

# **Regulating pictures and photographs in teaching in education systems globally**

**By**

**Gilbert Nyakundi Okebiro,**

**[PhD students, Development studies]**

**Kisii University**

**Faculty of Arts and Social Sciences**

# Introduction

- ❖ Most subjects taught in both primary and secondary schools; reflect the study of the real world.
- ❖ Real world in this sense refers to existing or happening as or in fact, actual, true, objectively so and so on and not merely seeming, pretended, imagined, fictitious, nominal or ostensible.
- ❖ The subjects include Geography, home science, literature, history & art and crafts. If these are taught using pictures & photographs, the learners will comprehend the concepts & retain them for long and as a consequence effective learning.

# Introduction

- ❖ A picture is a painting, drawing or a sketch of something
- ❖ **Uses of illustrations in teaching and application** in any subject or discipline in education sector:
  1. to focus learners' interest in and attention to what they are learning;
  2. to make abstract concepts real and concrete;
  3. to have learners find out information for themselves
  4. to add value to learning experiences which verbal description alone cannot provide.

# Introduction

- ❖ A photograph is a picture recorded by means of the chemical action of light on a specially prepared glass plate or film in a camera, which can be transferred to specially prepared paper
- ❖ Photographs may be of specific features or they may show the general view of somethings.
- ❖ The photographs are presented in many forms as follows;
  - a) **still** photographs-printed on paper, available textbooks and other materials such as newspapers, magazines, periodicals, posters and calenders

# Introduction

- b) motion** pictures-such as on videotapes, television, computer discs and cinema; and
  - c) satellite** photographs which can be still or motion photographs taken by satellites, show the vegetation on the ground or movement of clouds.
- ❖ There are two types of photographs: ground and aerial.
- 1. Ground photographs**-those taken from the ground and can see object in the front. They are classified into two as ground horizontal and oblique, depending on the level of a camera.

# Introduction

**[a]Ground horizontal** are taken with the camera held at the same as the object.

- They show clearly what is immediately in front of a camera.
- They do not show clearly or accurately what is in the background because some parts of the background may be hidden.
- The hidden area from the view of the camera is known as dead ground.
- Ground horizontals are of two types; ground close-ups and general view photographs.

# Introduction

- Ground close ups or particular view-the camera is focused on one major item for house, animal or person. Ground general view photographs-objects become progressively smaller from the foreground to the background.

[b]**Ground oblique;** a ground oblique photograph is taken while the photographer is holding the camera at an angle but while standing on the ground. They are usually taken from on top of a house or a hill overlooking the lower ground.

# Introduction

**[c]Aerial photographs;** these are those taken from the air by aircraft's, hot air balloons and satallites.

- They are classified into two; aerial oblique and vertical aerial photographs.

[a]aerial oblique-are photographs taken when the camera is tilted towards the ground. They cover a large area and may include horizon. The objects near the camera appear slightly larger than those far away.

[b]vertical aerial-photographs taken with the camera directly above the object or scenery. They focus on specific features on the ground.



# Introduction

- In literature, pictures and photographs are important illustration of the content, characters and stylistic.
- Therefore of style relate to the picture or photograph must be ascertained; the kinds of composition [description, narration, exposition, persuasion, poetry] must be distinguished using, a photograph or picture.
- Okoth p'Bitek in his book 'Song of Lawino' has used the following picture to illustrate 'how Ocol's tongue is fierce like the arrow of the scorpion.'

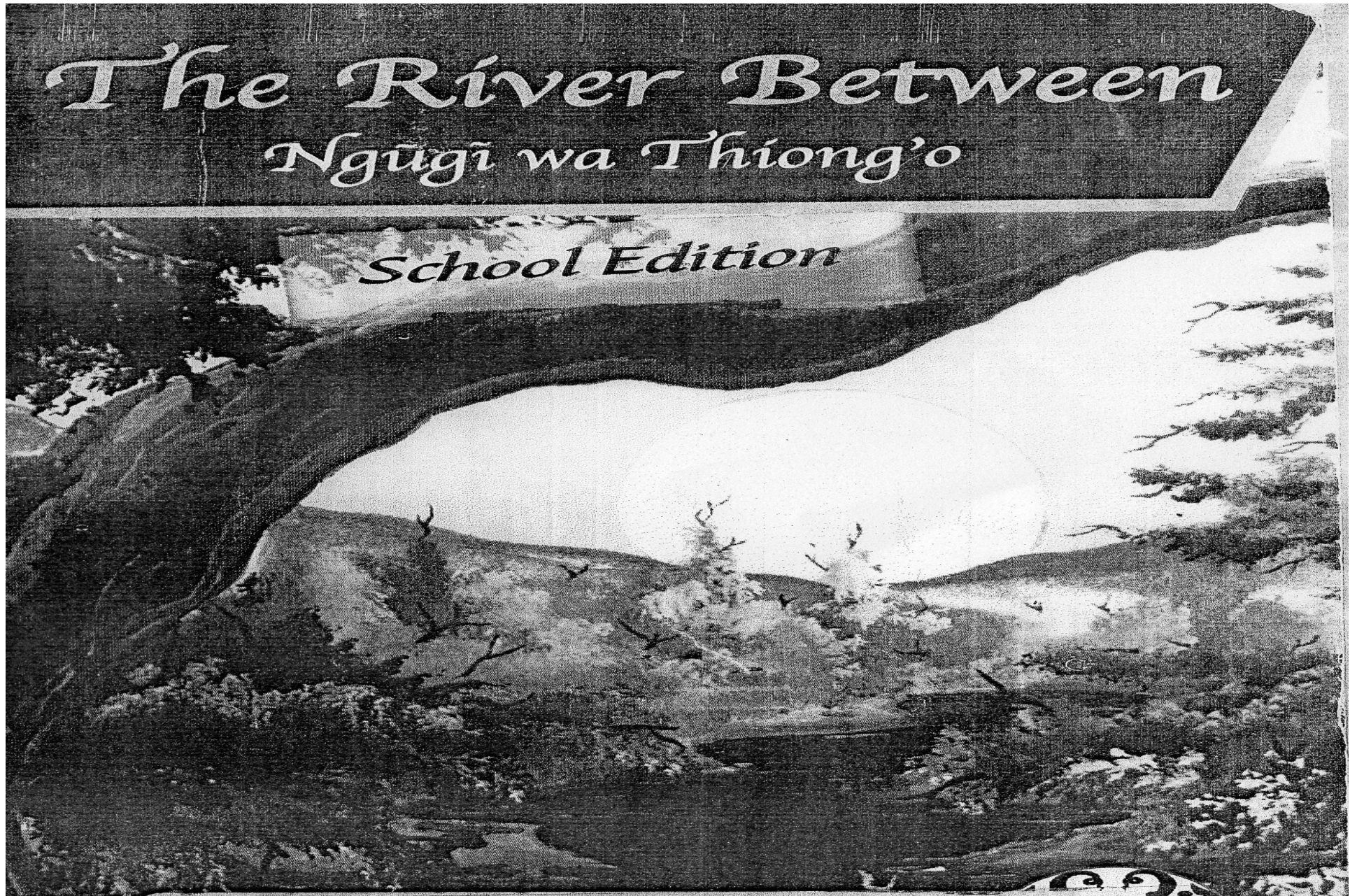
# Introduction



# Introduction

- Likewise Ngugi Wa Thiongo's book 'The River Between' the cover shows the picture or photograph of the river flowing between two hills, Kameno and Makuyu.....therefore, the careful teacher of literature will use picture or photographs for learners to comprehend the meaning and purpose of work as a whole in the content taught in the text book of literature.

# Introduction contd.



## introduction contd

- In English language, before 8.4.4 system of education in Kenya, teachers in primary and secondary schools emphasized use of photographs or pictures in composition or essay writing.
- In certificate for primary education [C.P.E], East African National Examination Council used to set picture/photograph composition.
- This made learners to be creative by interpreting the picture and application to the contemporary society.

