%)
Level of teachers' content knowledge makes a difference to students' learning.	101(82.8)	21(17.2)	-	-	-
Teachers' knowledge of syllabus and pedagogy is key to adequate lesson preparation.	95(77.9)	26(21.3)	-	-	1(0.8)
Teachers' English competence is necessary for appropriate teaching skills.	91(74.6)	28(23.0)	-	1(0.8)	2(1.6)
Loss of teaching time due to teacher distance learning programme.	6(4.9)	17(13.9)	15(12.3)	52(42.6)	32(26.2)
Loss of teaching time due to students' involvement in out of school activities.	11(9.0)	22(18.0)	17(13.9)	50(41.0)	22(18.0)
Lack of preparation for lessons.	11(9.0)	12(9.8)	37(30.3)	44(36.1)	18(14.8)
Pupils sit in classrooms during lesson.	89(73.0)	15(12.3)	5(4.1)	5(4.1)	8(6.6)
Pupils have access to pipe born water.	50(41.0)	51(41.8)	7(5.7)	3(2.5)	11(9.0)
Pupils have access to electricity.	59(48.4)	39(32.0)	8(6.6)	7(5.7)	9(7.4)
Teachers have access to text books and curriculum materials for teaching.	95(77.9)	18(14.8)	3(2.5)	3(2.5)	3(2.5)
Adequate access to text books by pupils.	81(66.4)	31(25.4)	3(2.5)	1(0.8)	6(4.9)
Supply for pens and pencils and note books for pupils.	70(57.4)	30(24.6)	2(1.6)	7(5.7)	13(10.7)

Source: Field survey (2014)

The keys to the Likert scale type questions are as follows: LPI=Large positive impact, SPI=Some Positive Impact, LNI=Large Negative Impact, SNI=Some Negative Impact and NI=No Impact.

Of the twelve factors impacting on the quality of teaching and learning, the mean ratings recorded in Table 5 indicate teachers' content knowledge, English competence, knowledge of syllabus and adequacy of lesson preparation have the greatest impact on the quality of teaching and learning. However, 4.9% of the teachers indicated that loss of teaching time did not have a large impact on teaching and learning. Respondents asserted that the loss of teaching time due to students' involvement in out of school activities as well as loss of preparation for lessons attracted a large positive impact of only 9.0% on the quality of teaching and learning. The concerns raised by teachers about effectiveness of teaching of certain subjects at the lower primary levels in the Tamale metropolis are presented in Table 6.

**Table 6: Subjects which Teachers Have Concerns about their Effective Teaching**

	GC (%)	SC (%)	NC (%)	UD (%)
English Language	89(73.0)	23(18.9)	10(8.2)	
Ghanaian language and Culture	48(39.3)	49(40.2)	18(14.8)	7(5.7)
Social Studies	22(18.0)	28(23.0)	10(8.2)	62(50.8)
Mathematics	87(71.3)	17(13.9)	15(12.3)	3(2.5)
Integrated Science	63(51.6)	27(22.1)	11(9.0)	21(17.2)
Agricultural Science	24(19.7)	20(16.4)	7(5.7)	71(58.2)
Religious and Moral Education	49(40.2)	38(31.1)	25(20.5)	10(8.2)
Music and Dance	13(10.7)	49(40.2)	10(8.2)	50(41.0)
Physical Education	22(18.0)	59(48.4)	9(7.4)	32(26.2)
Information and Communication Technology	86(70.5)	28(23.0)	5(4.1)	3(2.5)

Source: Field survey (2014)

Keys GC=Great Concern, SC=Some Concern, NC=No Concern and UD=Undecided

The teachers' ratings reported in Table 6 indicate that there is considerable concern among teachers about the quality of teaching of core subjects at the lower primary. As much as 73.0 % of the teachers indicate that they have great concern about the quality of teaching English Language. Similarly 71.3% had great concern in the way Mathematics is taught at the lower primary. Teaching Ghanaian Language had 40.2% showing some concern. Social Studies also had 23.0% showing some concern. Integrated Science had as many as 51.6% expressing great concern, and 17.2% were undecided. The data also revealed that the form of Science currently taught at the lower primary is called Natural Science. These are core subjects for the Basic Education Certificate Examinations, and they are taught in all schools at all year levels.

