

Using Multimedia Tools in Education (History Education in the Basic Schools, Ghana)

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Abstract — This study gathered data on how teachers integrated multimedia technology into the teaching of History students in Basic School. Questionnaire and observations were used for data collections. Findings indicated that multimedia integration is a factor in the teaching of History in the schools. The study indicated that Internet surfing, audiovisual tape, overhead projectors and internet education were the preferred method of multimedia integrated into classroom lessons.

Keywords— Basic School, Technology, Multimedia, Education, Teaching, History, Internet, lessons.

1 INTRODUCTION

The study seek to investigate the influence of audiovisual aid on the teaching of History was informed by findings from his action research project last semester.

The research examined the effect of audiovisual/multimedia in learning/teaching of History Education from the students' perspective. The research involved watching students using computers in classroom and in the library. Students were each assigned a specific topic to research. Their tasks such as projects, essays and PowerPoint presentations were assessed. Students were given the chance to use any of technological tools to present their work.

The usage of pictures, at the side of texts, reduces the overpowering nature of words and allows the learner to control the reasoning load, which will increase retention. Particularly, photos are located to guide retention because essential features are centered on through placement, layout and coloration. Activation of prior knowledge is engaged quickly with visible analogy, and mental models are created without difficulty as diagrams can enhance information of the way a concept works. Additionally, knowledge aquisition is easier because it simulationsly allow students to visualize real-life conditions, and motivation is increased as students are able to see the relevance of skills.

1.3.1 General Objectives

The research aims to reveal the effect of using technology on the students' academic performance and also to ascertain the output of teachers using multimedia.

- a) Enhance excellence education in Ghana
- b) Reduce dependency on verbal teaching and abstract teaching

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1.3.2 SPECIFIC OBJECTIVES

- To combat the poor academic performance of the Basic School student
- To develop a strategy to help the Basic School learner to appreciate multimedia in their learning process
- To create awareness of how teachers can incorporate multimedia into History lessons.

1.4 Research Questions

Below are the questions to guide the researcher:

1. How do History teachers view the computer as an instructional tool?
2. What are the current Multimedia instructional applications teachers are using in their classrooms?
3. How do History teachers use computer-supported instruction in their classrooms?

2. LITERATURE REVIEW

This section review literature on multimedia usage and their effects on the lesson delivery on learners in the Basic School. Literature reviewed focus on, teaching, learning, multimedia, types of multimedia and why use Multimedia and summary.

2.1 Teaching

Teaching is fundamentally concerned with how best to bring about desired learning through activities (Kyriacou 1995). The World Book Encyclopedia (2001) explains teaching as "helping other people to learn". This makes teaching, the most essential ways that enable people to relate to one another as far as knowledge and skills acquisition are concerned. Teaching helps people acquire the knowledge they need to become well standing memebtrs in a community, to earn a living. Teaching is also said to be a vehicle for transferring knowledge another person. Education is not a monologue but a talk wherein one companion is speaking, but the other companion may also, help with the aid of simple participation using question and ansswer. According to Bruner (1994), teaching is the ability to impart knowledge to a group of people, or it is to show the way to something or a process. Agun and Imogie (1988) also explain education as any interpersonal influence that can be

exercised by someone and aims to change the ways and behavior of an individual. Education is therefore about facilitating learning. So far as consideration of knowledge transfer is undoubtedly important, it is valuable in relation to the quality of learning that is triggered.

According to Kochhar (1985), teaching is “an art with children as the raw material that the teacher has to deal with”. As the author indicates, the teacher unconsciously designs the child entrusted to him or her and on purpose the teacher modifies the child. In this regard, teaching becomes a sublime art because it is difficult to take away the teacher and teaching. What this indicates is that the facilitator reflects himself or herself into the learner; thereby putting an indelible mark in the learner, growing thoughts of the child who consequently usually takes after the instructor. Kochhar believes that teaching need to be powerful to make learning possible. The author explains that effective teachers learn how to adjust the level of difficulty of learning tasks for particular students.