## introduction contd

- It also ensured that candidates could not be able to cheat in examination because of varied interpretation by different learners from different ethnic and cultural background since they applied their real world [region] they came from.
- History is another subject where photographs and pictures are very much significant to the learner.
- The picture or photographs in history make the meaning of concepts clear and accurate account of some aspects of a nation's progress, for example the method of shadoof was used in irrigation in early civilization in Egypt, as illustrated in the

## introduction contd

- It also ensured that candidates could not be able to cheat in examination because of varied interpretation by different learners from different ethnic and cultural background since they applied their real world [region] they came from.
- History is another subject where photographs and pictures are very much significant to the learner.
- The pictures in history make the meaning of concepts clear and accurate account of some aspects of a nation's progress, e.g. the method of shadoof was used in irrigation in early civilization in Egypt, as illustrated in the following picture...

# introduction contd.



27.5 *Top-soil firing, Futa Jallon; Pita, Timbi-Madina (R. Portères)*

27.6 *Cultivation of land, Kadyendo, by the Dyula of Oussouye (Casamance) in preparation for the re-planting of the rice beds (R. Portères)*

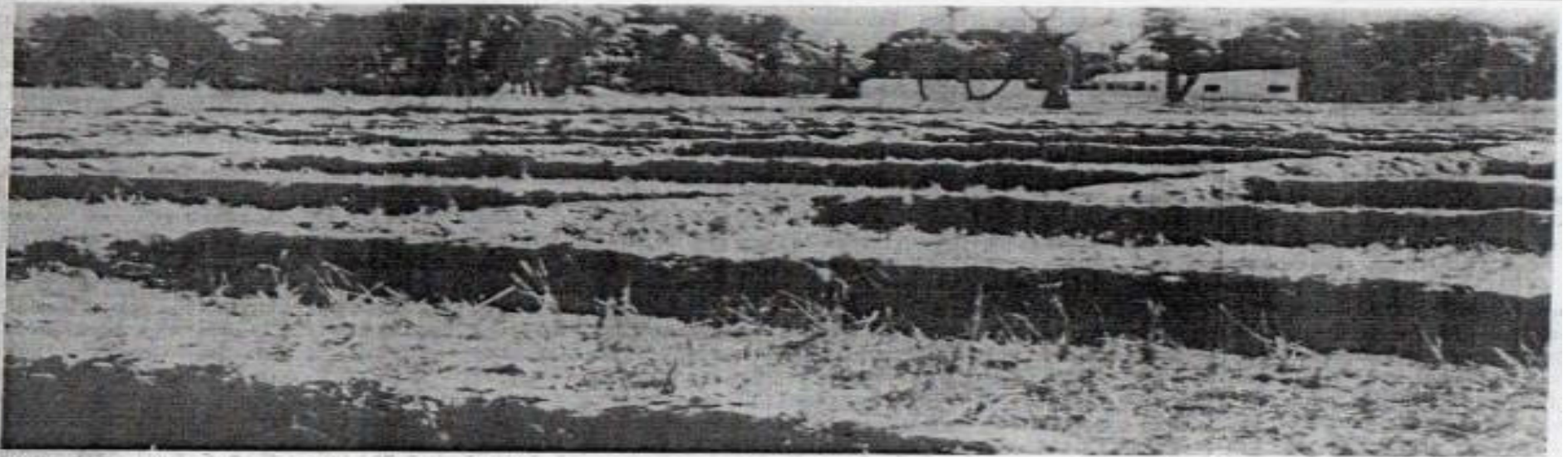




# introduction contd

*Agricultural techniques*

34



**27.7 and 27.8** *Two methods of rice cultivation (R. Portères)*



## introduction contd

- According to Raymont[1983], “music ranks with literature as one those subjects which prepare all alike for rational ways of employing their leisure”.
- As in other subjects, a student to receive an elaborate training should get a good foundation for musical knowledge, taste, and skill as may be built upon according to measure of the student’s powers and opportunities.

## introduction contd

- According to Abwao and Nyachieo [1995], in the African traditional folk music, use music instruments classified according to their main source of sound production, internal and external basic shape, the function of instrument within the society that uses it and, the tuning, the holding and method of playing them.
- The pictures of these instruments and its demonstration and illustrative nature, makes the learner active in classroom.

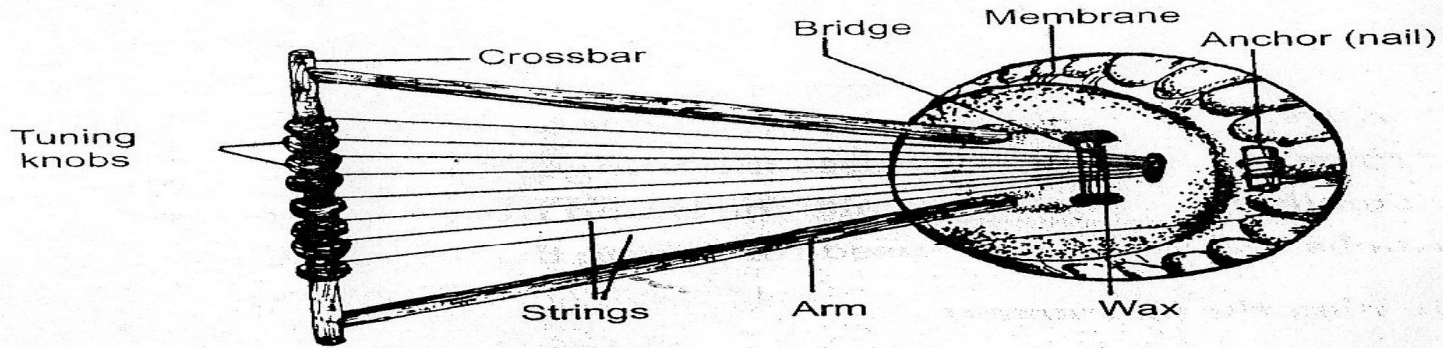
# introduction contd

- The African musical instruments are classified in four main classes:  
[1] Chordophones [string instruments]-chord literally means string and phone is sound.
- This instruments produce sound through vibration of stretched strings either by striking, plucking with fingers, bowing or strumming-this include fiddles, musical bows, harps and lyres as shown in the illustrative pictures.

# introduction contd

## *Obokano*

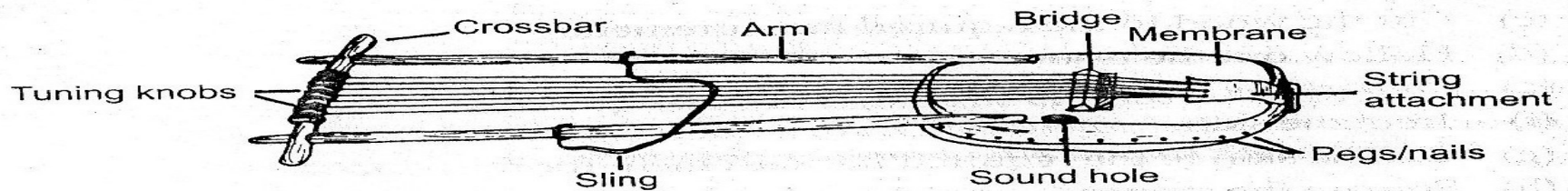
It also has eight strings and is the biggest lyre found in Kenya. The arms are very long and spread out. The crossbar is not curved but straight. It is found among the Kisii of Nyanza Province.



*Obokano*

When playing the *obokano* the player can either sit on a low stool or play when standing. *Chinchigiri* gives it a rhythmic support.

