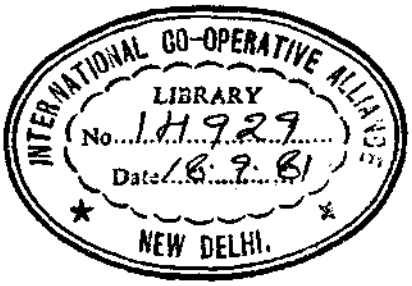
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Cooperative House, 455 Galle Road, Colombo-3

TRAINING AIDS

a handbook for cooperative teachers

daman prakash

-Teaching Aids Series-

TRAINING AIDS

-A Handbook for Cooperative Teachers-

Daman Prakash
Technical Advisor (A-V Aids)
TTP/Colombo

1980

PROJECT FOR TRAINING OF COOPERATIVE TEACHERS, SRI LANKA
(National Cooperative Council of Sri Lanka)
Cooperative House, 455 Galle Road, Colombo-3. Sri Lanka

-Teaching Aids Series-

TRAINING AIDS
- A Handbook
for
Cooperative
Teachers

Published by:

THE ICA-NCC-SCC
PROJECT FOR
TRAINING OF
COOPERATIVE
TEACHERS
IN
SRI LANKA

"Throughout the ages the problem has always been how to get communication out of Information."

- Peter Drucker

Additional copies of this publication can be obtained from:

The Project Director
Project for Training of Cooperative Teachers in Sri Lanka
(National Cooperative Council of Sri Lanka)
Cooperative House, 455 Galle Road, Colombo-3. Sri Lanka

Telegraphic address: NACOSIL, Colombo Phone: 89307-85496

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(200) December 1980.

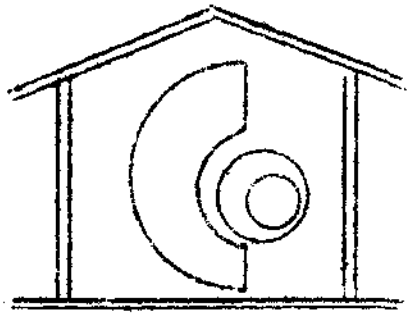
We send and receive messages in a variety of different ways and through a variety of different media. The purpose of this ability is to enable us to live together. Man is a social being. In the past he could get along quite happily by communicating largely within his small group and consequently the problems of communication were simplified. But, with the shrinking of distances, the growing complexity of society, the increasing specialisation of knowledge, the vital necessity for peaceful co-existence and the hope of universal cooperation, we need to consider and to study in careful detail the different ways in which we communicate and the different media we use.

- Colin Mares
in 'COMMUNICATION'

Characteristics of Leadership

There are five things which influence what a leader does. The first is how he get to be a leader. The second is what functions he is expected to perform by those who designated him as a leader. The third is the circumstances of the group. The fourth is the purpose of the group. The fifth is the kind of person he is and how he perceives himself and the job to be done.

- Ivor K Davies
in THE MANAGEMENT OF LEARNING.



C O N T E N T S

Each chapter has been supported by a number of illustrations and visuals.

TRAINING AIDS - A HANDBOOK FOR COOPERATIVE TEACHERS
yet another publication of the Cooperative Teachers Training Project, National Cooperative Council of Sri Lanka, 455 Galle Road, Cooperative House, Colombo-3

Telephone: 89307 and 85496 Telegram: NACOSIL/COLOMBO

Project for Training of Cooperative Teachers in Sri Lanka

(National Cooperative Council of Sri Lanka)
Cooperative House, 455 Galle Road, Colombo-3

FOREWORD

The Project for Training of Cooperative Teachers in Sri Lanka has been sponsored by the International Cooperative Alliance (ICA) and the Swedish Cooperative Centre (SCC) for the benefit of the National Cooperative Council of Sri Lanka (NCC). The main objective of the Project is to enhance the effectiveness of cooperative training activities being carried out or proposed to be carried out for personnel and members of managing committees of the Cooperative Movement in Sri Lanka by undertaking programmes in the field of training of cooperative teachers, production of training material and other related areas.

The Project has already organised several programmes for the teachers e.g., seminars on the Concepts of Learning, Facilitation of Learning, Human Communication; Cooperative Education Management; Use and Production of Basic Audio-Visual Aids; Production of Cooperative Training Material; Field Training (Experience) Programme and the follow-up activities. While the main emphasis of the Project activities is on Teaching Methodology, it has been also felt that the Cooperative Teachers should also have with them some suitable training material. The Project has, therefore, conducted several Material Production Workshops at which the teacher-participants were themselves involved in material production for they know the best about the training material that they need.

In order to enable the teachers to produce their own training material, the Project has also given them

training in the use and construction of some basic audio-visual aids. As a part of the cooperative training material production workshops, the teachers have been able to produce some very high quality visual aids e.g., posters, charts, graphs, flannel-graphs etc.

The present publication, TRAINING AIDS - A Handbook for Cooperative Teachers, served a useful training material for the training of teachers in audio-visual aids. The Handbook has been prepared by our Technical Advisor, Mr Daman Prakash, who has been responsible for the training of teachers in this field. The handbook has been commented upon by the participants and others and has been found to be an ideal material for training of teachers in this field in developing countries.

I earnestly hope and wish that the Handbook would be found of some use by you, the teachers. We would naturally appreciate to have your comments and suggestions on this training material.

W U Herath
Project Director.

TTP/Colombo-3,
December 01 1980.

INTRODUCTION

01 In any teaching-learning situation the role of audio-visual aids cannot be over-emphasised. This assumes greater importance when we talk about the cooperative education and training activities. In the education of members of cooperative societies an instructor faces various situations. A majority of members of primary societies in some of the South-East Asian countries are unfortunately illiterate, yet they form a legal socio-economic organisation called the Cooperative Society. By virtue of their being the members of this organisation they have to perform certain duties and take care of certain legal formalities. Unless they are aware of the importance of their rights and duties, cooperative organisations cannot be true democracies. This makes the task of the cooperative instructors still more difficult and delicate.

