A Comparative Analysis: Use of Visual Aids for Instruction in Kenya

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Abstract – Effective and Efficient construction of knowledge, skills and attitude in an attractive, interactive, engaging appealing and fashionable learning for Equity, Quality and Relevance of education is a concern by many scholars. This is due to rapid emerging developments in education and the modern world. Among these developments are the increased demands for relevant and quality education. These developments are putting undue pressure on education and as a result has brought into focus the most demanded for and yet elusive aspects of education – use of visual aids in Kenya, policy and practice. It is in the context of this focus that this paper interrogates the present topic. Visual learning resources enhances cognitive and retention abilities among learners for effective and efficient learning. This paper discuss historical background of Visual aids in Kenya; legal framework on visual learning materials; comparative analysis of forms of visual aids for learning, role of visual resources, criteria for selection of visual resources, management of visual resources in Kenya, challenges in using visual resources and, conclusion

Keywords: Quality education, comparative analysis, legal framework and Management of Visual aids

Introduction

The use of learning aids in the instructional process dates back to ancient times. They were characterized by Greeks and Latin people who were taught and learned things practically. Callaghan (1988) argues that, "Once upon a time, when reading and writing had not been invented, men and women taught their children by means of very simple local tools." This simple technique created the quality outcomes in learning and teaching processes because learners observed physically and practically on the learning aids related to the particular issue. For instance, boys were taught hunting techniques using spears and arrows by, while girls were taught by their mothers on how to prepare food. These provided a blueprint on how the visual learning aids influences learning in early Schools. Visual aids helped learners to remember the facts more clearly and for a longer period (Brown et al, 1982).

As societies became more advanced, people that spoke different languages came into contact with each other. They developed pictograms as a means to communicate with other communities. The pictograms were images that represent physical objects and were used to share ideas or ask questions as a way of communicating. These worked overtime because people developed certain characteristics that they associated with different objects. A tree, for instance, has branches and different kinds of leaves. This sign is universally recognized because the characteristics and meaning of the symbol are, at a basic level, shared around the world. The ability to communicate visually increased more when people began printing with woodblocks. This allowed for ideas and information to be reproduced, shared, and preserved in a non-verbal way. These documents were translated into other languages and were capable of traveling around the world

In an academic context, the study of symbols and visual communications is called semiotics. The semiotics analyzes how people make meaning out of symbols, and how those symbols are interpreted to pass massage. A basic example would be like the one made earlier about a tree. This is simply called Visual Literacy, which is defined as the ability to make meaning from what we see.

Educators use visual literacy in education to communicate to students. They are often shown photographs or drawings to make meaning of a topic they are being taught. This can get even more complicated when it extends to behaviors. Using example of Native Americans, what if you saw someone dressed in that same costume and they were hunting with a primitive-looking bow and arrow, would this strengthen your earlier association and interpretation? These types of behaviors and performances are referred to as signifying practices, or the behaviors

and activities associated with a certain group. Visual learning aids such as pictures, drawings or dynamic video is often designed to facilitate learning and have a positive effect.

Visual learning aids are often designed to facilitate learning. The effectiveness of visual information is concerned with cognitive learning and retention. The performance criteria of learning materials are focused on comprehension and recall. For these reasons, teachers are required to think in terms of how visual aids will promote learning when preparing and using the visual learning aids. It is then more correct to refer to them as learning aids rather than teaching aids as perceived by Macharia and Wario (1989) who assert that; "I hear and I forget, I read and I remember and I see and I understand".

Surveys show that most teachers in developing countries, such as Kenya, use visual learning aids during college training for purpose of passing examination and stop using for classroom instruction after leaving colleges. This is probably because they tend to be involved in extra work and more demanding organizational techniques on the part of the teachers as posited by Macharia and Wario (1989. Perhaps this could be due to lack of clear policy guidelines from the Ministry of Education on the use of visual learning aids in schools.