## *Litungu*



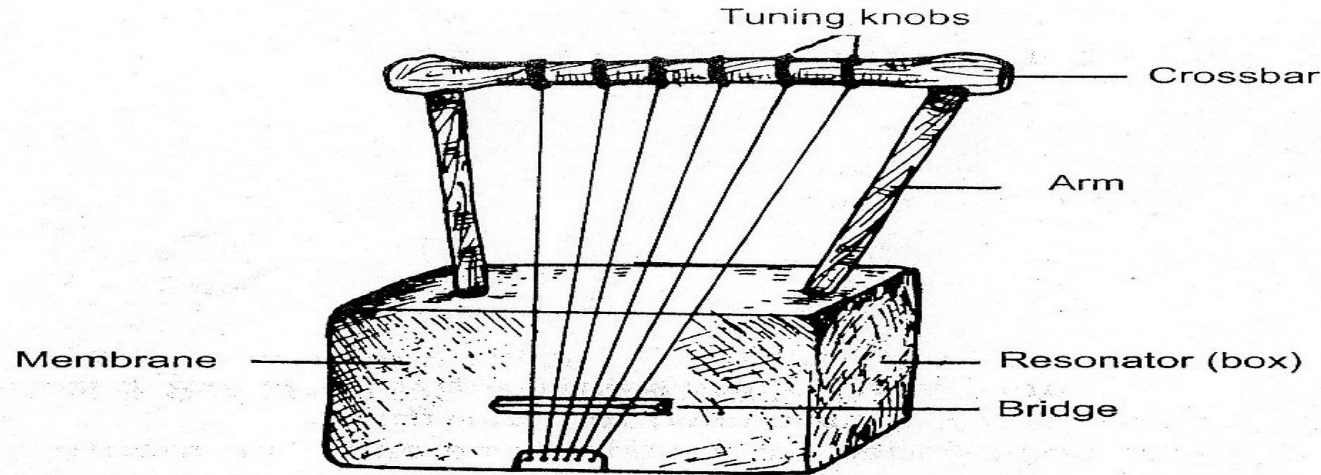
*Litungu*

It has seven strings and an oval shaped resonator. Its arms are long and almost parallel to each other with a short crossbar. It is found among the Bukusu, Tachoni and Kabras of Bungoma and Kakamega Districts.

When playing the instrument the player may stand or sit on a low stool. If seated, the resonator rests on his laps with the strings facing him.

# introduction contd

## *Chemonge/ chepkongo*



*Chemonge*

This instrument is mainly found among the Kalenjin. Its resonator is made of a wooden box and is rectangular in shape. The instrument has six strings each with its traditional name starting from the lowest in pitch as follows:

- 6 – *Boiyot*: old man
- 5 – *Nerube boiyot*: following *boiyot*
- 4 – *Namba ang'uan*: number four
- 3 – *Namba somok*: number three
- 2 – *Nerube kiptililiet*: following *kiptililiet*
- 1 – *Kiptililiet*: (from the sound it makes)

Other types of lyres are:

<i>Iritungu</i>	(Kuria)	—	8 strings
<i>Obukhana</i>	(Marachi)	—	8 strings
<i>Ketuba</i>	(Nandi)	—	8 strings
<i>Mukandit</i>	(West Pokot)	—	5 strings
<i>Pukan</i>	(Pokot)	—	5 strings
<i>Chepkesem</i>	(Kalenjin)	—	5 strings

## introduction contd.

[2] Aerophones[wind instruments]:-

- sound is produced by vibration of air in the air column through blowing, such as flutes, reed pipes, horns, double reed instruments and whistles as illustrated in the following pictures.

# introduction contd.

## Aerophones

These are wind instruments. Sound is produced by vibration of air in the air column through blowing. There are five groups of aerophones:

- (a) Flutes
- (b) Reed pipes
- (c) Horns
- (d) Double reed instruments
- (e) Whistles

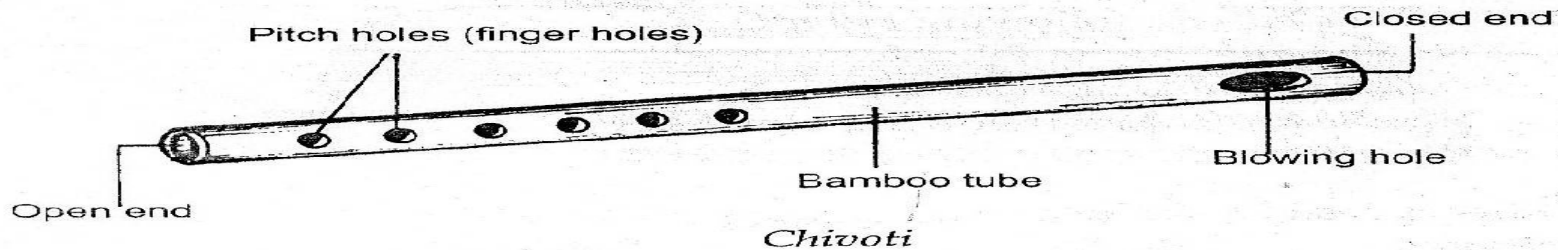
## Flutes

They are made from plants with hollow stems or branches (e.g. bamboos). Today, hollow metals or plastic tubings are used to make flutes.

Flutes are either open ended or closed at one end. The mouth can either be notched or round. The number of finger holes vary depending on the type of the instrument and the ethnic group that uses it. It can be transversely blown like the *chivoti* or end blown like the *mulele*. Below are examples of flutes found in Kenya:

### *Chivoti (Mijikenda - Coast)*

It is a transverse flute closed on one end and open on the other. It has an oval shaped blowing hole and six finger holes (pitch holes).



### Functions of the labelled parts

- |                     |  |
|---------------------|--|
| <i>Blowing hole</i> | — the hole through which air is blown into the instrument causing the production of the sound. |
| <i>Pitch holes</i>  | — for pitch variation when playing a melody.   |
| <i>Closed end</i>   | — directs sound towards the open end.  |
| <i>Bamboo reed</i>  | — main framework of the instrument which also serves as a resonator.                           |



# introduction contd.

## *Playing skills*

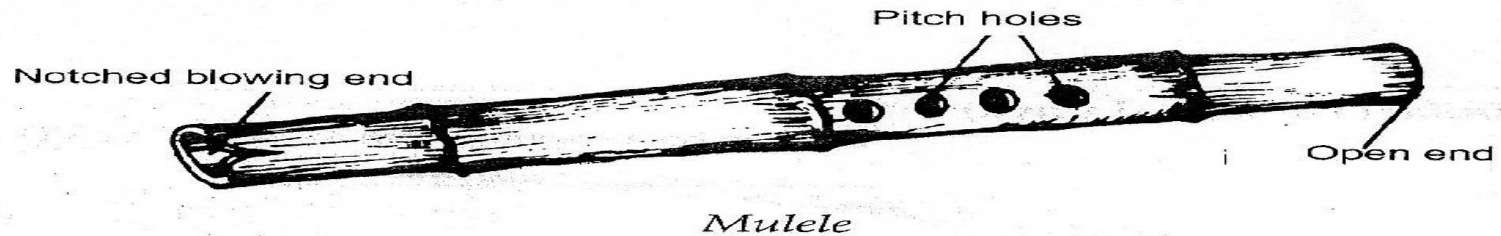
- (a) Holding — held transversely.
- (b) Positioning of the lips — lower lip placed on the lower part of the blowing hole.
- (c) Blowing — air blown across the blowing hole.
- (d) Fingering — closing and opening of the finger holes alternately.
- (e) Breath control/phrasing — breath taken at appropriate places.
- (f) Tonguing — use of the tongue to put accent on notes.

## *Tuning*

The general tuning of the *chivoti* is d: r: m: s: 1: t: but this may differ from player to player and from community to community.

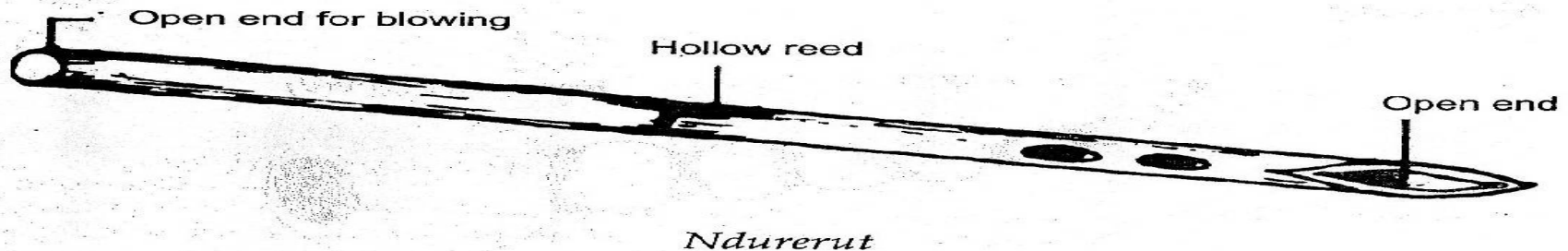
## *Mulele*

Mulele is open at both ends. The mouth hole is V-shaped and when playing, the lower lip covers most of the open end except the V-shaped part. The player blows against this V-shape.