02 Besides adopting the lecture method or face-to-face communication techniques, an educator has to rely on certain other communication channels. Audio-visual aids and methods, therefore, come handy and they should be applied in communicating ideas more and more. The educator should, therefore, be given specialised training in communication methods and materials so that they could establish effective links with their audience. They thus need training in communication methods, e.g., lecture method, study visits method, seminars and conference method, study circle method etc. and in the production of communication materials e.g., posters, charts, graphs, flannelgraphs etc. They have also to be acquainted with the operation, care and use of certain other equipment e.g., tape-recorders, projectors, photography equipment etc. During the course of these training courses the instructors should be encouraged to produce simple audio and visual aids, learn their application and assess their effectiveness and usefulness.

03 The use of communication media and material is also used quite a great deal in the training of employees of cooperative societies. Cooperative Movements in South-East Asia have been operating their national and local level cooperative training colleges and institutes where

employees of cooperative organisations are given training for various durations in order to impart them with the necessary skills and to improve their professional efficiency. The faculty members of such institutions have good knowledge of subject-matter, but they often lack competence in training methodology. Such teachers need training in communication methods and materials.

04 The International Cooperative Alliance and the Swedish Cooperative Centre has jointly sponsored a Project for Training of Cooperative Teachers in Sri Lanka in collaboration with the National Cooperative Council of Sri Lanka. The National Cooperative Council operates a number of district cooperative education centres which offer Cooperative Employees' Certificate Examination Courses (Ordinary Level and Advanced Level) for the benefit of managers, accountants and other categories of Cooperative employees. The main aim of the Project is 'to enhance the effectiveness of cooperative training activities'. The Project, which commenced in 1978, has already offered various training courses in educational technology and production of trainingmaterial. Training courses in Audio-Visual Aids were obviously of great importance.

05 In order to conduct these courses, the Project had prepared a large number of training material in the form of handouts, papers and pamphlets. Similar material was produced by the Project to conduct workshops on Audio-visual aids. I had been largely responsible for such activities. Several of my papers had been used at our workshops. They have been commented upon by the teacher-participants and some revision was suggested. In order to give the future trainers some training material on visual aids, I took the responsibility of putting them together and to bring them into this shape - TRAINING AIDS : Handbook for Cooperative Teachers. The handbook offers material, illustrations, examples and ideas to operate a two-week workshop on 'the use and production of basic audio-visual aids for cooperative teachers'.

06 During the course of workshops on this subject, the teacher-participants also produced a whole lot of training packages on the subjects which they handle at their respective cooperative education centres. The training packages included notes for the teachers, notes for the students, visual aids and projected aids, participatory exercises and some case studies. The Project is now engaged in reproducing these training packages so that they could be made available to all the cooperative teachers and cooperative students in the country. This is

a major responsibility of the Project to see that the material is reproduced and distributed. In order to undertake the reproduction work, we had also established a small printing unit - with the Oce' Offset Printing Machine - which is to undertake production and distribution of training material throughout the country.

07 We, the technical staff of the Project, are satisfied with the work that has been done so far in the field of training of teachers in training methodology, production of cooperative training material and its evaluation etc. This is a big contribution of the international technical assistance to the Cooperative Movement of Sri Lanka.

08 While I write this I take the liberty of expressing my sincere gratitude to my teacher-participants who came to my workshops and participated in our programmes with pleasure. I appreciate their willingness to work and to learn and to help me learn. I also place on record my sincere thanks to my parent organisation - the International Cooperative Alliance Regional Office and Education Centre for South-East Asia - and its authorities who enabled me to work with the Project in Sri Lanka. I appreciated this very much as this opportunity gave me a chance to work in the field and with the people who really matter.

09 I thank my Project Director, Mr WU Herath, who involved us in the total work programme and who gave us the fullest possible freedom to develop and execute our own training programmes within the framework of the Project. Last but not the least, I thank my National Counterpart, Mr ER Mudiyanse, who was always with me in the classrooms, field and in the office to develop our training material and future projections.

10 I do not take any credit for being the author of this Handbook. I have only put the existing material together and in a sequence and got it updated and commented upon by my teacher-participants. So the credit for the Handbook should go to the users and to the Cooperative Teachers. There is no end to knowledge. It grows with the experiences gained. So long as we continue to remain close to the realistic situations we shall continue to keep our feet on the earth. Teachers should, therefore, continue to associate themselves with cooperatives, their employees and the general membership in order to gain more and more of practical experience.

Any suggestions and comments on this Handbook leading to its further improvement would be most welcome and highly appreciated.

Colombo-3
December 01 1980.

Daman Prakash
Technical Advisor-AVA,
TTP/Sri Lanka.

COMMUNICATION PROCESS AND COMMUNICATION MEDIA

CHAPTER 01

Introduction

01 Research and experience have shown that audio-visual techniques can significantly increase and reinforce learning. Visual aids must be carefully designed to support a leasson and to suit a particular audience and situation. The planning and preparation of such aids require time, thought and imagination in:

- Selecting the points to be visualised
- Translating ideas into suitable visual forms
- Choosing the most appropriate medium
- Designing the most effective layout and colours
- Designing (or producing) the aid
- Evaluating its effectiveness and revising the aid for future use (evaluation and improvement).

02 No single device is the best answer to all visual aids situations. The following factors help in choosing the best device for a particular presentation:

CIRCUMSTANCES: Size of the audience, time to be used, location of use, availability of equipment, transportation and electricity supply;

SUBJECT: Effects required in presentation e.g., surprise, shock, dramatisation. Building up gradually, selection of the ideal one for the subject e.g., OHP (Overhead Projector), flannelgraph;

COST: Availability of funds, material, time for procurement; and

AVAILABILITY: To use only that one which is easily available.

03 Always keep in mind the famous proverb 'ONE PICTURE IS WORTH 1000 WORDS'. An appropriate picture gives you so many things, feelings, thoughts and motivation.

04 In a learning process our aim should be to reinforce our verbal message with the visual messages to achieve a lasting effect. If we reduce our verbal messages, so much the better for the learner, but obviously not at the cost of effectiveness. In the modern educational technology the emphasis is on the use of audio-visual aids.

05 AUDIO-VISUAL AIDS OR VISUAL SENSORY AIDS HELP OUR SENSES OF THE HEARING AND SEEING TO ENABLE US TO LEARN EFFECTIVELY AND EFFICIENTLY. THROUGH THESE AIDS THE PROCESS OF LEARNING GAINS SPEED. THEY HELP IN THE PROCESS OF COMMUNICATION. Audio-visual aids are today being employed increasingly in all processes of teaching.