2.3 Learning

Kundu and Tutoo (2004) define learning as an experience gained through changes. Learning is considered as process and not as passive observation. According to Akimpelu (1991), learning is an activity carried out only by the learner; nobody can learn for another person, a person can learn without being taught. Learning, according to Smith (1999) it is the storage of information that can be reproduced. There is a link or an communication between the student and the environment during the learning process.

The kind of change called “learning” exhibits itself as a transformation in behaviour, and the inference of learning is made by comparing what behaviour can be exhibited after such treatment. Learning is a process and it involve changes occurring over a shot duration which enables the learner to respond more adequately to the situation. Thus, we learn to play the piano, we learn fractions, we learn to drive. Moreover we grow in intelligence and we grow in moral stature. However, the factor of growth and learning will be so inextricably intertwined that either or both words will need to be used.

True learning yields changes in the conduct (behaviour pattern) of the learner. Every experience produces a change in the mental structure of the learner which in turn affects the conduct of the learner. This, in short, is the objective of learning (Kochhar 1985). The capacity to learn however differs from age to age and from individual to individual and that ability to learn involves not only intellectual capacity but also social, economic, perceptual, physical and psychological factors. Human beings study through their senses. The ability to see, experience, hear, scent and taste therefore gives the way through which communication between man and the environment.

Lowenfeld and Brittain (1982) also explain that the development of perceptual sensitivity must be a very important part of the educational process. In their view, learning does not merely mean the accumulation of knowledge; it also implies an understanding of how the knowledge can be utilized. It can

be deduced that studying is the process wherein new behaviour is learnt, strengthened or weakened as received as both perception or behaviour. This means that knowledge gaining is an active and not passive activity that depends on the learner. Learning is a personal involvement, meaning the learner should be able and willing to assimilate the material being presented.

According to Kyriacou (1985), there appears to be three central and crucial aspects to any consideration of student engagement in the activity of learning. These are attentiveness, receptiveness and appropriateness, which are explained in the following sections.

- a) **Attentiveness:** This relays to the ways in which educators can elicit and maintain a high level of student attention and concentration by varying the learning activities, getting students actively involved, and utilizing students’ interests.
- b) **Receptiveness** depends on how teachers can make use of the varied types of student motivation towards learning.
- c) **Appropriateness** refers to the ways in which facilitators need to match the learning experience to each student’s current state of knowledge and understanding, and at the equal time guaranteeing that the learning activities actually foster the desired educational outcomes. This implies monitoring of students’ progress, presenting quick corrective feedback, structuring and presenting activities to facilitate meaningful learning, and ensuring that cognitive processes being fostered.

2.2.1 Multimedia

The term “multimedia”, according to Romiszowski (1988), refers to devices and materials employed in teaching and learning. It includes hardware such as whiteboards, radios, televisions, cassette recorders, videotapes, as well as recorders and projectors. and software such as transparencies, films, slides, diagrams made by teachers, real objects, cartoons, models, cards and photos (Opoku-Asare, 2004). Similarly, Scanlan (2003) states that multimedia includes all the materials and physical resources that an instructor could use to implement instructions and facilitate students’ achievement of learning objectives. These may be traditional materials such as cards, handouts, diagrams, slides, overheads, real objects and videotapes or films, as well as more recent materials and methods such as computers, DVDs, CD-ROMs, the Internet and interactive video conferences.

Talabi (2001) says that multimedia is generally designed to provide realistic images and replace experiences to gain experience with the curriculum. However, it requires an imaginative approach on the part of the teacher, who must constantly look for new techniques, so that teaching with multimedia content leads to effective results

2.4.1 Types of Multimedia

The following sections states the different types of multimedia outlined by Talabi (2001), and these are.