## *Ndurerut*

*Ndurerut* is open at both ends. The blowing hole is one of the round open ends that is far from the finger holes. It is held diagonally when playing.



## introduction contd.

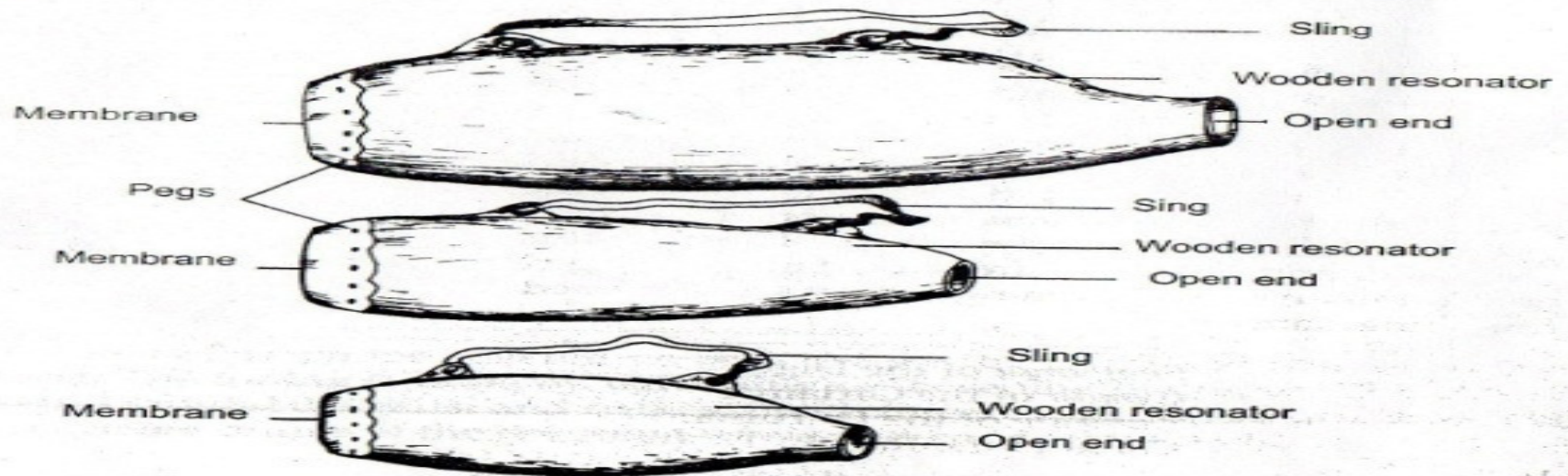
[3]. Membranophones [percussions]:-

- which produce sound by causing stretched skin or other forms of membranes or a shell to vibrate, for example drums as illustrated in the following pictures.

# introduction contd.

## *Isukuti drum*

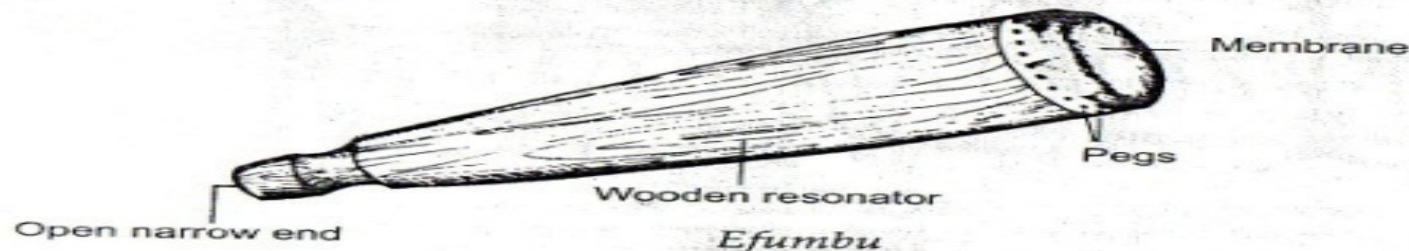
It is a cylindrical bottle-shaped hollow membranophone used by the Luhya of Western Province. It is covered on one side with a monitor lizard skin and open toward the narrow opposite end. It is played by striking or hitting the skin with the palm of the hand and varying the pitches with tips of fingers. Hitting the centre of the drum produces low sound, slightly away from centre gives higher sound and playing near the brim of the drum gives high sound. It is hang on the shoulder when playing. The *isukuti* drums are available in a set of three i.e. *sukuti isatsa* (the biggest), *sukuti ikhasi* (middle), *sukuti mwana* (smallest). The middle one is also known as *nutiti*. A round metal ring (*ekengele*) gives the percussive support.



*Isukuti drums*

## *Efumbu*

A Bukusu drum resembling *mshondo* of the Giriama. It is open on one side and played on the other side that is covered with a skin.

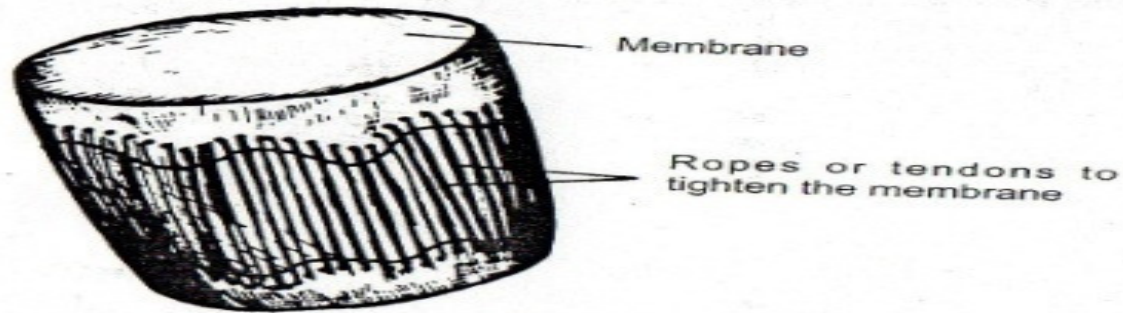


*Efumbu*

# introduction contd.

## Atenuns

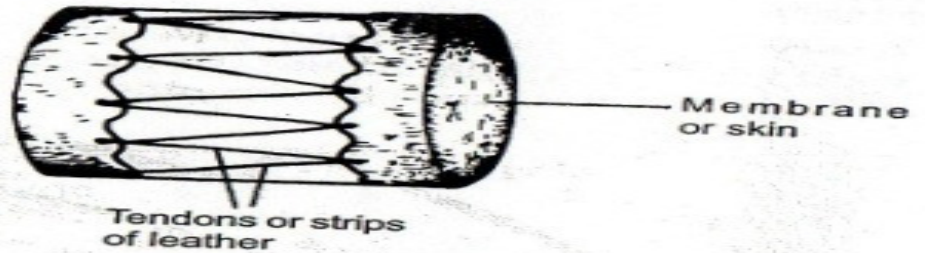
It is a Teso drum covered on both sides. The round *atenusu* is played by two people — one playing the top and another the bottom using hands and a stick. The other *atenusu* may be cylindrical or rectangular. The rectangular one uses a *debe* as a resonator.



Atenunsu

## Endonyi

A double ended Bukusu drum played in the company of *efumbu*.

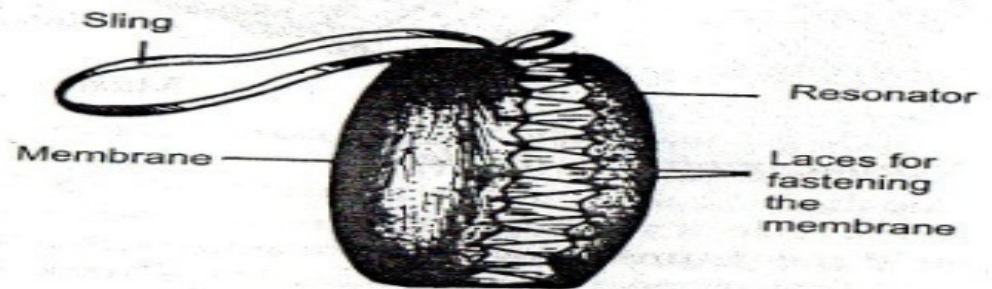


Endonyi

## Bul

A Luo drum with skin spread over both ends and tightened by ropes, tendons or strips of leather. The drum is played on both sides. It is hit with a stick. It is played in an ensemble of *puga* (gourd), *oporo* (horn) or *asili* (flute). It accompanies *bul* dance (a famous Luo dance for entertainment). There are three types of *bul*:

- (a) *Bul maduong'* - the big drum.
- (b) *Bul madiere* - the middle drum.
- (c) *Bul matin* - the small drum.



