2-17-2018

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Kojo Bawa Dukper Mr.
Tamale Technical University, kbdukper@yahoo.com

Baffour Ohene Agyekum Mr.
Kumasi Technical University, Baffour530@gmail.com

Banleman Konlan Mr.
University for Development studies, bkonlan@uds.edu.gh

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1) Kojo Bawa Dukper  
Assistant Librarian, Tamale Technical University,  
kbdukper@yahoo.com

2) Baffour Ohene Agyekum  
Assistant Librarian, Kumasi Technical University.  
Baffour530@gmail.com

3) Banleman Konlan  
Assistant Librarian, University for Development studies  
bkonlan@uds.edu.gh

Abstract  
School libraries are key agents in the educational system in Ghana. Therefore, this study sought to assess the impact of school libraries on students’ academic success in Bunkpurugu-Yunyoo District of Northern Ghana. The descriptive survey design was employed to determine the level of impact on the various variables deplored for the study. The population for this study was made up of Circuit Supervisors, teachers and students within the study area. Purposive sampling technique was employed to select three junior high schools with libraries and another set of three without libraries. Krejcie and Morgan (1970) table was used to select (150) students from a population of (240). Simple random sampling technique was used to proportionally select 25 respondents from each of the six schools. The instruments used for the study includes questionnaire, interviews, observation and existing document analysis. Key informants of 10 were interviewed and a visit to each of the schools included in this study was undertaken to observe how libraries utilisation could enhance students’ academic achievement. Paired t-test calculated at (p≤ 0.05) was used to determine differences in students’ academic achievement. The results indicated a positive significant difference in the academic achievement of students in schools with libraries and those without libraries in all the items that were investigated. The study recommends for a policy of ‘one rural school, one library’ stocked with relevant reading materials and the setting up of ‘Reading Clubs’ in rural schools in order to sustain students’ interest in reading.

Keywords: School Library, Academic Achievement, Students, Reading.

Introduction  
The emergence of information technology is rapidly transforming the process of development in the 21\textsuperscript{st} century. This information age demands the current generation to be proactive in facing the numerous challenges in the system. This implies children must be given the opportunity to acquire knowledge in order to enthusiastically and innovatively control nature and reform society. Hyper-competitiveness in the market economy require students to possess creative thinking to be able to prepare themselves
effectively for future knowledge needed for work (Whelan, 2014). For this to be realised, learners must establish contact with society to enable them enlarge their channels of acquiring knowledge and information (Aplin, 2013). Reading books is one of the habits through which one can acquire the relevant information about the world. Without reading, one’s intellectual development would suffer a set-back. School libraries therefore, facilitate the intellectual development of children by providing books and other information sources which play a critical role in their educational and social development.

In Ghana, Alemna, (1983, 1990, 1993, 1994, 1996, 2002) has provided extensive appraisal of school library improvement in line with the new educational reforms in the country. The target for this policy review was to mandate the supply and stock of supplementary reading materials to schools and colleges, organisation of school libraries, and the provision of training programmes for library staff. This was to help students develop self-confidence and the freedom to generate meaningful conclusions and solutions for self learning. Other earlier researchers such as (Rosenberg 1998, Sturges & Neill.1990; Tawete, 1995 & Karlson, 1996) have all equally investigated expansively on the effects of school libraries on the educational development of children in African rural schools. They concluded that school libraries allow students to apply critical thinking skills to identify, question and create ideas so that personal understandings will emerge by constructing opinions and establishing evidence based observations and views.

Several government interventions in arresting the falling standards of education in Ghana is highly recognised, yet very little is done in the areas of reading and other supplementary materials that could support teaching and learning at the basic levels of education (Alemna, 2002). Books and other reading materials in a conventional form of a school library was not part and parcel of the set-up of schools since the inception of formal education in Ghana (Alemna, 1994). This was not feasible until the school library scheme was introduced as a facet of Ghana’s Second Development Plan in 1959 to provide libraries for secondary schools (Alemna, 1983). This laudable policy however, could not survive the time as there was lack of effective management of these school libraries (Alemna, 1997). According to Miller et al (2013), access to libraries and books is the bedrock of children academic and social development. It serves as connection between vulnerability and expectation for several educationally deprived children. The relapse in these educational interventions saw disadvantaged rural basic schools performing abysmally in various forms of exams in Ghana. Ankomah, (2006) argues that effective supervision and training of teachers as well as infrastructure development and provision of textbooks could improve teaching and learning.