Communication

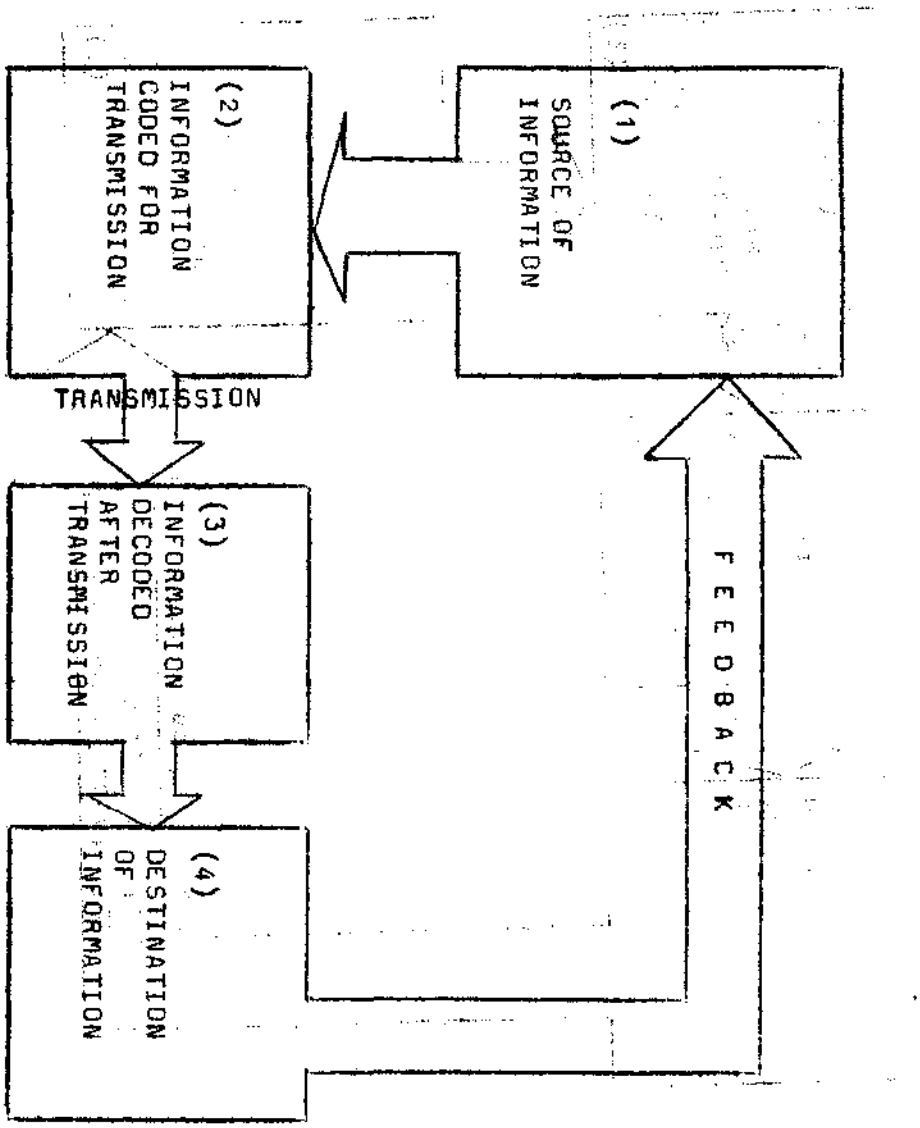
06 According to Edgar Dale, 'Communication is a two-way sharing process, not a movement along a one-way track. To communicate is to make an idea common to two or more persons.' The analysis of this statement will mean that (i) the communicator himself should be thoroughly acquainted with what he is going to teach; (ii) the receivers - audience - should be equally interested in what is going to be taught to them, and (iii) the process of stimulation should be heavily relied upon by the communicator.

07 Ken Garland's illustration of the Basic Pattern of Communication is the most simple one to understand the cycle of communication. The illustration points out to the following main stages:

- Source of Information
- Coding of information
- Transmission of Information
- Decoding of Information
- Feedback

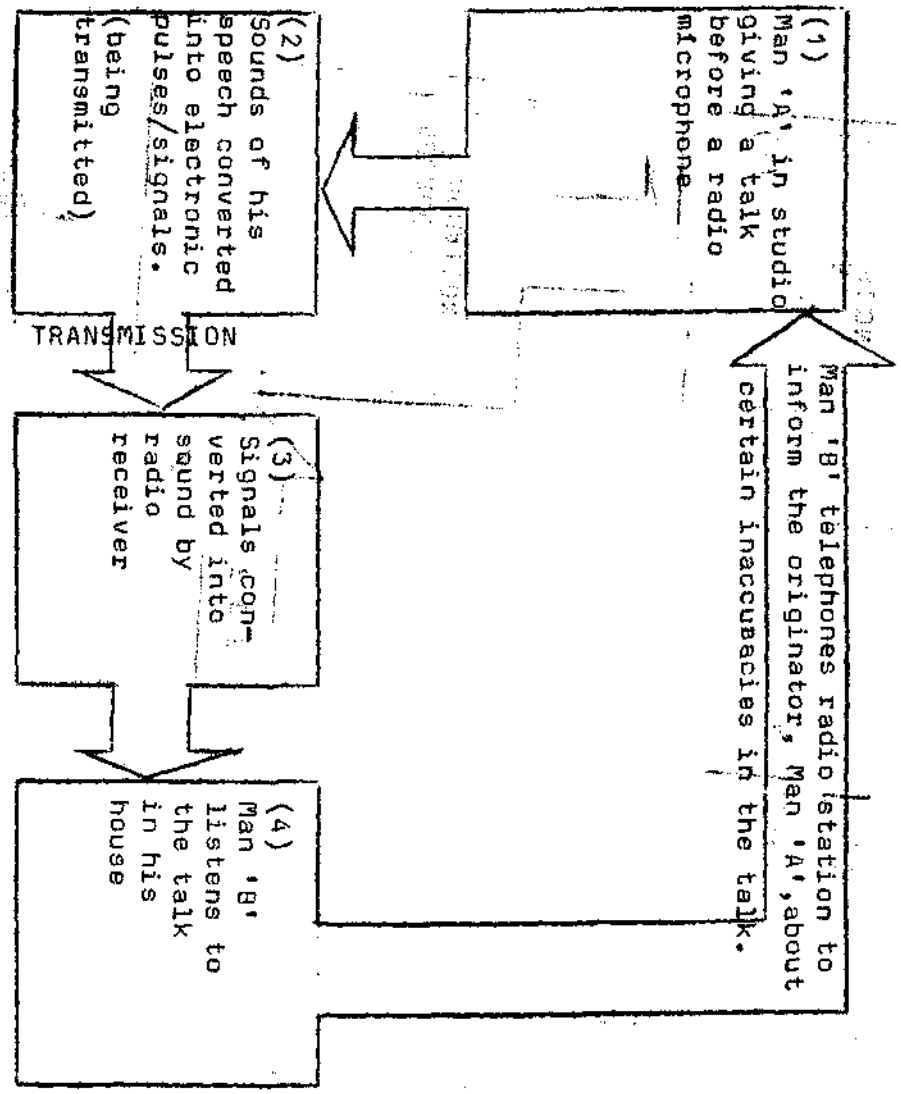
08 The source of information here means the information that is available for transmission and this information is obtained after research, investigation, experiments and observations. Educational institutions, research establishments, studies and other organisations have accumulated a whole lot of information and experiences. These have been scientifically collected and documented. These are to be transmitted to the people - or the target groups - for their use and benefit. The coding of information here means wrapping-up the information, converting it into signals which are convenient for transmission. These could be circulars, letters, books, advertisements, etc. The information has been coded into these forms. These coded signals are now transmitted or sent or despatched. These are done by using media e.g., newspapers, radio, television, films, slides, lecture notes, lectures and so on. The coded information thus transmitted is decoded, which means, explained. The audience should be able to receive the message. The newspapers must reach the readers, radio