Bul

## Introduction contd.

[4]. Idiophones [percussions]:-

- whose vibration is linked to the nature of the material being used to produce sound.
- They are referred as self sounding instrument as illustrated in the following pictures.

# Introduction contd.

Idiophones can be put into two categories:

- (a) Melodic idiophones e.g. *marimba* (Mijikenda)
- (b) Rhythmic idiophones

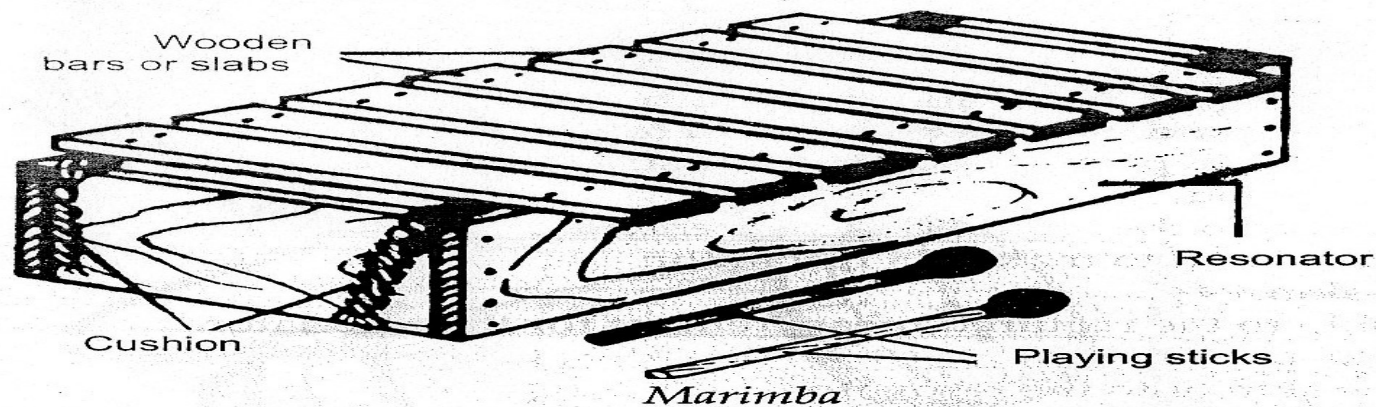
## *Melodic idiophones*

These are percussions that are tuned with keys and which produce sound when plucked or struck. Most common ones are xylophones e.g. *marimba*, played by striking and lamellaphones e.g. *adongo* (Teso) played by plucking.

### *Marimba*

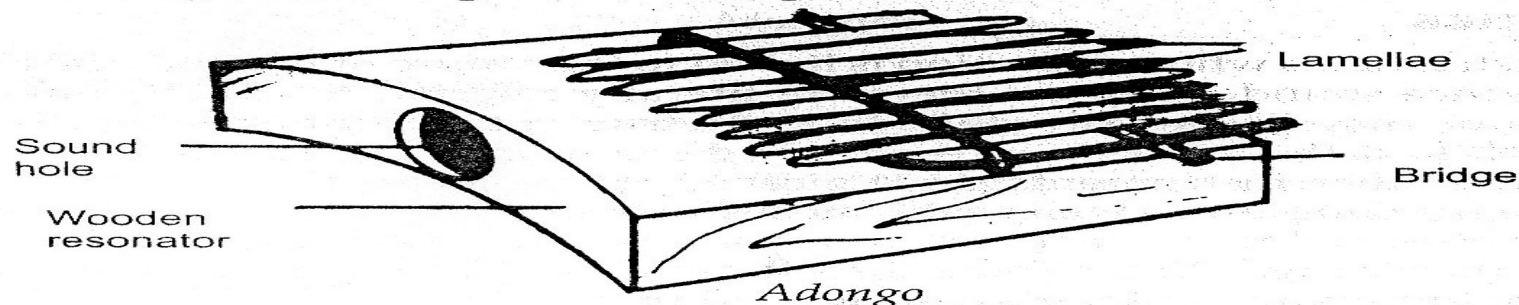
It is a traditional xylophone with a definite pitches. It is made of seven wooden slabs and the player uses two rubber-tipped drum sticks for hitting the wooden bars for sound production. Tuning is d : r : m : s : 1 : t.

The Ugandan xylophone is called *amadinda*.



### *Adongo (Teso)*

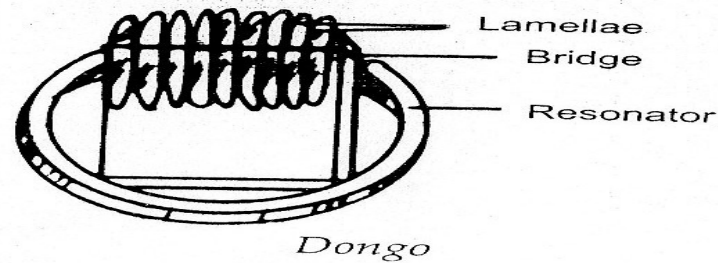
The instrument has lamellae (wires) from a bicycle or umbrella spokes fixed on a wooden box resonator and are plucked to produce sound. The lamellae are of different lengths which give different pitches.



# Introduction contd.

## *Dongo (Mijikenda)*

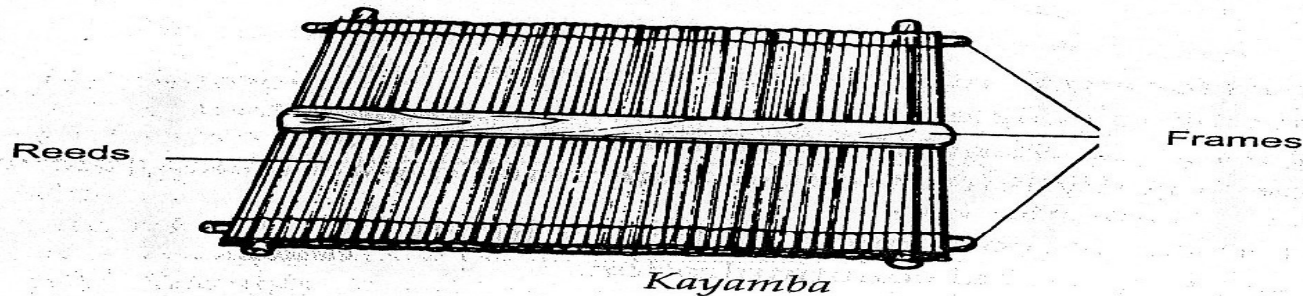
The instrument has lamellae like the *adongo* of Iteso except that it has a bigger and round plastic resonator.



## *Rhythmic idiophones*

### *Kayamba (Mijikenda)*

It is a tray shaped instrument composed of reeds sown together to form two layers. The space between the two layers contain seeds which produce rattling sound when the instrument is shaken from side to side.



Other examples of rhythmic idiophones are as follows:

### (a) Tin rattles and gourds

<i>Puga</i> (gourd)	—	Luo
<i>Ajawa</i>	—	Luo
<i>Kayekekepo</i>	—	Teso
<i>Kisasi/chisasi</i>	—	Luhya
<i>Ndonga</i>	—	Digo
<i>Ibirandi</i> (gourd)	—	Kuria
<i>Gicandi</i> (gourd)	—	Kikuyu
<i>Enyengo</i>	—	Samia
<i>Erisege</i>	—	Kuria

## Introduction contd.

- Home science is another subject where pictures and photographs are important for teaching.
- The pictures demonstrate functions or uses of the apparatus/equipments used in home science.
- For examples the pictures of different laundry equipment, make learners have a practical approach and applies the skills in daily in the real world.
- Pictures of laundry equipments are illustrated in the pictures of plastic bucket, plastic basin, and galvanized iron bucket and so on.