The use of learning aids in the teaching learning process goes back to ancient periods that were characterized by Greeks and Latin people. Callahan (1988) states that, "Once upon a time when the mankind was young; reading and writing had not been invented, therefore men and women taught their children by means of very simple visible local tools." Visual aid was an important technique which created the quality outcomes in learning and teaching processes, because learners observed physically and practically the learning aid that is related to a particular issue.

Scholars in Kenya are putting emphasis on student's learning which is a complex process and, can be defined as change in disposition or as a relatively permanent change in behavior over time that is brought about partly by knowledge acquisition. Learning can happen as an outcome of freshly attained skills, principles, perception, knowledge, facts, and new information at hand (Adeyanju, 1997). Learning at any stage can be reinforced with different visual resources because they stimulate, motivate as well as help in focusing learners' attention during the instructional process. Visual aids therefore arouse the interest of learners and help the teachers to explain the concepts more easily. Singh (2005) defines visual aids as any devices which by sight increase the individuals' practice. Visual aids are effective tool that "invest the past with an air of actuality." Visual aids distribute the learners with true knowledge. When teachers use visual aids as teaching aid, it invokes students' participation in classroom.

The uses of visual aids also encourage the body movement and it may strengthen the control. There is famous Chinese proverb "one sighted is worth, a hundred words" (Jain, 2004). It is a fact that we take knowledge through our intellects. There is another maxim that "if I hear I forget, if I see I remember, and if I do something I know it" so it means that use of visual aids make the teaching and learning process more effective. Kishore (2003) asserts that visual aids stimulate thinking and cognize. Therefore the use of visual aids in learning process has multifarious values (Mohanty, 2001). Visual aids give chance to speakers to make a more professional and consistent performance. The teaching career is full with limitless opportunities to enrich the academic survives of students, while some ideas and educational goals will be easy for students to hold, others will need a teacher to think productively to ensure that important learning aims are met. By visual aids in teaching is one mode to enhance lesson plans and give students additional ways to process subject information (Kunari, 2006). Visual aids are devices that present units of knowledge through auditory of visual stimuli both with a view to aid learning. They concretize the information to be obtainable and help in making learning practice apple real, active and vital. They supplement the work of the teacher. The great educationist Comenius has well said: The foundation of all learning consists in representing clearly to the senses and sensible objects so they can be appreciated easily (Singh, 2005).

Visual aids come in form of wall charts, exemplified pictures, symbolic materials and other two dimensional materials that may be locally made or commercially produced. There are also audio visual aids like television, radio, and all kinds of projectors with sound attributes. Television and radio programs provide another useful learning resource. When accurately used, they aid in the achievement and they hold the attention of students. Clearly, a major goal of all teaching is for the students to be able to retain as much knowledge of the topic as

possible, particularly the main points. Frequent studies have attempted to determine how well learning resources serve this purpose.

Good learning visual resources can help solve certain language barriers as they provide accurate visual image and make learning easier for the student (Chacko, 1981). They also help to clarify the relationship between material objects and concepts. By symbolizing the factors tangled, it is possible to visualize abstract relationships. Instructional aids have no value in the learning process if they cannot be seen. Therefore visual aids must be visible to the whole class. All calligraphy and illustration must be seen easily and clearly by all learners. The efficacy of aids can be enhanced by proper sequencing to build on former knowledge.

According to Ranasinghe and Leisher (2009) integrating technology into the classroom begins when a teacher prepares lessons that use technology in meaningful and relevant ways in creating a collaborative learning environment. Koç (2005) says that the integration of visual technology into the curriculum means using it as a tool to teach academic subjects and to promote higher-order thinking skills of the students. Developments in visual technology led to innovative practices in the classroom hence practical improvements in the creation of visual aids for classroom use.