- a. Graphics/Charts
- b. Projected Aids
- c. Tape Recordings
- d. The computer
- e. The internet
- f. Television Broadcast
- g. Video tape

Advantages of using multimedia

Powell (1978) explains that some ideas cannot be reliably communicated through books. For example, music must be heard, paintings seen, perfumes smelt and wines tasted. Some learners learn things either by reading or hearing and others by combining the senses. Powell notes that experiences such as seeing the way colours change in bright light cannot be learned by reading a text but by experiencing in a different way. This is why understanding media must be employed in understanding of the concepts of all settings particularly where children are involved. Observing how things grow "smaller" with distance will help learners develop a keener perspective and hence responsiveness to their world.

He also stated that multimedia convey information more effectively if time is spent planning their design and explains that what is involved learning environment should directly be relevant and appropriate to the local community. This shows that any media used should reflect what exists in the learner's immediate environment. The authors also hold the view that multimedia will enhance students' learning if a well-balanced preparation is made for a particular task. This is likened to prescribing the correct medication and dosage to suit a particular medical problem.

Disadvantages on Multimedia

Agun and Imogie (1988), note that unless the teaching strategy which is appropriate at a given stage requires imparting information or knowledge in a mode beyond the natural capacities of the teacher, multimedia are unlikely to be of value to the lesson. They indicate that aside the importance associated with the use of multimedia, there are certain things multimedia cannot do either directly or indirectly, even though they can help in a number of ways.

- 1) The impression that new technology would replace teachers makes some teachers to see multimedia as threats.
- 2) Lack of flexible curricular to incorporate the appropriate learning materials.
- 3) Inadequate time and laziness on the part of teachers to use multimedia. Multimedia though have some weaknesses; the variable benefits the multimedia provide should not be overlooked

3.0 METHODOLOGY

3.1 Research Design

The study employed the use of questionnaire administration

and observation to collect data on the use and impact of multimedia on the teaching History in the basic.

Since it is challenging in developing a significant understanding of human experience without taking into account the interaction of values and beliefs, Lincoln and Guba (1985) argue that human inquiry requires frequent, continuing and mindful interaction between inquirers and their respondents and that inquiry must maximize rather than minimize this kind of contact. In order to know exactly what kind of instructional media are used and the impact these make on students in the classrooms where they are used in the selected Basic Schools, the qualitative research method which, according to Fraenkel and Wallen (2000), examines the quality relations of activities and situations, was employed in this study.

3.1.2 Qualitative Research Method

NAEA (1997) defines qualitative study as a Methodical process of description, analysis and interpretation of knowledge of everyday life. Qualitative approach tends to report on what actually pertains. The term "qualitative" encompasses phenomena that occur in the natural settings and their complexities. Leedy and Ormrod (2005) indicate that qualitative research seeks to understand the human and social behaviour from the participants' point of view which could be in the social background such as a community, school or institution.

Qualitative methods offer ways that can lead to deeper discoveries. Levels of significance in the material studied. Discover the quality of relationships, Activities, situations or materials. The main objective of this type of enquiry is to portray the complex pattern of what is being studied sufficiently and deeper so that someone who has not experienced it can understand. The qualitative research design facilitated investigation of instructional materials used by teachers in the transfer of knowledge and skills to students in Basic Schools.

Though qualitative research emphasizes the description and interpretation of data in words, data in terms of numeracy was collected in the process and analyzed to understand naturalistic enquiry.

3.2.1 Sampling Techniques

Sampling according to Osuala (2005), it is taking a portion of the population as a representation of the total population. Cluster sampling is a technique in which the entire population is divided into groups and a random sample of these clusters is selected (Osuala, 2005). This is used when the total population is divided into groups or clusters and a sample of the selected group is used.

3.3 Instrumentations (Research Tools Employed)

The data collection techniques includes: observation and questionnaire were used.

3.3.1 Observation

Direct observation of behaviour has become an important measure of assessing the impacts of instructional media. For example, more can be told about the complete

growth of a child from day to day than in any other way. In the field of education, observation comes handy to judge a teacher's performance in teaching. Assessment of practice skills can also be better done by observation. Observation underlines all research, it plays a part in the survey procedure but even experimentation is simply observation under controlled conditions. It is a more natural way of collecting data. Data collection through observation may yield more real and true data than by any other method.