## Introduction contd.

- Geography subject is the core of this research study where pictures and photographs are used for demonstrate what the student are taught in classroom with the real world.
- In geography, pictures and photographs play an important role as substitutes for reality.
- Many scholars of geography have defined geography as a science or an art which focuses on developing an understanding of space occupied by people in nature.

## Introduction contd.

- In geographical education, is a body of knowledge to develop both the theory and the method, which in addition to promoting within the individual learner the ability to informational data to think about people in environmental relationships and also facilitating efficiency in handling and manipulating environmental space with photographs and pictures of the landforms on the earth. Therefore, learners of geography develop a sense of geographic literacy and an ability to reason spatially in relation to pictures and photographs used by teachers in demonstration and illustration.

# Introduction contd.

PHOTOMICROGRAPH OF A QUARTZ CRYSTAL



FIGURE 1.10 Quartz crystal



FIGURE 1.11 Feldspar crystal

## Introduction contd.

- In this study geography students are urged to move a milestone or beyond the scope of memorization of facts towards acquiring competencies in geographical concepts through reasoning from pictures and photographs.

# The statement of the problem

- In the current research study, the survey method was used in Lodwar and shows that nowadays teachers in all levels of education do not use pictures and photographs in interpreting and application in teaching concepts to the contemporary society.
- There is low enrolment in the learners taking geography as their optional subject as compared to others referred to as booster “subjects. “Booster subjects are those chosen to assist a learner score high grades in relation with the compulsory subjects, in the Kenyan education sector.

# The objective of the research

- To study the significance of the use of pictures/ photographs in teaching and learning geography and other subjects.
- “Gone are the days when the teachers were making the lesson enjoyable to learners using a practical approach”?

# Methodology

- The research used the survey method in all secondary schools in Lodwar town which served as a sample study of the whole population. It was used to describe the nature of existing conditions.
- Small scale survey was conducted on six schools in Lodwar Town orally through interview technique in convenience/purposive sampling in the students of geography.

## **Use pictures in teaching geography & other subjects**

- [I] Make learning of geography real and help students think critically or imagine geographical features or problems in relation to real world.
- [ii] Pictures or photographs study, analysis and interpretation are necessary aid to acquisition of skills required for map reading, analysis and interpretation.
- [iii] Pictures or photographs are used to illustrate items which are unfamiliar and about which students need to know.
- [iv] Photographs and pictures illustrate the concrete use of observation technique.



## **Use pictures in teaching geography & other subjects**

- [v] Pictures/photographs help the teacher in getting the attention of his learners in the classroom.
- [vi] The pictures/photographs help in creating the interest of the learner in the topic and activate the mental process of the learners.
- [vii] The use of photographs/pictures helps learners to have clear conception and conceptualize ideas, information, facts and principles in what is taught.
- [viii] Pictures/photographs help learners in understanding some complicated and difficult concepts, in all levels in education sector.

## **Use pictures in teaching geography & other subjects**

- [ix] The learners get an opportunity to get first hand experiences by visualizing some concrete things, living specimens and actual demonstrations etc.
- [x] pictures/photographs provide an opportunity for a better support between the teachers and learners.
- [xi] Pictures/photographs provide training in scientific methods.
- [xi] Use of pictures and photographs is based on the principles of psychology which encourages interdisciplinary approach leading to interrelationships of subjects.

## **Use pictures in teaching geography & other subjects**

- [xii] Pictures/photographs help learners to develop scientific attitude in science subjects taught in primary and secondary schools in education sector.
- [xiii] Photographs/pictures helps learners in sketching diagrams in learning processes in education sector.
- [xiv] in observation technique, there is photo-reading: which is basically the ability to recognize manmade/natural features as they are depicted on pictures
- [xv] Photo analysis: is also an important aspect-which involves all aspects of photo reading as well as the evaluation of the size, position and use of the features or landforms recognized and examined;

## **Use pictures in teaching geography & other subjects**

[xvi] Photo-interpretation: involves all aspects of photo-reading analysis, use of stereoscopic vision, careful examination of all elements of the photograph patterns.

## Use pictures in teaching geography & other subjects

- In the real sense attaining of objectives of geography instruction in specific area, there are skills in geography we must emphasize as follows;
  - [i] Skills of observation.
  - [ii] Skills in synthesizing.
  - [iii] Skills in interpretation.
  - [iv] Skills in recording.
  - [v] Skills in reporting the findings.

## Use pictures in teaching geography & other subjects

- This skills in any level of education are normally taught through;
  1. creative efforts of the teacher and learner, sympathetic attention and encouragement in the classroom;
  2. by modeling-which refers to the teaching by demonstrating using certain facts and objects
  3. promoting-where students are able to exhibit the desired clues ,passion or partial answers;
  4. provision of practice, review and generalization of geographical concepts to drawn conclusion on relevant facts of the phenomenon under studv.

## **Use pictures in teaching geography & other subjects**

- The specific skills as mentioned can be demonstrated and illustrated by scientific method in the following;

[I ].Use of pictures and photographs.

[ii] Through use of statistical techniques.

[iii] Use of map work and map reading.

[iv ] Use of field work as teaching and learning technique.

## Use pictures in teaching geography & other subjects

- In this sense therefore a technique in research means the actual procedure of collecting and ordering the data for example, observation, questionnaire, interview or schedule.
- A scientific method is a systematic study of a limited and definite subject matter for example; survey, deduction, induction, historical, structural, descriptive and functional.



## Use pictures in teaching geography & other subjects

- In the ancient and reliable definition “geography is the study of man and his environment” which is the real world.
- Ideally since it is a study of the real world, it should always be studied in the real world to give relevance of what is learnt in class to be practical, and students should therefore visit all the places they learn about.

## Use pictures in teaching geography & other subjects

- But due to the fact that the a school and individual students can't be able to get money for Geography by its nature cannot be learnt by words alone, but requires sight because learning learners need to see the features or phenomenon they learnt in class and the verbal explanation as to why such features occurred, that's why, geography deals with reality and cannot be taught effectively without visual aids, such as photographs and pictures, because it deals with concrete not abstract.

## Use pictures in teaching geography & other subjects

- “geography is one of the subjects in school curriculum which cannot be taught adequately without the use of the illustrative materials or visual aids..., in fact it can be said that a geography lesson taught without the use of a map is not geography of lesson at all”.
- Likewise in the current research, it is concluded that ‘a geography lesson taught without the use of pictures and photographs is not a geography lesson at all, and not enjoyable and stimulating to students’.

## Use pictures in teaching geography & other subjects

- Photographs or pictures are indispensable tools to the geography teachers and learners as well, because they play a vital role as substitutes for reality.
- Therefore, the geographer's laboratory is the field.
- This is simply because much of the subject matter taught in geography is in connection with areas far removed from the teachers and learner's direct experiences in the past, to reflect the present and give the relevance of future realities in practical geography.

## Conclusion of the research study

- It is concluded that geography education uses pictures and photographs thus there are methods of teaching using geographical pictures and photographs which are followed by geography teachers, fall into three categories according to methods of viewing them. These include the following:
  - [1] Pictures viewed by individual method-the picture or photographs are found in the learner's class textbooks, but where the class texts are shared between two or more learners, pictures can be viewed in pairs or desk groups. For example.....

# Conclusion of the research study



## Conclusion of the research study

[ii]. Pictures viewed by groups method-these may consist of small copies of photographs illustrating the same features or different ones, but are not sufficient in numbers for learners to view individually. This entails the class to be divided into manageable groups to study the photographs or pictures. For example the illustrative picture of cultivated forest.