Therefore, visual aids are very important learning resources during the teaching and learning process. Visual aids provide chance for learners to learn visually and are more effective and easy for human beings. During teaching with visual aids, students' effort is to identify the aid, recognize its functions, its interpretation and, to understand its use. They compare it with their pre-concepts, adapting the new sensation and pursuing to recognize about it. Hence the visual aids stimulate the students and keep them active for eliciting in teaching and learning process. But when teachers do not use adequate visual aids as teaching materials, learning barriers are created.

Legal Framework

Education is the most important component of life. The fundamental elements of good education are excellent teaching skills and learner's willingness to learning. Learning process become active if learners are encouraged to explore and ask questions to polish on their creative thought. With increasing technological innovations, different techniques are being devised for better learning. It is on this basis that the government of Kenya has had reforms in education since independence.

The Ominde Commission of 1964 was mandated to restructure the entire education spectrum. The commission gave their recommendations to the government to reform the education system towards national development without discrimination. This recommendation was incorporated in school curriculum as an instrument for the conscious change of attitude and relationships. Print learning materials e.g. text books were produced with various diagrams, maps pictures and photos (like the flag of Kenya) to prepare children with a sense of nationhood. The commission recommended free primary education so as to diffuse the recommendations throughout the country. This led to rapid growth of Harambee schools and other unaided schools that lacked basic facilities for learning. The commission recommended in-service training for teachers to boost their skills on use of, among others, visual aids. These visual resources, among others, were to be supplied by the government. This has remained a challenge and now the government is asking parents and other stakeholders to provide support.

The Ndegwa commission (1970) recommended establishment of District Education Boards to promote primary education. The commission suggested a thorough review of the curriculum in collaboration with industry and commercial firms to improve on relevance of vocational and technical training. To realize these, visual learning aids were regarded as the cornerstone. The Gachathi Report (1976) ignited educational reforms where cognitive abilities of leaners were a matter of concern. This called for use of Visual learning aids in teaching-learning process.

The Mackay report (1981) recommended restructuring education system to 8-4-4 so as to inculcate skills in learners to become self-reliance. The process was skill-enhanced learning and increased retention. The Kamunge commission (1986) advocated for the introduction of in-service courses. The purpose of this was to work on teacher's visual literacy competencies and instructional innovativeness. The Koech commission (2000) proposed introduction of practical subjects where learners see and do. The sessional paper no. 1 of (2005) called for regular review of curriculum to improve its relevance. Calculators were introduced in secondary schools as a visual learning aid. Douglas Odhiambo task force (2011) recommendations on curriculum reforms are still undergoing

piloting process. They are advocating for a framework that identifies the knowledge, skills and competencies that all learners will acquire to remain relevant globally.

Comparative Analysis

1. Overhead Transparencies/Projector Slides

Projection technology was first introduced in 1950s to corporate America. The technology has evolved drastically through the following types of projectors.