BASIC PATTERN OF COMMUNICATION PROCESS

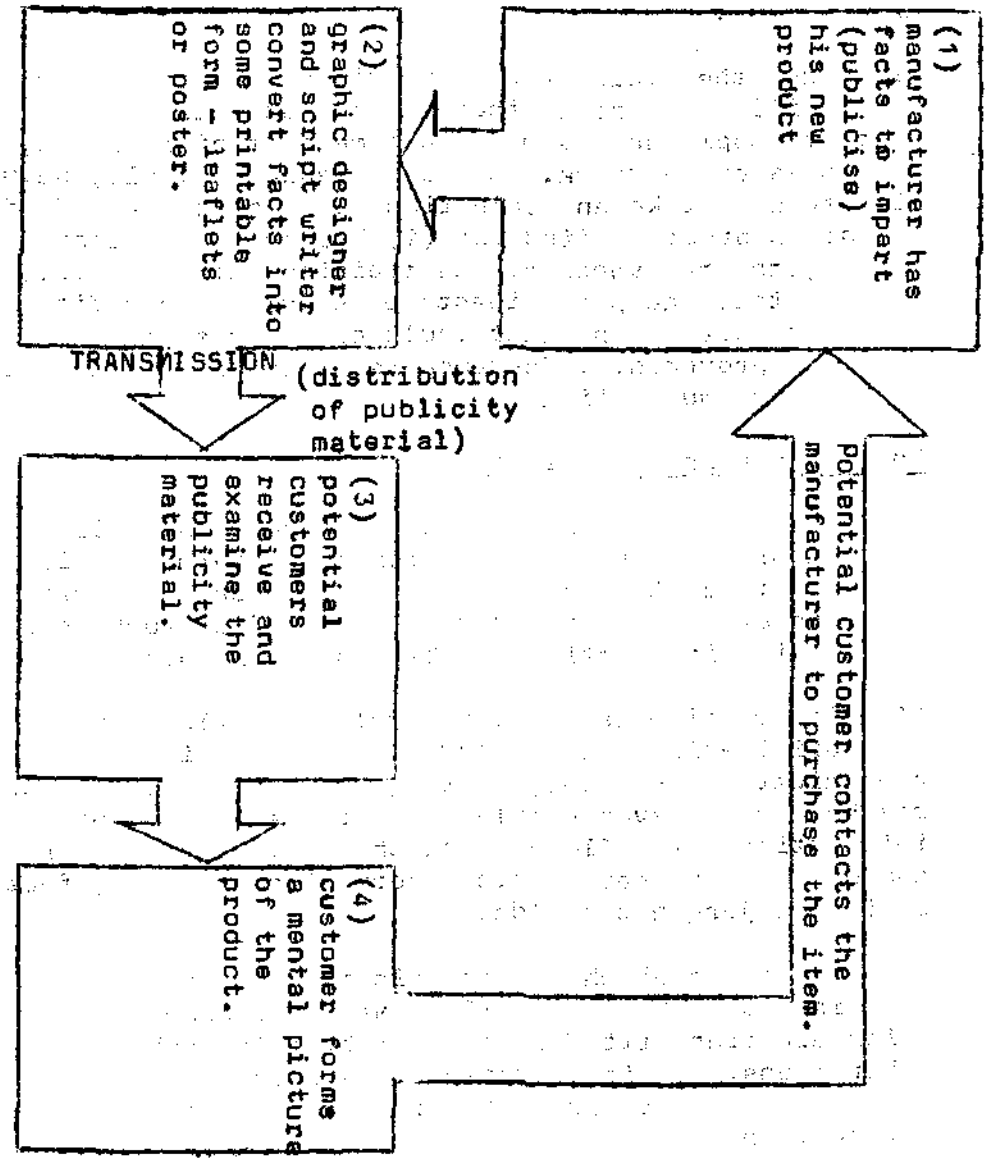


Source: Ken Garland's "Graphics Handbook", Studio Vista, London.

COMMUNICATION PROCESS : Example I



COMMUNICATION PROCESS : Example II



should be 'on' when there is somebody to listen, and so on. And ultimately, the important factor is the audience, the group of people for whom the message was intended. One circular may not be relevant to all categories of people, or one advertisement may not be intended for all the millions in the country and so on. The relevant audience should receive the message.

09 Once the cycle of communication is complete, we are still not sure whether the message was received by the correct people unless we have some sort of reaction, responses or feedback. A course manager, would, naturally, like to undertake an evaluation session at the end of the course in order to find out (i) his own performance at the course, the relevance of the training material etc., and (ii) whether the participants were able to benefit from the training course, and what would be their suggestions for future improvements. Feedback is an important element in the cycle of communication.