The analysis made, revealed that factors that have large positive impact on effective teaching and learning at the lower primary levels included level of teachers' content knowledge, teachers' knowledge of syllabus and pedagogy as well as adequate lesson preparation, teachers' level of competence in the English language, appropriate teaching skills, access to text books and curriculum materials for teaching, supply for pens and pencils and note books for pupils and adequate access to text books by pupils.

### Discussion

The finding of the study reveals that effective teaching is dependent on the level of teachers' content knowledge, teachers' knowledge of syllabus and pedagogy as well as adequate lesson preparation, teachers' level of competence in the English language, appropriate teaching skills, access to text books and curriculum materials for teaching, supply for pens and pencils and note books for pupils and adequate access to text books by pupils. However, students learning is not simply the function of time spent on academic work. Additionally, variables such as the suitability of the activity, the student's success or failure in the tasks attempted, and the motivating characteristics of methods and materials, are also important (Rohrkemper, & Corno, 1988; Sadowski, 1998; Brewster, & Fager, 2000). Effective

teachers have good command of their subject matter and a solid core of teaching skills. They have excellent instructional strategies supported by methods of goal setting skills, instructional planning and classroom management. They know how to motivate, communicate and work effectively with students from culturally diverse background. They also understand how to use appropriate level of technology in the classroom (Santrock, 2004; Daiz, 1997). An important aspect of effective teaching is the teacher's ability to keep the class as a whole working together and oriented towards a classroom task. Effective teachers establish and maintain an environment in which learning can occur. To create this optimal learning environment, teachers need a repertoire of strategies for establishing rules and procedures, organising groups, monitoring and placing classroom activities and handling misbehaviour (Algozzine, & Kay, 2002; Emmer & Strough, 2001; Lindberg & Swick, 2002; Martella, Nelson, & Marchand-Martella, 2003).

The findings of the study are rooted in the educational review report (Republic of Ghana, 2000; UNESCO, 2005; Ministry of Education, 2003) which laid so much emphasis on the importance of the quality of teacher to quality education. The teaching staff at the lower primary levels of education in the Tamale metropolis had requisite academic and professional qualification to deliver effective teaching and learning, since most of them were either diploma or degree holders. While there is some progress in terms of the quality of teaching staff at the lower levels of education, the issues of teacher deployment and teacher discipline in rural areas remains a great challenge in Ghana, particularly in northern and the Western regions of Ghana (Casely-Hayford, 2013). The findings revealed that Guidance and Counselling services were available in some of the schools. These services are integral part of education and geared towards solving problems of discipline and delinquency in the school and assists teachers to develop the skills in knowing, helping and handling students with their emotions (Chauhan, 2003; Taylor & Buku, 2006; Oladele, 2000).

The finding also confirms the assertion that quality education is a multifaceted phenomenon that cannot be measured by one single variable. Several variables such as level of teachers' content knowledge, teachers' knowledge of syllabus and pedagogy as well as adequate lesson preparation, teachers' level of competence in the English language, appropriate teaching skills, access to text books and curriculum materials for teaching, supply for pens and pencils and note books for pupils and adequate access to text books by pupils. Effective teaching and learning involves the provision of quality inputs, quality delivery process and quality output. It includes learners who are healthy, well-nourished and ready to participate and learn on a continuous process, supported by their families and communities (Republic of Ghana, 2002). Effective teaching and learning also includes a content that is reflected in relevant curricula and materials for the acquisition of basic skills and knowledge, especially in literacy, numeracy and skills for life (Jansen, 1995). Jansen (1995) further elaborates that the process through which trained and motivated teachers use child-centred teaching approaches in well-managed classrooms and schools, in addition to skilful assessment also culminates in quality education. These factors have large positive effects on quality education.

Further analysis of the finding, is congruent with the concept of the Whole School Development programme in the sense that teachers in lower primary levels of education in the Tamale metropolis were given in-Service training in the preparation of TLMs, teaching English language, teaching Mathematics (Fractions), teaching Science, Marshall Program, Learning through Play, Preparation of Lesson Notes, Girl Child, ICT, and Using L1 Teaching in lower Primary, Mentorship and Time Management. This is to ensure that competencies of teaching and learning are enhanced through school-based in-service training and improve efficiency in resource management (GES WSD Report 2004).