The degree of observer participation can however, vary considerably. When a researcher takes on the role of a complete member in a group, his personality is not known by any of the individual being observed. The researcher interacts with individuals in the group as naturally as possible as one of them. When a researcher chooses the role of participant-as-observer, he or she participates fully in the group whilst studying but makes it clear that he is doing research. When a researcher chooses the character of observer-as-participant, he or she identifies fully straight off as a researcher but makes on pretenses of actually being a researcher of the group being observed.

3.3.2 Questionnaire

A questionnaire is a tool to ensure the answers to the questions on a form that the respondent fills in. The procedure is usually used when it is not possible to display all the people who need answers. Fraenkel and Wallen, (2000) stated that questions that call for short checked answers are "restricted or closed" while the "open or unrestricted" type calls for free response in respondent's personal words with no clue provided. A questionnaire can be structured or unstructured and have close and open items. The structured survey contains fixed, tangible and directed questions whereas the unstructured may comprise of partly completed queries.

3.4 Intervention processes

This study is carried out to deduce frequency of usage of multimedia teaching tools by teachers and to investigate the reasons why the teachers seem to be reluctant to use and to integrate multimedia into lessons. It also examines what obstacles affect the uses of technological teaching tools and ICT in e-learning in the school; the limiting factors and the constraints.

3.4.1 Pre-Intervention

In preliminary observations made by the researcher, it was found that teachers were not utilizing multimedia in their teaching. The frequency of their usage seemed to be limited and they do not appear to make effective impact. This scenario is supported by findings from questionnaires which reported that most of teachers do not use multimedia teaching tools in classroom at all especially the subject in question. There are limitations in using the Multimedia tools and it is imperative to find out in more detail why the use of it is so.

3.4.2 Interventions

While there have been both negative and positive reports of

technology in the classroom, science and research is tending to side with the good reports. Many research show what the advantage of multimedia is actually about and many of them have found is that multimedia can stimulate one or more sense at a time. Since it can stimulate all the sense at a time, scholars have establish that there is more attention getting and attention holding with multimedia than in the normal class without it. There are alot of evidence that supports the effectiveness of info technology-assisted project based learning. When there is multimedia in the environment students retain more of the knowledge in their lessons.

The other huge advantage of technology in classrooms is that it is better preparing students for their future. We lack in performance in specific areas, but what many people do not talk about is that we are much less tech savvy than other countries as well. Adding multimedia to the class will not just help our students learn better and catch up to other countries in the grade book, but it will also be an asset into catching up to other countries uses of technology. We need our students to be as prepared for the real world as possible, and adding technology to the class is the first step. Children need to be using tools that they will be using for for life long activities.

Multimedia gives students the opportunities to represent and express their prior knowledge. Teachers have said that using technology allows students to act as designers, using tools for examining the world. This helps student access and understands information and organizes their personal knowledge. The biggest part about multimedia is that it fosters engagement in the learning environment that provides valuable learning opportunities that are often missed without it.

Combating the Poor Academic Performance of the Basic School Student in History

Since child training is a mutual obligation of parents and teachers (home and school), parents should see themselves as partners in promoting education. So that the factors resulting in poor performance of students in the History, as identified in this research: large sibling size, lack of funding or resources, improper use of or inadequate supply of textbooks, students' use of Pidgin English, poor methods and strategies for teaching History by teachers and social stratification, could be reduced or eradicated entirely.

There is need for orientation and or in-service training to be organized periodically for prospective or working History teachers.

The government needs to revise its policy on the supply of school teaching materials with the view to bridging the ever-widening gap in resource demands and mobilization for efficient lesson delivery in all schools. Moreover, the Parent-Teacher Associations should pull resources together to build well equipped libraries and encourage students to use them.

Finally, the publication of textbooks by private Ghanaians for sale should be encouraged so that students can easily get them to buy.