- a) **Opaque Projectors:-** Is one of the earliest forms of projection that allows the user to project printed materials or small objects without having to convert them to another medium. Example includes the projection of a single page of a text book onto a wall. A teacher can project a diagram from a book that would otherwise be complicated and time wasting when drawn on black board. The opaque projector was in use for nearly 60 years where objects were projected by shining a bright lamp on the material to be viewed and directing the reflected light through a projection lens. With this technology, the user needed to be mindful of the heat generated by the light source that can damage sensitive documents or objects.
- b) Slide Projectors:- Slide projectors have also been around since the 1950's. Unlike opaque projectors, slide projectors require that the presented material be transferred to a 35mm slide allowing the teacher to project virtually anything that can be put on film. Although the device is costly in creating slides, the benefit is the versatility of the device. For this reason Kodak, the leading supplier of slide projectors, discontinued production in October 2004.
- c) **Overhead Projectors** In some ways an overhead projector is very much like a slide projector in that the information to be viewed must first be transferred to another medium, in this case a transparent sheet of flexible material called a transparency. A transparency of any document can be easily generated with a copy machine. Once created, the transparency can be placed on an overhead projector and projected onto a wall or screen using a lamp and optics that are built into the projector. One of the benefits of the overhead projector is the ability to annotate the projected image while presenting. Overhead projectors are still widely used in secondary schools, colleges and universities as visual learning aids.
- d) **Digital Projection Panels** In the late 1980's overhead projectors found further use in teaching-learning with the introduction of digital projection panels. They consisted of a large Liquid Crystal Display (LCD), electronics, cooling fan, and a plastic or metal enclosure with a glass plate on both sides of the LCD. It effectively became a giant monitor for the computer allowing fully interactive presentation, education, and training making them the first digital projectors. Due to technological advancement, video projector panels were introduced and were quickly followed by multimedia projector panels that could support video and data. Projection panels are still in use in instructional process.
- e) **Computer Projectors** The fully integrated digital data projector came into existence in the early 1990's and served primarily as a computer display projector for business, education and training. It essentially combined the overhead projector and the digital projection panel into one device making it considerably smaller and more easily transported. As the computer projectors got smaller, lighter, and cheaper they became popular with mobile presenters. Today data projectors are used in a wide range of applications including mobile presentations, conference rooms, classrooms, training, gaming, simulation, control rooms, museums, and retail advertising. This has made learning real and motivating.
- f) Video Projectors The digital video projector also came into being in the early 1990's and like the early computer projectors, they were large, heavy and expensive. They also suffered from poor image quality, high cost, and limited portability. But much has changed since the video projectors of the early 1990's arrived.

Video projectors also serve nicely as TV projectors that can project your satellite receiver programming or local broadcasts. With today's TV projector you can also attach a DVD player or any of the high definition DVD players and enjoy a movie of your choosing. There are even TV projectors with integrated DVD players and audio systems that provide a video boom-box for entertainments and instruction. This is effective in sustaining learner's attention throughout the lesson and also helps the teacher to deliver what would otherwise be a complicated concept easily.

- g) Home Theater Projectors This is perhaps the most rapidly growing market segment now that a home movie theater experience is possible for a very nominal cost for the do-it-yourselfer. For those not inclined to install their own home theater projector, there are plenty of installers available for hire. In school, most students have the know-how on fixation of home theaters. A home theater projector can achieve a 100+ inch image for a fraction of the cost of LCD or plasma flat panel. These home theater systems now compete with the neighborhood cinema and to remain competitive many movie houses are replacing their film projectors with high definition digital projectors, a larger version of the type one would buy for the home or school.
- h) **Pocket Projectors** The first pocket projectors were introduced in 2005 by Mitsubishi and they are small enough to fit in the palm of a hand. Their light source is a cluster of Light Emitting Diodes (LEDs) and most of them can be plugged into a wall outlet or powered by battery. The future of pocket projectors is very promising as optics are reduced, light output improved, packaging reduced, and prices fit for a consumer market. Therefore, teachers and school administrators can embrace this rapidly growing visual technology for classroom instruction. The projector brings back many of the features found on the opaque projector, slide projector and overhead projector through the use of document cameras. These handy devices can be connected to any projector, or in some cases, they are integrated into the projector, giving the teacher the opportunity to project a document, transparency, or 3 dimensional object. A further reduction in size has made pocket projectors a functional reality. Due to technological innovations in instruction, all the indicators point to a near future where school and college administrators are shopping for an iProjector to plug into an iPod or iPhone for instruction.
- 2. Pictures: are great for presenting anatomy, nouns, formulas, timelines and much more, basically any concept or structure that can be visualized or exists in reality. Be sure to use pictures that relate directly to the topic so that the connections to the picture can be made. With older students, you can have pictures before the topic is mentioned so that they can predict what will be discussed. Using this method provokes the students' interest and captures their attention before the topic is mentioned.