Information in Communication

10 Information is not a prime product, there is always an originating source which the information is about, it may be a thought in someone's head, which he informs us about by means of speech, or it may be an object such as a car, about which information can be made available.

11 Information is of no use unless it flows out from its originating source, and this process is called communication. However, varied the channels of communication may be, and however complex the processing of the information which flows along them, all messages are composed of the same basic information elements, facts, or in the jargon term 'data'.

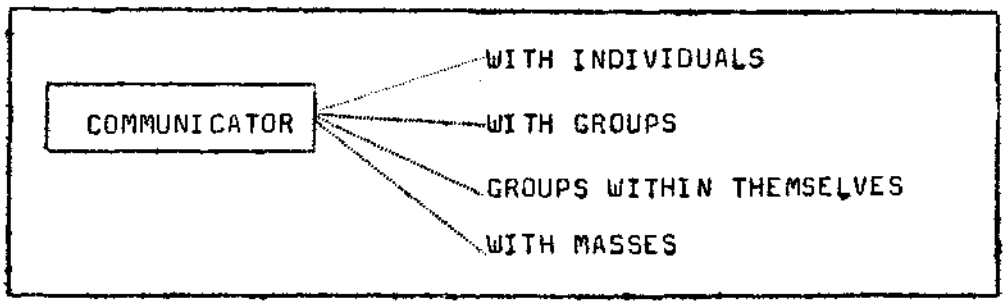
12 The facts which the graphic designer is concerned with in his work are different in essense from the facts which are transmitted by speech, by telegraph, or by any other means, and it is those facts which are the concern both of the originator and of the recipient of any transmitted information.

13 The graphic designer, as one of the people involved in the techniques of communication, is in danger of becoming obsessed with the nature of the techniques and of forgetting the nature of the communication itself, that is, the kind of facts, their meaning and their relationship to one another. Understanding the essense of the message must always precede its processing for transmission. If there are parts of it which the graphic designer cannot understand because they are in technical jargon or because they deal in concepts with which he is not familiar, he must ensure that they are methodically collected, classified and selected before he is called on to process them.

14 Nor do the systems with which he is concerned always work in one direction only - from originator to recipient. Many of them have FEEDBACK mechanisms by which the recipient may (conciously or unconciously) inform the originator of the ways in which he interprets and acts upon the message. As this feedback operation becomes increasingly effective the graphic designer may be in for some shocks. Some of his favourite devices may turn out to be quite incomprehensible. Feedback is a double-edged weapon.

Audience and Communication

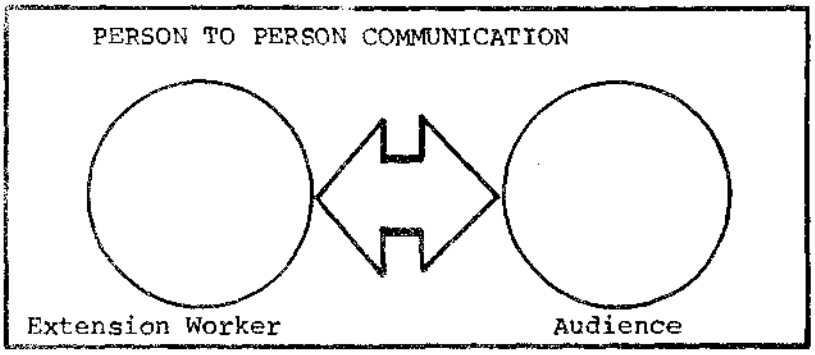
15 Who are our clients? We are the teachers or the trainers. In the first place we have the co-teachers or co-trainers are our audience. We train them to train others. They modify their methods of communication. We communicate with people and PEOPLE ARE HUMAN BEINGS. They have their own feelings, likings, appreciation, way of life, language and personalities. We cannot communicate with all people in the same fashion. We communicate with individuals, we communicate with groups, groups communicate within themselves, we communicate with the masses.