Strategies to Help the Basic School Learner to Appreciate Multimedia in Their Learning Process

- Current media assets can be used with-in lesson deliver to stimulate interest in and expand know-how of the fabric being taught. This traditional approach is teacher-centric, and records is pushed to the learner
- Media allows the teachers to transfer professional skills to young learners. Given the remarkable rate of technological changes, teachers face an ongoing challenge in deciding on the most effective media platform to reach their students. Trachers also can create their very own media too efficiently and effectively convey information.
- Current media resources can be used to have interaction with students and facilitate knowledge transfer.
- **Student-created media** involves an excessive degree of engagement; promotes individual getting to know, social relationship and involvement; and is tremendously customizable and collaborative pupil-centered media offer an opportunity.

Types of Multimedia in the Teaching and Learning Settings Traditional Multimedia

The most common types of multimedia still remains the traditional form, using only a single content type such as a video recording or DVD, a filmstrip, a slide show, or a piece of music. In many cases, these are still the most appropriate types of multimedia to help your students learn a documentary film, for example, is th best way of bring information together in an attractive way that was used by experts. Below are examples:



Fig.1. Slide, Disc and Filed Documents

Mixed Multimedia

Course resources can be linked together with several types of multimedia, in a fashion that allows you to pick and choose what kind is the most appropriate to you. For example, if you were trying to teach your students about the law of gravity you could put together a computer slide show presentation that blends an image of the mathematic formulas, an anima-

tion showing how gravity keeps planets rotating around the sun, a film clip of a scientist talking about Isaac Newton and a YouTube video of someone performing a demonstration that illustrates how objects of different weights fall at the same time. Below are examples:



Fig. 2. Experimental kit and Desktop

Hands-On Multimedia

The general accessibility of digital cameras and HD video recorders--many of which are now even built into cell phones--makes do-it-yourself multimedia a more accessible option than ever. As an educator, you can produce your personal videos: if an experiment would be too time-consuming, or dangerous, to perform in the classroom you can record it for later playback; this allows you to edit it for length and to provide commentary as your students watch the recording. You can also inspire your learners to work with multimedia in their projects. For example, a long-running class project on plant growth could be translated into a stop-motion photographic animation.



Fig. 3. Laptop and Projector

Interactive Multimedia

Internet-enabled classrooms can give educators even more power to occupy their students with research after lectures. Video chatting and Internet presentation software like those used by distance-learning institutions can let your students have a "virtual guest lecture" from an expert in any subject area who lives far away. Combining interactivity with a "hands-on" mentality, online environments can also be a tool for teachers to link remote classrooms, bringing students together from around the world. Below are examples of the Interactive Multimedia technology.



Fig. 4. Smart Devices

Using multimedia tools in History Education

1. Simulations that allow students to interact with simulated events environment.
2. Adventure learning is a hybrid distance learning approach that enables students to explore real-world problems.
3. Digital storytelling is the process of using images and audio to tell stories about life, events, or time (community history, politics, business, and geography).

Ways to incorporate multimedia into the History Education classroom

- Research the web to find things about different countries
- Look at maps and countries to look at their locations
- Videos to show movies dealing with the unit being covered
- PowerPoint, for note-taking in the classroom
- Resources such as Skype to chat with others from any part of the world using instructional software in History
- Virtual trips- Online activities in which students explore around the globe and or communicate with learners at those sites.

3.8.3 Post-Interventions

For this purpose, an experiment from the same group, one of the the group is experimental and the other has been manipulated. Each of them consists of 10 female students and 10 male students. The first group received the lesson on the use of a Computer presentation software that uses multimedia as an experimental tool. The group received the same lesson with the use of the traditional makeup approach uses the traditional approach as a control group.

Both sets were exposed to pre & post-tests in the subject tackled by the teacher. The analysis result of the pretest confirmed no statistically-huge differences, which in flip proves the equivalence of the two groups. In the meantime, the evaluation result of the post test confirmed the subsequent:

3.8 Data Analysis Plan

Summaries of the data amassed had been prepared at once after transcribing the sphere notes from Questionnaire management and classroom obsrvation processes are prepared into individual reports reflecting the students' performance.