A lot of research and other interventions have been carried out in addressing the falling standards of education in Ghana. Some of these interventions and policies included training of more teachers; special allowance for rural teachers, granting of study leave for rural teachers to upgrade their skills, introduction of school feeding programme, and school capitation programme (Ankomah, 2006). However, the educational success of pupils in most government basic schools in rural Ghana for the past couple of decades has dropped considerably (Akyeampong 2007), and other strategic interventions to salvage the situation have not produced any meaningful outcome (Atta-Quayson, 2007).
The 2013 National Education Assessment (NEA) report indicated that majority of students in basic schools including Bunkpurugu-Yunyoo schools cannot read to understand in either English or any Ghanaian language. This same report revealed that Bunkpurugu-Yunyoo district is among one of the lowest academic performing rural schools in the country. The report indicated that, at least 50 per cent, and often, more of the pupils assessed could not pronounce a single English or Ghanaian word correctly (Atta-Quayson, 2007. This may perhaps affect students’ potentials for future academic progression and failure in the achievement of educational goals.

In all these, insufficient financial support and teachers are blameable for the abysmal educational attainment of these school children (Akyeampong, 2007). Very little is said about using school libraries as a means of assisting students attain superior academic outcomes in rural basic schools in Ghana. Equally paucity of research is available in Ghana on the provision of effective school libraries to basic schools in poor rural settlements in Ghana. It is against this backdrop that this study sought to investigate whether effective school libraries are significant determinants of students’ academic achievement in the Bunkpurugu-Yunyoo District in northern Ghana. This study was centred on one cardinal question that guided its focus. Thus; are there any significant differences in the academic achievement of students in schools with libraries and those without them?

**Review of Literature**

Research from earlier scholars has indicated that school libraries contribute in diverse ways towards the improvement of students’ academic performance in a complex information world. According to Todd, *et al* (2012) the role of a vibrant school library system is economical and important resource that equips students to become reflective learners capable of finding, assessing and building knowledge from information found in a variety of formats. Kachel, (2011) indicated that an effective school library should have a librarian, up-to-date reading materials, and information technology equipment to support reading and literacy skills. According to krashen (2004) school libraries are the only source of reading materials to students in rural schools. Achterman (2008) highlighted the fact that there is a kind of relationship between effective school library services and students’ achievement on test scores.

A broad spectrum of studies confirm that access to books and other reading materials by students irrespective of their location affords them self-regulated and self-selected reading (Krashen, 1995; McQullian & Au, 2001). Effective libraries therefore support students to develop literacy skills, reading culture and offer opportunities for students to learn at an individual level of enquiry outside their given programme (Goodin, 2010; Krashen, *et al.*, 2010; & Rodney *et al.*, 2003). Other studies have established positive significant relationship between students access to libraries, availability of reading materials, frequency to libraries, reading habits and students’ academic achievement (Small & Snyder, 2009; Heinstrom & Todd, 2006).

School libraries are considered to be particularly significant as cradles of books. Findings by Gates foundation (2013) showed that 83 percent of all students had access to books from the school libraries. Clark (2010) contended that effective school libraries do not
only provide books, but they also serve as learning hubs with a broad range of print and electronic resources that support students’ academic achievement. Goodin, (2010) argued that school libraries with qualified librarians and appropriate technological support systems contribute immensely to students’ academic achievement. Krashen, et al., (2010) asserted that school libraries do not only develop reading habits in students, but assist them to learn and process information effectively. Clark (2010) postulates that the main aim of school libraries is to ensure students access to books for enhanced learning outcomes and superior social development. Educational inequality denies the dignity of every child and the opportunity to read properly and access to proper information and knowledge. Equal education therefore provides the opportunity for children to develop their intellect equally through the provision of libraries to all public schools (Achmat 2008). According to Doron, the Department of Basic Education’s research shows that only 7% of South Africa’s public schools have functional libraries.

This suggests that much need to be done if African countries really want to meet the goal of education for all policy. It must be emphasised that if libraries are not placed within a purposeful agenda of importance and are not regularly used and improved, there is a danger that many school children and educated adults will relapse into illiteracy group and the huge investment in education will be wasted. In 1965 President Lyndon Baines Johnson of America made this remark when he signed basic education act that; “education is the only valid passport from poverty. We bridge the gap between helplessness and hope for more than five million educationally deprived children. We put into the hands of our youth more than 30 million new books and into many of our schools their first libraries.” This is a clear indication of a strong leadership drive by then government of United State of America towards a total commitment of an equal education for its youth for an accelerated literacy society. This kind of political commitment and boldness towards education is what we expect from our African leaders.