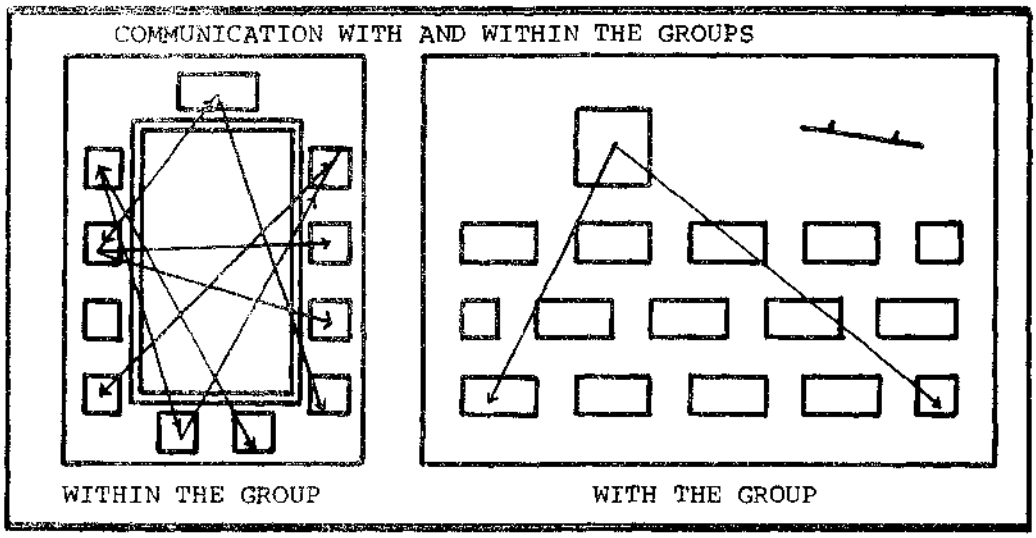


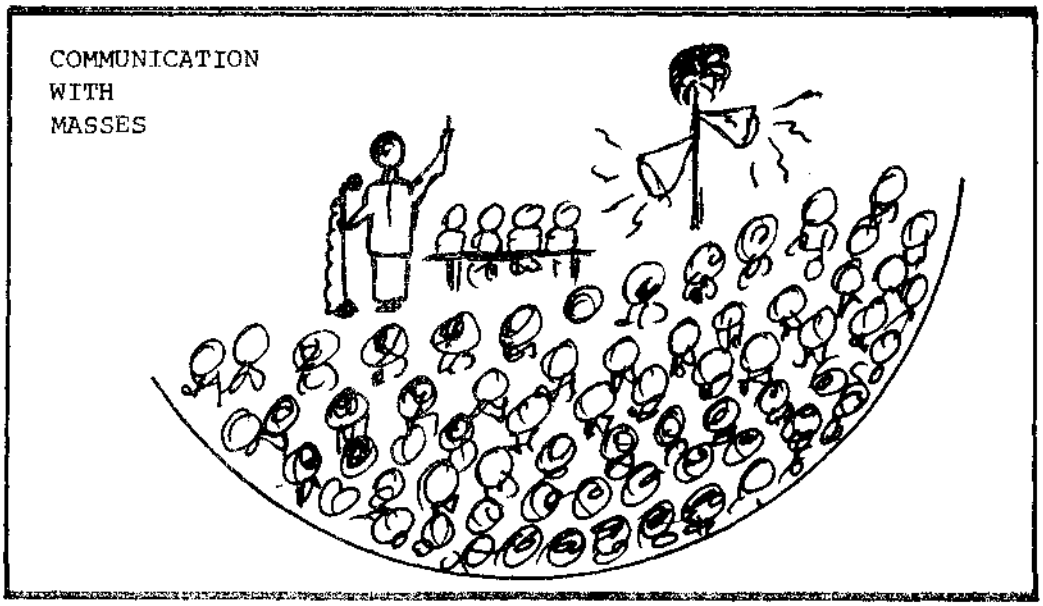
16 As is the clear from the above, the audience may consist of a single individual or it may consist of a large number of people. Since our main aim is to train the teachers in the context of cooperative teachers, the audience may consist of 20-50 persons. The audience may be literate and may be able to communicate effectively with the communicator - the teacher - properly. The communicator may communicate directly with the audience in their own language or through an interpreter. Besides using verbals, the teacher has to make use of various teaching aids - audio-visual aids - gestures and cues in order to establish an effective rapport with the audience.

17 The communicator makes a judicious combination of words with illustrations, pictures, photographs, chalk-board, projectors, dramatisation, signs and gestures. The physical appearance of the teacher is also of great significance. His voice should be audible, pleasant and persuasive. His poise should not be aggressive and his manners need not be 'arrogant'.

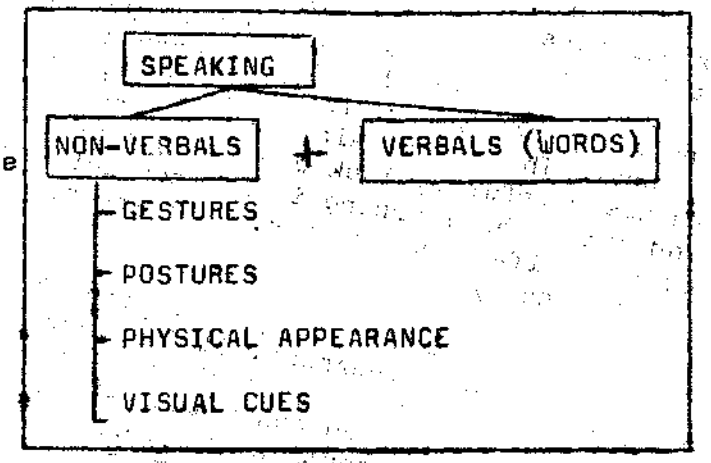
COMMUNICATION : TARGET GROUPS





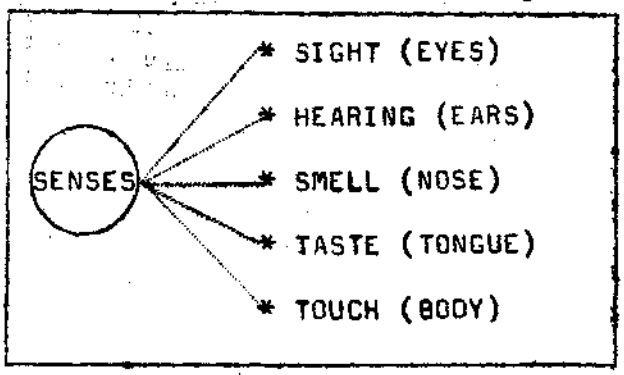


18 The speech or the audio aids (or sense) can be explained in the following manner. We speak, but at the same time we make use of other parts of our body. We make use of eyes, postures and other expressions or cures. We make use of verbal cues, visual cues and body cues. When we like a certain thing, we express our satisfaction or dissatisfaction through our postures or appearance. Our expressions change. We then see differently and we look a bit differently. These are the expressions, and expressions also can be used in communicating with people. We do not make use of words of mouth, but we express our feelings by a mere twist of our lips or opening up our eyes a little more than usual.



Senses and Communication

19 The five senses that we all human beings possess are used in communicating with people. But in teaching/learning situations, all the senses cannot be fully used. The five senses, which we possess are: Sight, Hearing, Smell, Taste and Touch. In communicating with people, we hardly make use of smell and taste. All the other three senses that we make use of also cannot be used in isolation. There has to be a proper combination of these three. Audio (that is hearing), and visual (that is seeing) are the most sensitive senses that we use. A combination of these two make audio-visual senses. Hence we come to the point of discussing audio-visual aids or senses in the process of learning/teaching.



Learning and Retension of Knowledge

20 We human beings continue to learn all the time. We also continue to teach others. The process of learning and teaching, therefore, is an integral part of our life. We see things, we observe people and situations, we do work and in this way we keep on accumulating experiences and

impressions. To us, communicators/teachers, these experiences and impressions are of great value because it is with their help and support we communicate with others. There has to be learning prior to teaching. And learning is a difficult process, it is a painful process. There are pains in learning. We have to study things carefully, look over them over and over again and still the learning is not complete or comprehensive. It is a life long process. We learn by hearing, by seeing and by doing.