Here are a few ways to incorporate pictures into teaching:

- **Diagrams:** Create diagrams such as timelines, flow charts and even real-life photos accompanied by labels with descriptions to illustrate properly the topic or structure. Students can easily recall any key topics by remembering the diagram.
- Use of cartoons: Cartoons or illustrations create a fun and colourful lesson as students are accustomed to them. An illustrated story with dialogue can be used to explain direct and reported speech, with the student able to identify who the speaker and listener are.
- **Pop culture:** These days, students make use of social platforms which can be used to their advantage. If you relate a lesson to actual events that are trending on social media, students will be engaged in the lesson as this sparks their social interest. So do not be scared to screenshot trends and use them in a lesson.
- **3. Multimedia** includes animation, live video and tutorials which aid in engaging the student as opposed to having them read through the content, especially for older students who make use of internet sources to aid their understanding. Currently, students often use YouTube to view video content for entertainment, news and social trends. So why not use this for educational purposes? In our fast-paced technological society education has to adapt to new platforms and methods of presenting topics as opposed to an encyclopedia, dictionary or textbook.

Here are a few ways to incorporate multimedia into teaching:

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- Animations: Make use of educational animations of which there is abundance on the internet and you can begin by searching on YouTube. Find an educational animation that will relate and aid in the understanding of the topic of your lesson. This will reduce time spent on in-depth explanations of certain topics within lessons.
- **GIFs:** The Graphics Interchange Format better known by its acronym GIF is a bitmap image that refers to a sequence of images which creates a short animation. If you cannot make use of videos, then GIFs would be the next best solution as they can be inserted as an image to digital text within a word or PDF document.
- Live recordings: Recording a lesson using a camera or phone can be useful for home schooling. When students are in different locations, they can still experience a classroom lesson and feel engaged by the teacher.
- 4. Live-streams or chat rooms: Through the use of webcams and camera phones it has become easier to interact with friends and family on a video call. This can also be used to create a digital classroom through an online platform that allows video conference calls. This will give a full-on experience of teacher and student interaction with real-time solutions for any questions or problems a student may be facing within a particular lesson.
- 5. Graphic materials such as maps, graphs, charts, diagrams and cartoons. They are a perfect classroom tool because they can make complex information easier to understand.
- 6. Drama and Role Playing: when done well, performing can effectively communicate incidents and conflicting situations, feelings, and interplay among personalities.
- 7. Objects and models: These may be used to stimulate extended activity when students are asked to produce them
- 8. Displays, exhibits and study trips/excursions: they enable students to see activities such as production of paper, and places such as TV radio stations
- **9. TV Programmes, Motion pictures, film, tapes and disc recording, CDs and DVDs:** they convey movement, focus attention, and facilitate the understanding of abstract information. They can also be kept and re-used in either in another class or for repetition.
- **10. Blackboard or whiteboard:** Are another form of visual communication that used to explain ideas. A teacher can use this form to communicate the topic, spelling of a new terminology, calculation, or any other to provide clarity. Instead of expecting the learners to understand your description, it will be better to write it on the board step by step, including any important step a teacher want learners to take note of. The teacher need not necessarily erase what he/she has written as he would have to do while using a physical whiteboard, and can instead save it for future reference of your team members.
- 11. Print: This is an important means of visual communication which is used by learning institutions, events, and businesses. They are immensely popular and have been used on various occasions in teaching-learning process. The print is not used to educate but to inform. The content on print generally informs about the schedule, service, and events. All sssforms of print communications are important and almost every organization uses it in different unique ways to stand out in the crowd, to reach new heights, and to enhance learning. Examples include text books, brochures, paper handouts, memos, educational-posters flyers and posters. The print is not used to educate but to inform Role of Visual Aids

Today's students are surrounded by visual media through the heavy use of internet. They have grown accustomed to accessing information in both textual and visual forms. The use of visual aids is a

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pedagogical strategy aimed at engaging students who have grown up in a media-rich environment. Generally, visual resources are used in students' learning because of the following reasons:

- One of the most important aspects of teaching is to motivate the students' interest and promote their lateral thinking. It is not an easy task to keep students engaged and motivated during a lesson, especially when the topics are not easy to grasp from a student's perspective. Visual aids can help in this aspect. Visual aids incorporate pictures, diagrams, charts, graphs or videos which assist students in their understanding of a lesson or concept.
- Visual aids assist students in the understanding and remembering of concepts more easily. When teaching a concept using visuals, you are giving students something that they can associate with the concept when they try to recall it. All they must do is visualize the image that was used and sees the goals to be attained.