Methodology
This study applied descriptive survey to determine the impact of effective school libraries on the academic achievement of students in the Bunkpurugu-Yunyoo district in the northern region of Ghana. This design was used because it is swift, effective and the results can easily be generalized (McMillan, 2004). The population for this study comprised of circuit supervisors, teachers and students within the study area. Multi-stage sampling technique was employed for the study. Purposive sampling technique was employed to select three junior high schools with libraries (Nakpanduri, Najong No.1 and Bunkpurugu), and another set of three without libraries (Binde, Kanbaugu and Jiliik). Krejcie and Morgan (1970) table was used to select (150) respondents from a population of (240). Simple random sampling technique was however, used to proportionally select 25 respondents from each of the six schools. The instruments used for the study included questionnaire, interviews, observation and existing document analysis. Interviews were conducted to elicit information from (10) key informants (six teachers and four circuit supervisors) who had in-depth knowledge in libraries’ contribution to students’ academic achievement. A visit to each of the schools was undertaken by the researcher to observe how students and teachers utilise libraries. A set of possible effects of libraries on students’ academic achievement were developed by the researcher and subjected to
extensive review by two experts in the field. Interview questions were developed with the support of existing literature and experts in the field. The questionnaire was authenticated by specialists and pre-tested to guarantee consistency in advance of its administration.

To determine the extent of effect of libraries on students’ achievement, self-rating scale was employed. The dependent variable, ‘academic achievement’ was determined using a four point rating scale as; 1 - improvement in communication, 2 - helps in self-regulated learning, 3 - development of new knowledge, and 4 - improved exams scores. The independent variables, consisted access to libraries, available learning materials, habits toward studies and frequency of visits to libraries. A four point self-rating scale was used to measure the independent variables. A total of (150) questionnaire was completed and returned by all participants. Data was analysed using Statistical Package for Social Sciences (SPSS) version 20. Inferential statistical in the form of paired t-test calculated at (p≤ 0.05) was used to analyse the data collected.

The study relied largely on field notes capture successively explanations during interviews and observations. This is in line with Loﬂand and Loﬂand (1984) recommendation that, sketching down notes will serve as recall guide when full notes are constructed. This was done soon after interviews and observations, conceivably the same day. Thorough reading was done on all transcripts and notes, so as to gain familiarity and extensive understanding of the materials pieced together as recommended by Patton (1990). Following this, comparisons were made to either corroborate or contrast data collected using questionnaires.

Results and Discussion

In this study, the possibility of difference was ascertained using paired t-test statistics to ascertain any significant difference in the academic achievement of students in schools with and without libraries. Table 3 shows the results of t-test statistics between the two set of respondents as reflected in their mean scores. The differences in their mean scores are statistically significant at p≤0.05. The implication is that, students in schools with effective libraries would have superior academic achievement than their counterparts in schools that do not have.

The findings are in tandem with the study of Bleidid (2011) that school libraries play a critical role in students’ academic success since they provide them with useful information that could support them become better readers and writers. The ability to read leads to better educational attainment as pupils are able to grasp what they read resulting in new skills development, attitude and understanding (Krashen, 2010; McQuillan & Au, 2001). The New York Comprehensive Center, (2011) asserts that institutions that provide expansion in access to libraries through dynamic planning had their pupils performing 10% and 11% better in reading and lettering respectively than schools that provide less of those services. Bleidid (2011) found a significant positive correlation between funding school libraries and students’ attainment in reading and writing. Equally, Kim, (2004) established a positive significant relationship between accessibility to books and students’ enrolment in institutions.
This research outcome also established positive significant relationship between effective libraries and students reading habits. This shows that students in schools that have libraries spend significant portion of their time reading. This affirms the findings of Sturges and Neill (1998) that the more students have access to books, the more they develop the habit of reading to enhance their academic achievement.

Equally, Libraries provide quiet and comfortable places where students can work independently and without distraction (Small & Snyder, 2009; Heinstrom & Todd, 2006). Libraries support institutions and users to realize their educational potentials (Hernon & Altman, 1998; Everest & Payne 2001; Kuh & Gonyea, 2003; Oakleaf, 2011).