### **Conclusion**

From the findings, the conclusion drawn are that teachers in teaching at the lower primary level of education in the Tamale metropolis have the requisite qualifications and experience to provide

effective teaching and learning which is the important ingredient for quality education. These teachers are grappling with the seemingly overcrowded classrooms.

The finding provided sufficient information to conclude that teacher's versatilities in the content area as well as in the syllabus and pedagogy, though essential for effective teaching but are not the sole agents of quality education delivery. The prescribed medium of instruction is enforced in the lower primary; however the challenge has to do with newly posted teachers who may have difficulty in using the dominant language of the community coupled with children's lack of proficiency in the use of the English language. It can also be concluded from the findings that teachers still face challenges in the preparation of lesson notes, ICT teaching and using mother tongue in teaching in lower Primary as well as time management.

### **Recommendations**

Based on the findings the following recommendations are proposed:

1. Head teachers should enforce the creation of classroom libraries and information services as well as special needs services for pupils with disabilities in the classroom since these are essential components of effective teaching.
2. Guidance and Counselling services need to be institutionalised at the primary level of education since that is an integral component of effective teaching and learning but lacking in many schools.
3. Circuit Supervisors should make frantic efforts in ensuring that teachers practice what they have learnt during in-service training programmes since there seem to exist a gap between what is learnt and what is practiced.
4. Although ICT is a core subject at the lower primary, and schools are provided with computers and their accessories, many of the schools are not connected to the national electricity grid. District Directors of Education should discuss with District Assemblies ways to expedite work on electricity project.
5. The issues of class size is still a major concern, the shift/stream system could be effectively implemented to address the challenge.

### **References**

- Aboagye, J. K. (2002). *Historical and philosophical foundations of education in Ghana*. Ghana: Media Guard.
- Akyeampong, K. (2009). Re-visiting Free, Compulsory, Universal Basic Education (FCUBE) in Ghana. *Comparative Education*, 45 (2), 175-195.
- Algozzine, B. & Kay, P. (2002). *Preventing problem behaviours*. Thousand Oaks, C A: Corwin Press
- Arends, R. I, Winitzky, N. E., & Tannenbaum, M. D. (2001). *Exploring teaching: An introduction to education*. (2<sup>nd</sup> ed.). New York: the McGraw-Hill Companies
- Brewster, C & Fager, J. (2000). *Increasing student engagement and motivation from time on- task to homework*. An internet paper prepared for NWREL., available at [www.nwre/.org/request](http://www.nwre/.org/request).
- Brooks, J G. & Brooks, M. G. (2001). *In search for understanding: The constructivists classroom*. Upper Saddle River, NJ: Merrill
- Casely-Hayford, L. (2013). *The political economy analysis of the education sector in Ghana: The implications for STAR-Ghana. Draft Report 2.01*. Ghana: Education Lead.
- Chauhan, S. S. (2003). *Principles and techniques of guidance*. New Delhi, India: Vikas Publishing House PVT Limited.
- Crowl, T.K. Kaminsky, S. & Podell, D. M. (1997). *Educational psychology: Windows on teaching*. London, U K: Brown and Benchmark Publishers.
- Cushner, K. H. (2003). *Human diversity in action*. Boston: McGraw-Hill
- Daiz, C. (1997). Un published review of J. W Santrock's *Educational psychology*, ( New York: McGraw-Hill)
- Emmer, E.T., & Strough, L. M (2001). Classroom management: A critical part of educational psychology with implications for teacher education. *Educational Psychologist*, 36, 103-112.
- Gall, M., Borg, J., & Gall, J. (1996). *Educational research; An introduction*. (6<sup>th</sup> en.). White Plains, NY: Longman Publishers.
- Gay, L. (1996). *Educational Research: Competence for analysis and application*. Upper Saddle River, NY: Merrill - Prentice.