4.1 Instructional Material Found in the School.

Instructional media found in the Basic School are chalkboards, charts, models, bulletin boards, textbooks and are described as follows:

a. Chalkboards

Chalkboards in the classroom are all locally made of cement or plywood, painted black and fixed to the wall facing the students. They are large for the teacher to put things across

during the teaching-learning session. The surface of nearly all the chalkboards seen in the schools looked scratchy as seen in Figure 1.

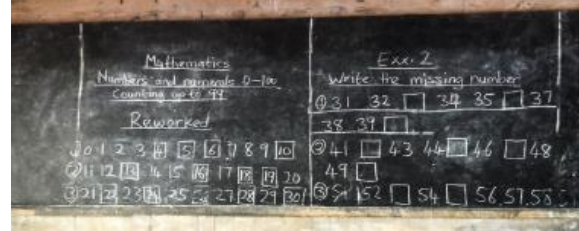


Fig. 5. Backboard

Figure 1 - State of sample chalkboard

The pale state of the chalkboards pose reading difficulty for the students as what the teachers wrote on them were too faint for easy reading by students seated at the back of the classrooms in particular. This could negatively affect the children's reading habits and eyesight.

d. Textbooks

Textbooks found in the schools shows the individual subjects taught under the Basic School curriculum. The books are mainly kept in a common room and others kept in cardboards. The books found were all in good condition. The location of the books indicates that the students can use the textbooks but with the permission of the subject teachers. Having to seek permission to use textbooks is likely to make textbooks unavailable for revision as and when the students want them. Figure 5 shows textbooks available to students in the Schools.



Fig. 6. Textbooks

4.2 History Education as a subject

History Education is significant because it teaches learners fundamental ideas of social civilizations, economics and political skills and train them into cultured, creative citizens. The importance of basic school History Education is to aid students to understand, participate in, and make informed decisions about their world. The lesson delivery processes within History Education are exclusively planned to develop these abilities, starting with the basic learners in our schools.

However, lessons in History were observed in the school. It was realized that in the school teacher used the chalkboards and textbooks as the predominant lesson delivery resources in the lessons observed. The teacher made reference to countries which use different types of constitution. It would have been good for the teacher to have brought a copy of the

1992 Constitution of Ghana among others, to show to the students during the lesson. This would have enabled the students examine what constitutes Ghana’s Constitution and those used in other countries.

4.3 Analysis of the Pre - Test and Post Test.

Table 4.1: Pre-Test Results

Scores Range	No. Of Students	Percentages (%)
0 to 5	13	32.5
6 to 10	23	57.5
11 to 15	3	7.5
16 to 20	1	2.5
Total	40	100

Table 4.1 shows the scores of students during pre-test, the tables shows that after the lessons without any form of multimedia, only 1 student represent (2.5%) score the high mark. 3 of the students represent (7.5%) score above average, Whiles majority students, thus 23 and 13 representing (57.5% and 32.5%) scored below average and poor, this shows the poor performance of pupils in History Education as a subjects.

Table 4.2: Post Test Results

Scores Range	No. Of Students	Percentages (%)
0 to 5	0	0
6 to 10	8	20
11 to 15	20	50
16 to 20	12	30
Total	40	100

Unlike Pre –Test, the table 4.2 shows the posttest performance of the students and it indicates that after the teachers were introduce to the in-corporation of multimedia in their lessons, majority of the students thus (12 and 20) representing (30% and 50%) scored high and above average marks respectively. Only 8 students representing 20% scored below average while none of the students scored poor in the test. This revelation indicates that there is an improvement in student’s performances. Comparison of the pre and posttest of the students is show I figure 4.1 bar graph.

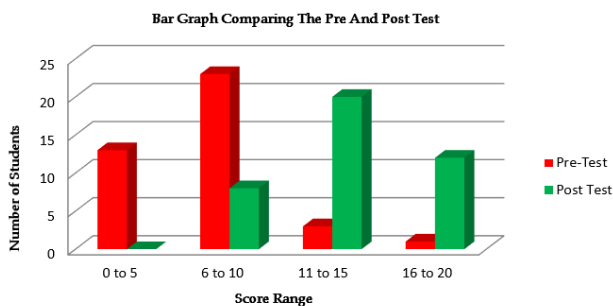


Figure 4.1 Bar Graph of Pre-Test and Post-Test

Comparatively there had been great improvement in students’ performance in History to level where none of the students score poor marks after the intervention whiles before the intervention majority had scored less than 10 thus below average.