In an interview, a circuit supervisor in the study area submitted that;

*Lack of libraries affects students’ achievement in the schools and having access to them could indeed improve their communication skills and assist them to learn independently (IDI, 2016)*

A teacher in a school that has a library contended that;

*Libraries could support students language development, problem-solving, social, cultural and information and communication technology skills (IDI, 2016).*

The findings also affirms the research of Durance (2003) that pupils in schools without libraries lack self-assurance, self-reliance, decreased sense of responsibility and a narrowed worldview. School libraries play critical role in lowering achievement gaps and assist slow learners on their passageways to academic success. School libraries provide both academic and social supports that could raise the grades of students (New York Comprehensive Center, 2011; Oakleaf, 2010).

In an interview, a teacher in a school without a library submitted that;

*We use the Bunkpurugu and the Nakpanduri senior high school libraries to gather information for teaching and learning (IDI, 2016)*

Another teacher in a school without a library presented that;

*Libraries are important enablers for teaching and learning and schools that do not have them are starved critical academic resource (IDI, 2016)*

Similarly, the results of this study confirm the work of Keeling, *et al.*, (2008) that libraries could make a difference in students’ academic lives, and help them achieve their academic goals (Rodger, 2009). Equally, Gardner & Eng (2005) found that 99.44% of students with well-furnished school libraries felt the libraries helped them to learn, 89% reported that it helped them get better score marks on assignments; whiles 75% stated
that it helped them get better score marks on exams, to think critically and become much more confident in school task. Todd & Kuhlthau (2004) submitted that school libraries help pupils discover information, well prepared, and assist them become better leaners.

The results of this study is also in tandem with the position of Goodin (2010) that other curriculum based social resources such as video conferencing, radio, games, computer based reading, and book exhibits among others could be undertaken in libraries to enhance students attraction to such places.

In an interview, a teacher stated that;

*Some students just walk into the library and read their favourite literature, comic books and daily papers. Students read pretty well during their freed periods. Students also gather with friends to discuss social issues in the school library* (IDI, 2016)

Another teacher submitted that;

*The libraries act as an improvised office for teachers during school hours. Teachers have no offices and are always in the libraries between lessons, evenings and weekends. Some students use the library as an opportunity to interact with their teachers* (IDI, 2016)

To corroborate the above findings, the researcher also observed students at Nakpanduri, Najong No.1 and Bunkpurugu Junior High Schools as they were busy searching for information in the libraries. Students were seen searching and locating reading materials on shelves unaided, as well as making informed choices on which materials to use for home assignment and other purposes. What was observed is in line with Williams & Wavell (2001) four items model designed for evaluating the impact of libraries on learning. The four items that are contained in the model are evidence of motivation, progression, independence, and interaction. Evidence of the impact of these items on learning was established while observing students at Nakpanduri, Najong No.1 and Bunkpurugu Junior High School libraries respectively. On evidence of motivation, students expressed their joy, participation, and absorption in their chosen task. The students expressed the excitement at the libraries where they participated in various activities. Williams & Wavell (2001) identified evidence of independence as students who seemed to have grasped the proficiency and remained resolute and confidence to continue and advance unassisted, both in class and leisure time. This pointer was obvious in students, who were observed over a period of time, and those who were able to use the library by themselves, locate their own materials, asked relevant questions from their teacher as and when necessary. Evidence of interaction includes student group collaboration and discussion with each other about projects and home assignment. This pointer was experienced at student group projects periods where they collectively worked on exercises using school library.

On the contrary, schools without structures designated for library activities (Binde, Kanbaugu and Jiliik JSS) keep their teaching and learning materials in boxes and are only
made available during school hours for students to use them for class exercises. Even though schools without libraries (Binde, Kanbaugu and Jiliik Junior High Schools) did not have libraries, students were seen reading some textbooks at their disposal. The researcher observed a robust circulation, especially textbooks designed for particular lessons. Pupils independently studied in groups in the course of study sessions and were observed to be excited using other learning materials (evidence of motivation), able to utilize specific textbook for a period of time (evidence of development), and happily reading their books unaided (evidence of independence). This is a clear indication that school libraries play a major role in making students become independent and responsible for their own learning.