# Conclusion of the research study

Ian H. Strahler)





## Conclusion of the research study

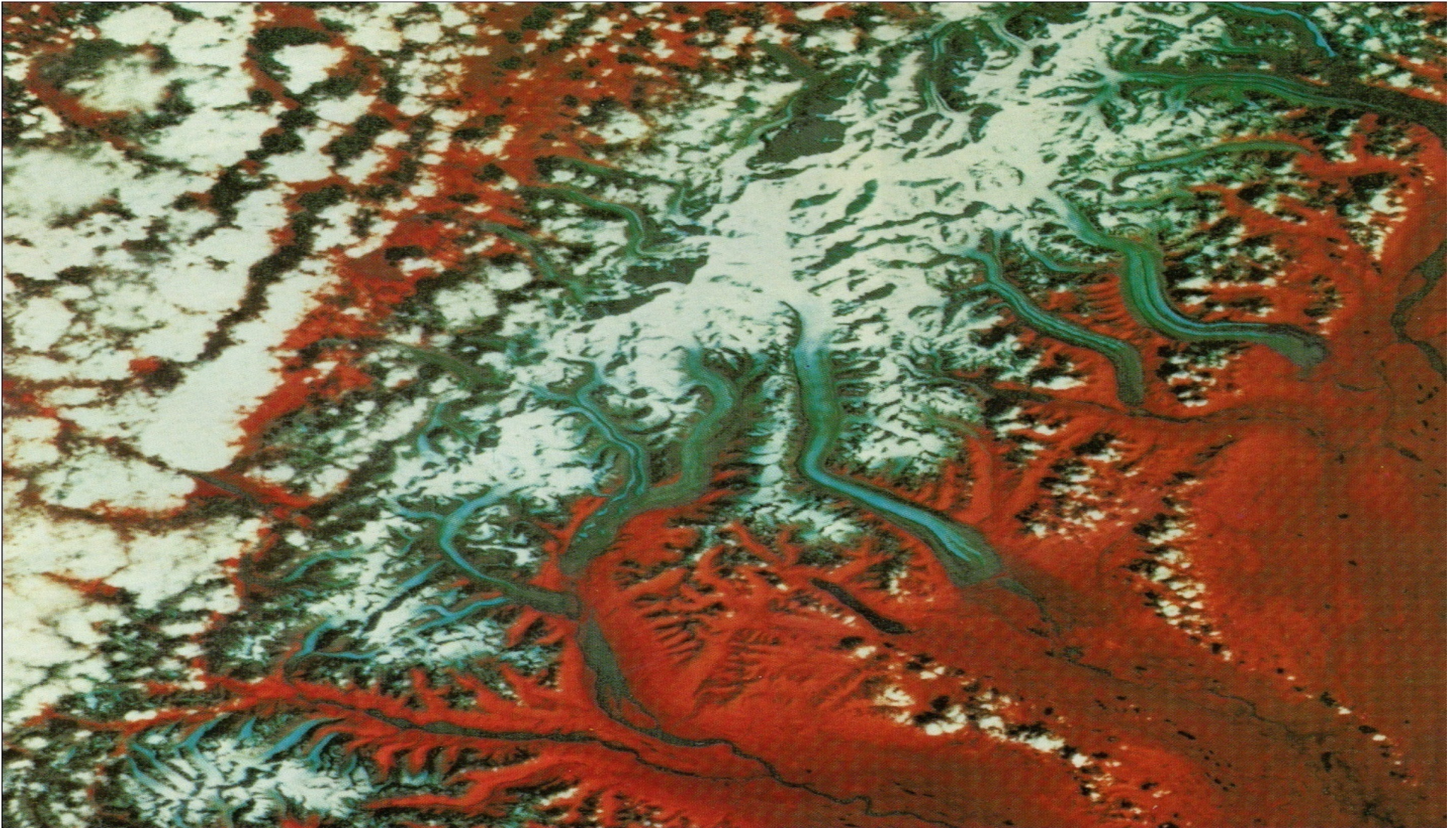
[iii] Pictures viewed by the whole class method-these are generally large pictures, projected or collected from commercial firms[industries].Therefore, a list of a set of questions relating to the photograph/picture should be followed. The teacher would ask the questions to which the learner gives the answers after carefully studying the photograph, for example the illustrative picture of river meanders.

# Conclusion of the research study



**RIVER MEANDERING (MIGHTY JHELUM NEAR BARAMULLAH)**

# Conclusion of the research study



Photographed by ERTS-1 orbiting satellite from a height of about 570 mi (920 km) glaciers of the Alaska Range in south central Alaska appear as blue curving bands, emerging from high collecting grounds on a snow-covered mountain axis trending from northeast to southwest across the center of the photo. The white patches at the left and right are clouds. Darker lines running down the length of a glacier are medial moraines, formed of rock debris on the ice surface. Where these moraines have been distorted into a sinuous pattern, the glacier has experienced a rapid downvalley surge at rates up to 4 ft (1.2 m) per hour. Those glaciers with smooth moraines, paralleling the banks, are experiencing very slow, uniform flow throughout their entire length. The group of high mountain peaks in the upper, central part of the area includes Mt. McKinley, highest point in North America. This is a false-

# Conclusion of the research study



**RIVER MEANDERING**

# Conclusion of the research study

- The research further found and concludes that there are difficulties or challenges or problems associated with the use of pictures as follows;

[i] Pictures cannot convey the real image of the actual feature; therefore pictures and photographs portray incomplete information;

[ii] No picture would convey sensations of smell, heat or cold. These sensational feelings must be added in the imagination of students by appropriately designed questions for example is that place cold or hot? A challenge in how can you tell this in a picture?

## Conclusion of the research study

- [iii] No single geographical feature physical/human plant/animal remains the same throughout time, hence picture information must be supplemented by written accounts & compared with pictures of similar places of various types taken at different times, so that a clear & accurate interpretation is given for appropriate application in the world.
- [iv] Black and white photograph /pictures do not show the real colours of the objects or scenery and as a result obstruct a lot of details and give inadequate interpretation of photograph/picture and poor or vague conclusion.

## Conclusion of the research study

- [v]. No clarity on photographs/pictures especially aerial taken far away from the camera which perhaps leads to wrong interpretation of the features of the photograph.
- [vi]. Generally pictures have no scale and because of several features and different perspectives, it is difficult to give distances accurately. Therefore, heights and distances are estimated.
- [vii]. Pictures taken with unfocused camera especially aerial photographs would be blurred & become difficult for learners to distinguish features that look alike e.g. barley & wheat & sugar cane & N/grass.

# Conclusion of the research study

- According to Ogonda (1991), photographic interpretation is defined as the careful examination of all the elements of ground level, oblique and vertical aerial photograph patterns and deductive and inductive evaluation of the elements as they are observed in the field.
- In this sense therefore, the learner will also learn from the photograph or picture what is a vertical aerial photograph and oblique photograph. Vertical aerial photograph refers to those taken from the air with the centre with the camera axis directed vertically as possible.



# Conclusion of the research study

- While oblique aerial photographs refers to those taken with an international inclination of the camera optical axis. There are high oblique photographs including the image of the horizon and low oblique do not (Pritchard, 1984).
- It is concluded that there are procedures to be adopted and followed when studying, analyzing and interpreting pictures or photographs by question and answer method as follows;

# Conclusion of the research study

- **Stage/procedure 1;**
- introduce the lesson by stating precisely the subject and the location of the picture and clarify any obscurities that may render them in comprehensible.
- Subject of the pictures refers or means its caption or its title and location of a picture means where the photograph was taken from for example 'this is a photograph of mount Kenya on the floor of Karatina area in Kenya.

# Conclusion of the research study

- **Stage/procedure 2;** student's attention to most significant features in the photograph and which are of geographical relevance and importance. Tell the learners to name or make a list of important features, orally or in written forms.
- **Stage/procedure 3;** ask the learners to describe and explain the distribution of the observed features either in writing or orally.
- In this sense, when a written description is adopted, it can be illustrated by simplifying the pictures by use of line diagrams or sketches.

# Conclusion of the research study

- This is convenient or simplified way of analyzing and recording pattern of distribution of the phenomena as it appears in the picture. Teacher should guide learners on how to draw sketches at first.
- **Stage/procedure 4;** learners should learn the proper terminology used in describing the picture or photograph, the ground is important.
- A ground in this sense refers to the part viewed by the learner.
- There are three grounds as background, foreground and middle/centre ground.