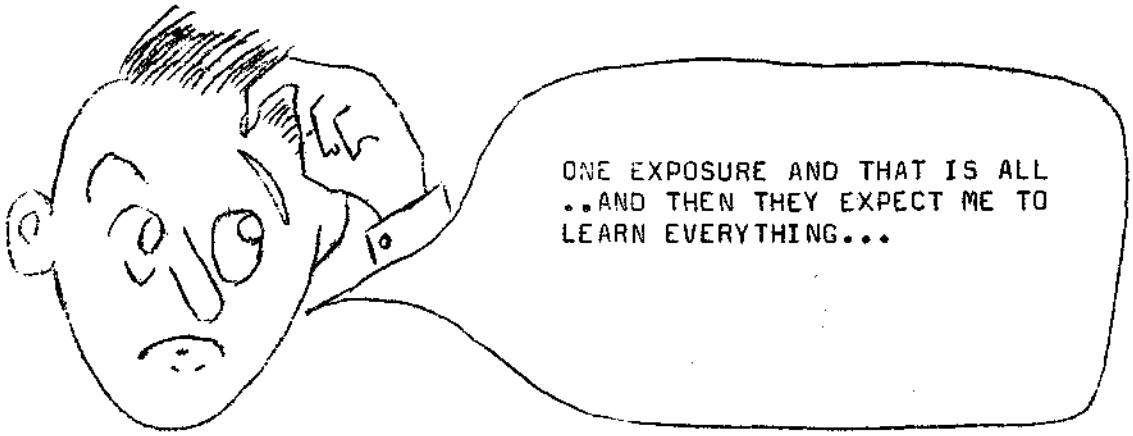
21 What is our capacity to learn? There is no sure method to measure learning. It is a personal 'matter' and a man learns according to his mental capacity. Some experiments had been conducted by educational scientists to measure the retention of knowledge under various conditions. Some others have done experiments as to establish how do we learn! We learn by taste, through touch, through smell, through hearing and through sight. We learn the minimum through taste, but surely the experience gained is more or less permanent. We learn the maximum through sight - 83% - a very high percentage. The learning through Hearing is 11%, which again is quite high. A combination of the two would be very effective. That is why we learn 'sufficiently enough' through a combination of Hearing and Sight, i.e., audio and visual.

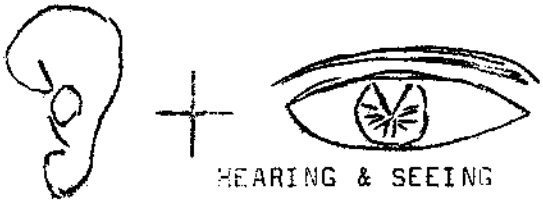
HOW MUCH DO WE LEARN?	
Through TASTE	1%
Through TOUCH	1½%
Through SMELL	3½%
Through HEARING	11%
Through SIGHT	83%

22 Learning is one aspect of gaining knowledge, but retention of knowledge another factor. When we are exposed to a certain experiment in the laboratory - when the experiment is conducted by the laboratory assistant - we, as students, feel that we could also do the experiment ourselves. But when we are out of the laboratory for some time and then we are exposed to the situation directly, we find that the exposure - the single exposure - was not enough. We had not 'retained' enough knowledge to ourselves. The retention of knowledge is 50% with a combination of Seeing and Hearing. The highest retention is through action - learning by doing. That is the reason why all adult and child learners

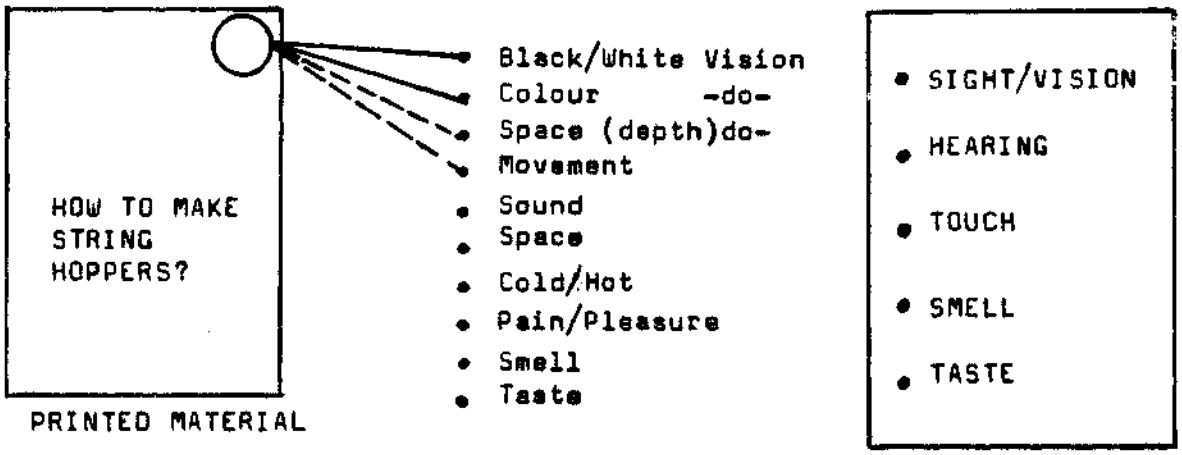
HOW MUCH KNOWLEDGE IS RETAINED BY THE LEARNER AFTER ONE EXPOSURE?
10% of what they READ
20% of what they HEAR
30% of what they SEE
50% of what they SEE & HEAR
70% of what they SAY as they TALK
90% of what they SAY as they DO

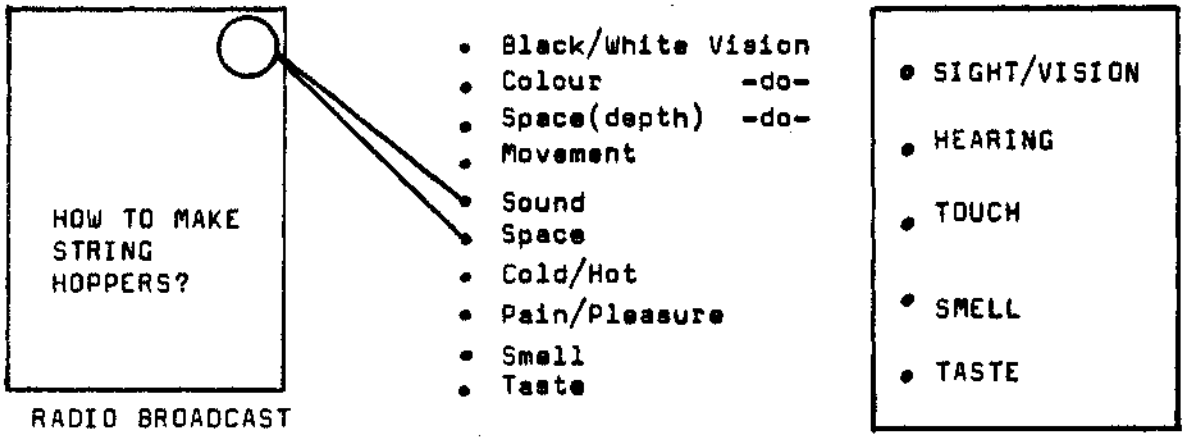
CAPACITY OF RETENTION AFTER A SINGLE STIMULUS