Table 1: Differences in academic achievement of students in schools with and those without libraries in Bunkpurugu-Yunyoo District

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>N</th>
<th>s.d</th>
<th>s.e</th>
<th>t</th>
<th>df</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to library (NL)</td>
<td>1.4600</td>
<td>150</td>
<td>.55114</td>
<td>.04500</td>
<td>-12.000</td>
<td>149</td>
<td>.000</td>
</tr>
<tr>
<td>Access to library (WL)</td>
<td>2.0000</td>
<td>150</td>
<td>.00000</td>
<td>.00000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials for learning (NL)</td>
<td>1.7800</td>
<td>150</td>
<td>.52928</td>
<td>.04322</td>
<td>-23.706</td>
<td>149</td>
<td>.000</td>
</tr>
<tr>
<td>Materials for learning (WL)</td>
<td>3.5933</td>
<td>150</td>
<td>.86774</td>
<td>.07085</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency to library (NL)</td>
<td>1.7400</td>
<td>150</td>
<td>.59562</td>
<td>.04863</td>
<td>-46.471</td>
<td>149</td>
<td>.000</td>
</tr>
<tr>
<td>Frequency to library (WL)</td>
<td>4.0000</td>
<td>150</td>
<td>.00000</td>
<td>.00000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habits toward studies (NL)</td>
<td>2.4267</td>
<td>150</td>
<td>1.16058</td>
<td>.09476</td>
<td>-13.635</td>
<td>149</td>
<td>.000</td>
</tr>
<tr>
<td>Habit toward students (WL)</td>
<td>3.7200</td>
<td>150</td>
<td>.87562</td>
<td>.07149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other effects on students (NL)</td>
<td>2.0333</td>
<td>150</td>
<td>1.20076</td>
<td>.09804</td>
<td>-17.217</td>
<td>149</td>
<td>.000</td>
</tr>
<tr>
<td>Other effects on students (WL)</td>
<td>3.9067</td>
<td>150</td>
<td>.42326</td>
<td>.03456</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


End of Term Reports Analysis

To corroborate the findings above, extant documents (end of term exams report) were analysed to ascertain the academic attainment of students in the six schools that were used for this study. This was done by comparing the average grades of the students in their previous end of term exams. The students study a minimum of ten subjects with the highest possible average of 100. In this study, the subjects English, Science and Social studies were purposively selected for this analysis because students often consider them as “reading subjects. The analysis revealed that students in schools with (Nakpanduri, Najong No.1 and Bunkpurugu) had higher overall average marks their colleagues in schools deprived of libraries (Binde, Kanbaugu and Jiliik). As indicated in Table 4, the mean difference in the exam scores for schools with and without libraries were 8, 6 and 10 for English Language, Science and Social Studies respectively. To this end, it is evident that school libraries have great impact on the academic attainment of students in the study area.
The findings confirm the study of Oakleaf, (2011) that Libraries in academic institutions could be used to enhance students test scores, retention and graduation rates. In an interview, a headmaster in one of the schools without libraries remarked that;

*Students’ grades tend to be low because they had very poor academic foundation at the primary level, poor parental control, and lack of teaching and learning materials among others (IDI, 2016)*

**Table 2. Average end of term examination scores of students in schools with and those without libraries**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Without libraries</th>
<th>With libraries</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>English language</td>
<td>47</td>
<td>55</td>
<td>8</td>
</tr>
<tr>
<td>Science</td>
<td>46</td>
<td>52</td>
<td>6</td>
</tr>
<tr>
<td>Social studies</td>
<td>52</td>
<td>62</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
<td>169</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: Schools used for the study (2016)

**Conclusion and Recommendations**

The results of this study indicate a positive significant difference in the academic achievement of students in schools with and those without libraries in the Bunkpurugu-Yunyoo District in Northern Ghana. While access to libraries, availability of learning materials, students’ frequency to libraries, students’ habits toward studies enhanced the academic achievement of students in schools with libraries; their counterparts in schools without libraries are denied that opportunity to improve their learning outcomes. Students in schools with libraries perform better than those in schools without libraries. This study therefore concludes that effective libraries are capable of assisting students achieve desired learning outcomes. The study recommends for a policy of ‘one rural school, one library’ with relevant reading materials. The study also recommend for the setting up of ‘Reading Clubs’ in rural schools in order to sustain the interest of students in reading.

**Limitations of the Study and Scope for Further Research**

The study was limited in scope to three junior high schools with libraries (Nakpanduri, Najong No.1 and Bunkpurugu), and another set of three without libraries (Binde, Kanbaugu and Jiliik) in the Bunkpurugu-Yunyoo District in northern Ghana. The unique characteristics of the district may limit the external validity of the findings. The study made use of data that was specific to only the participating schools and thus cannot be generalised to other rural schools. The scope of future studies should be widened to include similar rural schools across the country and beyond. Besides, the results of small sample size used for this research may not be generalised beyond the population from which the sample was drawn. This would increase the sample size and make the research more representatives for external validity. Even though the study outcomes and conclusion might not be generally representative, it may serve as reference point upon which further studies of this kind could be grounded, especially in Ghanaian basic rural schools.
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