Visual aids reduce the time spent on talking. Visual aids assist a teacher in presenting a lesson clearly and smoothly, without complications or tangents. They allow him/her to explain the meaning behind vocabulary and structures without having to go into great detail.



- Visual aids provide a guiding point to refer to throughout a lesson. Visual aids not only help in aiding understanding, but also assist students to refer to previous visuals they have learnt in class or in a specific lesson to acquire some specific insights.
- Visual aids make a lesson more dynamic and fun. Visual aids add some spark and color to your lessons and reduce the text-heavy content with which students are presented. They aid in capturing their attention and take focus off depending solely on the teacher or textbook. They help the teacher to provide meaningful sources of information to learners. This helps the teacher with means for extending the horizon of experience and assists the teacher in overcoming the physical difficulties of presenting the subject matter.
- Provide the teacher with rich sources of student purpose when communication is produced jointly with the teacher and students, and offers an alternative and appealing method of teaching, hence sustaining attention.

Selection of Visual Aids

There are several factors to consider in selection of visual resources for effective teaching and learning process.

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- 1. **Teaching objectives**: teachers should base their selection on visual materials upon valid teaching objectives.
- 2. **Teaching purposes**: the material should be capable of achieving the following:
 - i. Help students acquire specific insights
 - ii. Help to develop the ability to perform a specified operation, e.g. the ability to make accurate observations, say, during a visit to a factory or institution.
 - iii. Help to develop proper attitudes such as open-mindedness.
 - iv. Appreciation of such actions as good planning and clear thinking.
- 3. **Ability to serve both the teacher and student purpose:** the teacher purpose are educational objectives, the identifiable understandings, abilities, attitudes, and appreciations that are built into the learner as a result of his activity; while the student purpose are the student goal, the problem, the assignment, and the work that he has accepted and intends to complete.
- 4. **Difficulty level:** material should contribute to easing a difficulty level.
- 5. Enhance recall: the resource should be likely to recall for explicit discussion and studying.
- 6. Learners' problems and activities: the content to be communicated must be presented in terms of problems and activities of learners.
- 7. Should be accurate, distinctive and up to date for effective learning

Characteristics of Visual Aids

Visual learning resources differ widely in their internal characteristics:

- Some are intensely rich in dialogue, pictorial and dramatic treatment e.g. dance and movies
- Some are devoid of action E.g. maps, streets and road maps, political maps, physical maps use symbols to indicate mountains, plateaus, vegetation, forests, etc.
- Some are "graphic" in diagrammatic animation, e.g models, diagrams, photographs revealing minute details.
- Some may be used at one level only, and others may be adapted for use at many levels eg study trips and excursions.
- Some are straight forward presentations by chart diagrams.

Management of Visual Aids

Teaching and learning aids are indispensable in the learning process in Kenya. Scholars and policymakers have long acknowledged the role of teaching and learning resources for the country's economic growth and competitiveness. There is abundant literature which attempts to relate the effects of visual learning resources on classroom management and effective curriculum implementation (Coleman &Anderson 2001; Birimana & Orodho, 2014; Orodho, 2013; Orodho, Waweru, Ndichu & Thinguri, 2013; Sherman, Bohlander& Nell, 1996; Woodford, Jack, Gillard, Crazy, & Glennonn, 2003; Waweru & Orodho, 2014). Doff (1988) stresses the interrelation of teachers, teaching and learning resources and students in teaching and learning operational core of education. He says, "Teaching is a three-way relation between the teacher, the materials he/she is using and the students." Providing sensory experiences for children in the classroom helps children learn better. In early grades, an opportunity for learning through manipulating objects pays dividends for internalizing knowledge by children (Badeka, 1999). A famous child educationist named Badeka (1999) wrote extensively that many years ago several play way methods were used to weave knowledge into stories and games for primary school children, exposing children to real life situations where teacher creates a conducive learning environment and the children are motivated to create their own knowledge by exploring, analyzing and understanding.