4.4. Discussion of the outcome

Multimedia has reformed the lesson delivery processes. The lessons delivered in this way are more effective and better understood. The influence of multimedia is in it multi-sensory ability which arouses many senses of the learners. Multimedia is an innovative and real teaching and learning tool, because it aids students motivate their learning process and helps them understand the information presented. It helps teachers’ present information in an effective way. Learners become vigorous partakers in the lesson delivery process instead of being inactive learners. From the above results, it is obvious that the use of video in lesson delivery is more effective than the abtrate teaching method. It is more effective for the cognitive and attitude development of the students as compare to traditional method. There is wide gap in the achievement score of both groups. Multimedia helps to develop higher order cognitive skills and appeal the student psyche towards learning. The use of animations, multimedia makes lessons attractive and affective.

5.1 Summary

Evidence from the study shows that classroom use of multimedia impact positively on students’ participation in class activities and learning in Basic School. From the data colleccted through observation and questionnaire administration, the study is more on examining how teachers in the Basic School use multimedia available to them in the lessons they teach, how they use Multimedia particularly in History Education, and the effect of multimedia usage.

However, unlike the practice reported in the literature in developed countries, what was observed in the research contained of a few conventional and some non-conventional multimedia. All that the school had was chalkboards in each classroom and insufficient quantities of prescribed textbooks to guide lesson delivery in the school. Models, pictorial illustrations and real objects were not available in the school.

This suggests the need for teacher training colleges to provide their trainees with the right kind of knowledge needed for teachers to be in charge of lessons delivery and ensuring their students get the right information by using multimedia in the lessons they teach. The curriculum guiding the professional training of Ghanaian teachers does not seem to be providing adequate incentives for Basic School teachers to identify or develop multimedia materials appropriate for the subjects they teach.

The inadequate supply of the most appropriate conventional multimedia materials like models, computers and charts illustrations by the Ministry of Education has led to poor axhevement of students in Basic School.

The implication is that changes in teacher training has not matched corresponding changes in basic education, and hence

teacher attributes and attitude to teaching practical lessons that can induce learning and high academic performance in the specified Basic School subjects has not been achieved.

5.2 Conclusions

The study makes the following findings very clear:

1. Inadequate of wall charts, and different conventional media to supplement the use of Traditional teaching materials in the basic schools is making it challenging for teachers to offer high-quality teaching to promote higher achievements .
2. There is inadequate financial and logistics support for teachers to put in more effort and help their students gain more knowledge from their lessons.
3. Inadequate of supervision by the Heads of the schools make teachers to teach abstract lessons even where the topics demand usage of some multimedia.
4. Inadequate of research into the designing and production of multimedia by teachers is negatively affecting teacher performance and learner output.

5.3 Recommendations

To intensify the use of technology in the basic schools and promote higher academic achievement for Basic School students, the following recommendations are suggested for deliberation and implementation:

1. The employer should ensure the supply of multimedia for use by teachers. Such media ought to encompass domestically produced materials generated via teachers and useful resource specialists for better lesson delivery.
2. The employer should provide funds to support local production of multimedia by the Teachers Resources Centre to train and encourage more teachers to produce and use them.
3. Teachers should encourage their students to bring such items as empty cans and plastic containers that the teachers could use to help their students to visualize abstract concepts to help them understand the relevant issues.
4. Workshops and seminars have to be organized to orient basic school teachers to improvise modify-local multimedia sources and the proper approaches to apply them during lesson delivery. This will encourage appropriate use to achieve the lesson objectives and encourage the students to use them as learning resources
5. Excursions and tours can serve a great way of showing school students to the environment to get firsthand information and gaining knowledge.

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