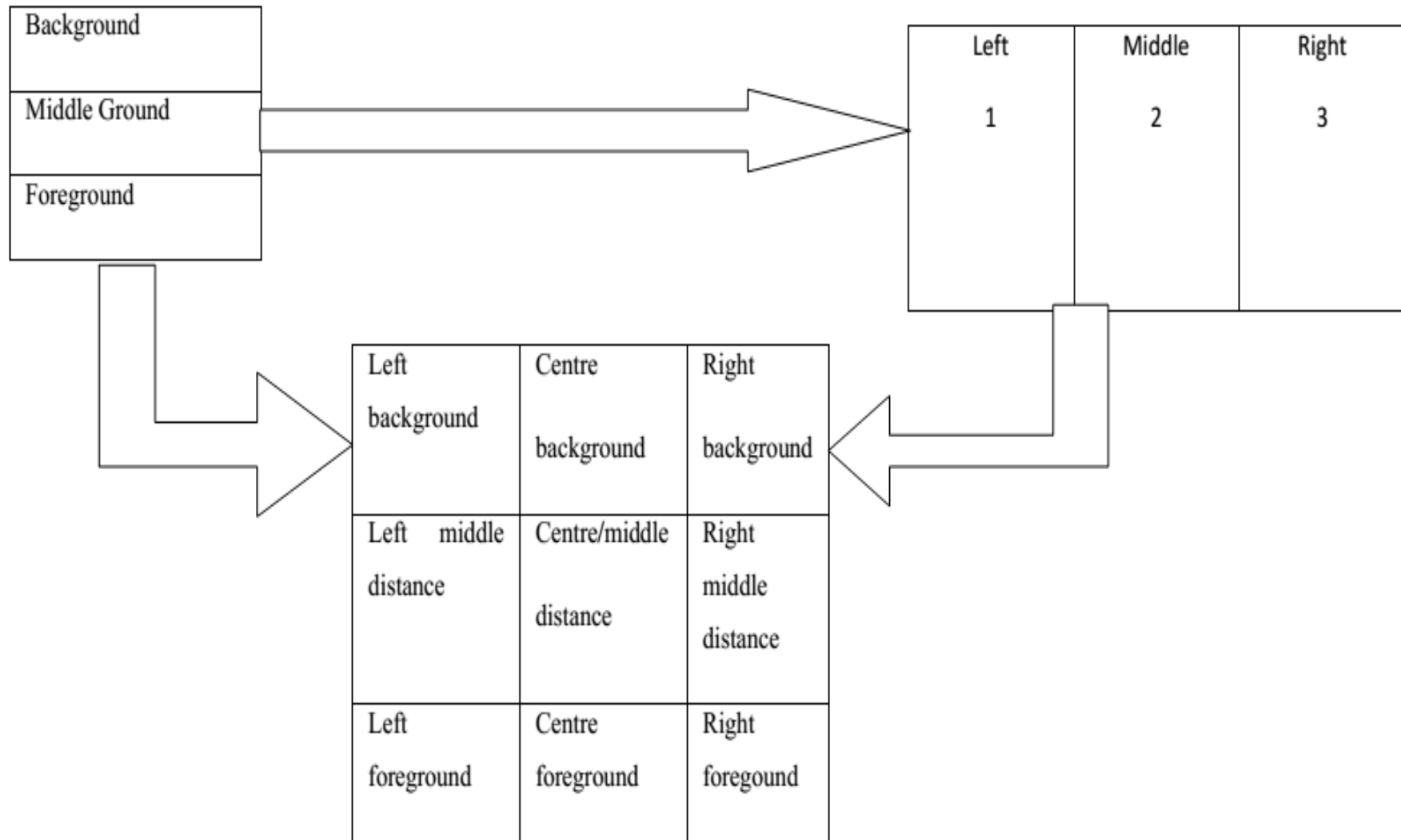
# Conclusion of the research study

- Further the grounds are divided into three parts as follows; left, middle/centre and right.
- Therefore form the left background, middle/centre/ background and right background in first level; left middle distance, centre/distance and right middle distance in the second level, and left foreground, centre foreground and right foreground.

# Conclusion of the research study

Level 1: Grounds of a photograph

Level 2: vertical areas/platforms of a photograph



Level 3: Nine parts of a photograph interpretation

## Conclusion of the research study

- **Stage/procedure 5;** involve the learners looking for the relationships between the various features shown on the photograph/picture.
- In this part, the interpretation of the relationship should be made with caution, by taking into consideration that inferences should only be made on the basis of evidence provided in the picture.
- Some conclusions and inferences can however be made on the basis of the learners' past experiences, which might have been gained by studying/researching similar features in different geographical setting or learning.

# Conclusion of the research study

- **Stage /procedure 6;** the learners are taken into the realms of comparison and contrast. Learners should be involved in looking or searching for similarities and differences between what they see in a picture and what they see in a picture and what they have seen in the field [real world] or read in the textbooks.
- **Stage/procedure 7;**lastly,learners should be asked to go and verify the information from other pictures or photographs and reference works or they should be asked to go and observe the information on their own in other areas or regions.



## Conclusion of the research study

- With these kinds of procedure and stages followed, the learners can be stimulated, motivated to learn geography with enthusiasm, hence, above procedures are suitable for both non-projected pictures as well as to the projected ones. Non-projected pictures are shown by hand while projected is those shown by use of the projector.
- Secondly the pictures studied between the lesson should give background information of the lesson to be learned for example, introduction.

## Conclusion of the research study

- Thirdly, pictures presented during the lesson should illustrate certain geographical concepts which might be difficult for the learners to understand by verbal explanation alone. Fourthly, picture presented at the end of the lesson should act as a revision device of the lesson.

# Recommendations

- [i]. It is recommended that ALL subjects should regulate pictures in teaching learners in ALL levels of education; nursery, primary, secondary schools, high schools, colleges polytechnics and universities.
- [ii]. Photographs are very useful in teaching and learning geography and other subjects as they show actual objects as they appear, leading to problem based learning in education.
- [iii]. Use or to regulate pictures to introduce unknown or unfamiliar features and landscapes of distant lands or regions can be 'brought' to the classroom through photographs.

# Recommendations

- [iv]. Pictures/photographs which show the behaviors or characteristics and effects of land forming processes like rocks are useful in helping learners to comprehend or understand the processes, the landforms which are described in the classroom can clearly seen in such photographs.
- [v]. All subjects regulating pictures or photographs in teaching or learning should always use PHOTOGRAPH DESCRIPTION MODEL, illustrated above, for accurate and appropriate interpretation and application of the features in the photographs in relation the actual objects understudy.

# Recommendations

- [vi] Teachers of regional geography should apply photographs or pictures because aerial photographs provide vital information in land use, thereby summarizing geography of the area or the region.
- [vii] Photographs showing human activities and vegetation, the climate of an area can be deduced.
- [viii] One of the fundamental facts, which every educator should know, is that progress in teaching and learning can be achieved by, guided philosophy of education. According to Best [1978], “research is one method by which one finds the solution to educational problems”.

# Recommendations

- [ix] The main aim of teaching is to help a learner to respond to his environmental in effective way. This research paper has given the framework to focus on life contexts in real world through pictures and photographs.
- [x] creativity in science should be causality in future. Hence, interest in science learning should be developed at school level itself adopting a variety of strategies/ methods/models. The conditions under which models function effectively needs to be understood in classroom/school contexts and in real life situations”.

# Recommendations

[xi] There are principles of using pictures and photographs. So Basha and Rao [2007], have provided the following principles to be kept in mind for successful use of pictures for teaching geography:

- (a) Keep an index and a file of pictures'
- (b) Large pictures be mounted on wooden frame of plywood and small mounted on butter muslin. It helps to minimize wear and tear of pictures.
- (c) Use some projecting machine when you want to display a small-size picture.

# Recommendations

- (d) The teacher should explain to the learners the things to be studied in a picture.
- (e) Students are allowed free access to the pictures.
- (f) After showing a picture, the teacher should ask questions which would help to strengthen the knowledge of students and sharpen their memory and enrich their imagination.
- (g) Pictures should be bold, direct and sufficiently large.
- (h) Picture should not be overloaded with information rather they should stick to maximum “one picture, one idea”.



# Recommendations

[xii] It is recommended that pictures used in geography and other subjects should have the following features:

- (a) Should be neat and accurate.
- (b) Should be attractive and natural.
- (c) Should have correct titles/headline and be up to date.
- (d) Endeavour is made to take a picture natural background.
- (e) Pictures should be designed have spaces for questions to filled by the teacher to the learners.

THANKS

FOR LISTENING