From the reviewed literature there is a positive and significant correlation between teaching-learning visual resources and teacher effective classroom management, content delivery and eventual students' learning. This is in tandem with the findings documented earlier by Waweru, (2013) in Kenya which established that proper school management of visual learning resources influences students' learning. All the foregoing studies allude to the fact that visual resource management strategy is the efficient and effective deployment of a school's resources when they are needed, and are very critical to enhance students' learning and academic performance in schools. All students have equal chances to do well in exams if visual resources are efficiently and effectively managed in schools. For this to be realized in schools in Kenya for a 21st century learner, visual learning aids should be well managed and appropriately used.

Teachers are the classroom managers of visual resources and so should understand the philosophy and concept of instructional systems design and implementation. This is the practice of creating orderly visual instructional experiences which make the acquisition of knowledge and skills more efficiently, effectively and appealing on the part of the learner. There is need, therefore, to establish synergies between and among teachers and students when selecting and using visual learning aids. This is the cornerstone on ownership and management of resources in school as a system. The question is who manages the visual learning resources in schools?

To be able to answer this question, one need to know the personnel found in a learning environment or educational media resource centres. The personnel commonly found are teachers, Students, technicians, secretarial staff and library staff. For effective management, there should be clear policies on use of resources set up by school management in consultation with these personnel. This will reduce the entropy in the system. However, this has not been realized in most schools because of lack of funds, political environment, lack of qualified technicians and librarians, lack of involvement of the leaner in selection and use of visual aids, lack of skills and innovation on the part of a teacher. It is against this backdrop that the country has witnessed fire in schools where students burn resources centres among other structures as a way of saying "this does not benefit us". Elisabeth and Shuard (1980) contend that in order to foster the learning, the teacher should give the learners chance for practical work. In this respect, teachers should be availed with a wide range of materials. They advise teachers to allow children to make their own conclusion from their findings. This will help to complete the resource management circle.

Challenges

Most High Schools do not have adequate teaching/learning resources to enable teachers deliver quality education to their students. This due to lack of adequate funding to purchase teaching/learning resources such as maps, globes and text books for use by teachers during lessons.

The second challenge is the overstretched physical facilities. This challenge seem to arise from the first since in the circumstances of inadequate funding, it becomes difficult to put up enough physical facilities commensurate to the ever surging pupils enrollment.

The third is the inefficient management of the available physical resources. Teachers are not actively involved in decision making process regarding the utilization of physical resources in their respective school. The major tone of this paper is that, most decisions are top-down with teachers not consulted on most issues except being expected to execute decisions made at the top management level.

Conclusion

This paper concludes that using visual aids as a teaching method stimulates thinking and improves learning environment in a classroom. The effective use of visual aids substitutes monotonous learning environments. Therefore refresher courses, workshops and conferences need to be organized for the teachers to improve their skills of using visual aids to benefit students. The Ministry of Education should mount periodic training sessions for teachers who are already in the field to be retrained on recent discovery regarding the use of teaching/learning resources in teaching

There is need for teachers in the field to have a forum for meeting periodically to assess the effectiveness of their teaching using the methods of instructional and educational technology as applicable to the organization

of the content of the school syllabuses at high schools, colleges and university. This is because most teachers rely heavily on text books as the main teaching/learning resources. Teachers should be exposed to modern use of other teaching resources such as audio and visual aids, computers, photographic materials such as film strips slides, photographs, flat pictures and internet. This should be facilitated by the government.

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