- Ghana Education Service. (2004). *Whole school development status report*. Accra: Ministry of Education.
- Hikey, D. T., Moore, A. L. & Pellegrino, J. W. (2001). The motivational and academic consequence of the elementary mathematics environment: Do constructivist innovations and reforms make a difference? *American Educational Research Journal*, 38, 611-652
- Jansen, D. (1995). Effective schools. *Comparative Education*, 31 (2), 181-200.
- Johnson, D. W. & Johnson, R. T. (2002). *Multicultural education and human relations*. Boston: Allyn and Bacon
- Leedy, P. & Ormrod, J. (2005). *Practical research planning and design* (8<sup>th</sup> ed.). New Jersey: Pearson Merrill Prentice Hall.
- Lindberg, J.A., & Swick, A. M. (2002). *Common-sense classroom management*. Thousand Oaks, CA: Corwin Press.
- Martella, R. C. Nelson, J. R., & Marchand-Martella, N. E. (2003). Implications of differentiating and understanding constructivist approaches. *Educational Psychologist*, 31, 240-243.
- Ministry of Education. (2003). *Education strategic plan 2003 – 2012. Volume 1 Policies, Targets and Strategies*. Government of Ghana.
- Ministry of Education. (2004). *Preliminary education sector performance report*. Accra: Curriculum Research and Development (CRDD).
- OECD. (2000). *Education at a Glance: OECD database*. Paris: OECD.
- Oladele, J.O. (2000). *Guidance and Counselling; A functional Approach*. Lagos: Johns-Lad Publishers.
- Ornstein, A. C & Levine, D. U (2003). *Foundations of education* (8<sup>th</sup> ed.). New York: Houghton Mifflin Company.
- Ornstein, A.C. & Levine, D. U. (2003). *Foundations of education* (8<sup>th</sup> ed.). Boston, New York: Houghton Mifflin.
- Palomba, C. & Banta, T. (1999). *Assessment essentials: Planning, implementing and improving assessment in higher education*. San Francisco: Jossey-Bass Publishers.
- Republic of Ghana. (2002). *Meeting the challenges of education in the twenty first century: report of the president's committee on review of education reforms in Ghana*. Accra: Adwinsa Publications.
- Robson, C. (2002). *Real world research. A resource for social scientists and practitioners-researchers* (2<sup>nd</sup> ed.). Australia: Blackwell Publishers.
- Rogoff, B. & Wertsch, J. V. (Eds). (1984). *Children's learning in the "zone of proximal development"* San Francisco: Jossey-Bass
- Rohrkemper, M. & Corno, L (1988). Success and failures in classroom tasks: Adaptive learning and classroom teaching. *Elementary School Journal*, 297-311.
- Sadowski, M. (1998). Time and learning. *Harvard Education Letter* (March-April)
- Santrock, J. W. (2004). *Educational psychology* (2<sup>nd</sup> ed.). New York: McGraw-Hill
- Sarantakos, S. (2005). *Social research* (3<sup>rd</sup> ed.). China: Palgrave: Macmillan.
- Scheerens, J. & Bosker, R. (1997). *The foundations of educational effectiveness*. Oxford: Pergamon.
- Spring, J. (2002). *American education* (10<sup>th</sup> ed.). New York: McGraw-Hill
- Taylor, A. I. & Buku, D. K. (2006). *Basics in guidance and counselling* (2<sup>nd</sup> ed.). Winneba, Ghana: Department of Psychology & Education.
- Teacher Education Division. (1999). *Training program for head teachers and other stakeholders*. Retrieved from Whole School Development training document: [http://www.portal.unesco.org/....Whole\\_School\\_Development....Ghana/Akyeampong](http://www.portal.unesco.org/....Whole_School_Development....Ghana/Akyeampong).
- UNESCO. (2000). *Dakar Forum/EFA goals*. Retrieved from <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-all/>
- UNESCO. (2005). *Education for All Global Monitoring Report: The quality imperative – summary*. Paris: UNESCO .
- USAID. (2009). *Basic education in Ghana: progress and problems*. Washington D. C.
- Vygotsky, L. S. (1981). *Mind in society: The development of higher psychological processes*. (M. Cole, V. JohnSteiner, S. Scribner, & E. Souberman, Eds. & Trans.). Cambridge, MA: Harvard University Press.
- Wang, M.; Haertel, G.; & Walberg, H. (1993). Synthesis of research: What helps students learn. *Journal of Educational Leadership*, 51 (4), 74-79.
- Werstch, J. V. (1991). *Voices of the mind: A socio-cultural approach to mediated action*. Cambridge, MA: Harvard University Press. (<http://www.jaltpublications.org/tlt/files/97/may/waring.html> Last modified: January 29, 1998).