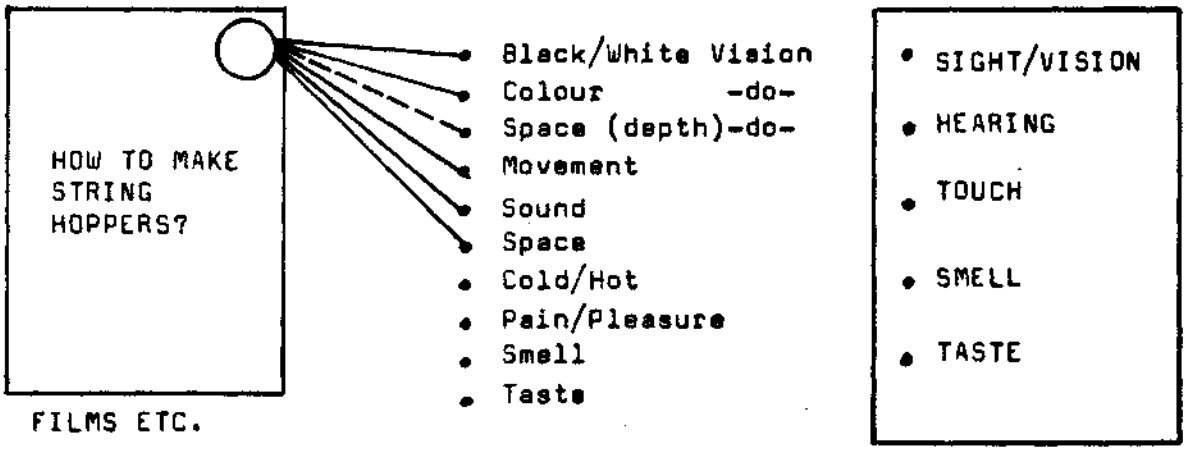


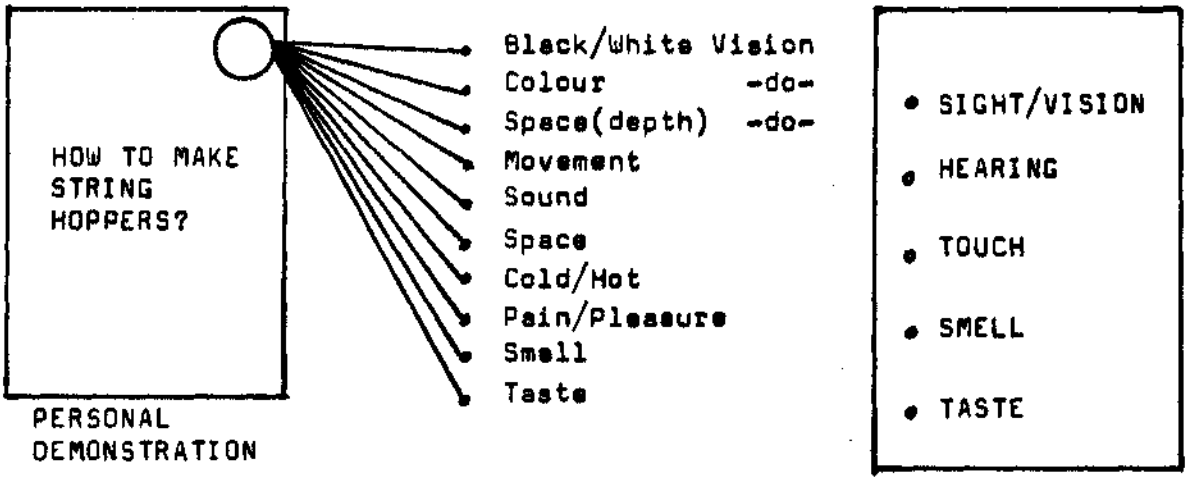
 READING	10%
 HEARING	20%
 SEEING	30%
 HEARING & SEEING	50%

DO-IT-YOURSELF IS THE BEST LEARNING.









are exposed more to the activity aids. All educators who are serious about imparting a sound knowledge to their students emphasise on the use of field trips, demonstrations, participation etc.

The Purpose and Use of Audio-Visual Media

23 It is unfortunate that audio-visual materials are so often referred to as 'teaching aids'. As is clear from the foregoing, the only real justification for their use is that they actively help students to realise their learning objectives. On some occasions, however, so called 'aids' can actually become hindrances, if not barriers, to learning, for they can get between a student and his objectives. This is a problem of planning and organisation, of course, but the real issue is that audio-visual materials should only be employed when effective use can be made of their distinctive properties.

24 Some of the properties of audio-visual materials can be listed and discussed here. A useful rule of thumb to apply when decisions have to be made is to ask the question. 'How will this aid be used so as to capitalise on its distinctive attributes?' Generally speaking, audio-visual materials have five properties:

(1) The ability to help promote perception.

(2) The ability to help promote understanding.

(3) The ability to help promote transfer of training.

(4) The ability to provide reinforcement or knowledge of results.

(5) The ability to help retention.

25 Not all media, of course, possess these properties to the same extent. Nevertheless, these are the attributes that a teacher must capitalise upon, otherwise the materials will lose their raison d' etre in the learning process.

26 In reviewing the field of audio-visual aids, three broad generalisations can be drawn:

(1) Students do learn from audio-visual materials.

(2) The amount they learn depends upon the appropriateness of the audio-visual aid to the learning objectives and the structural properties of the task.

(3) Learning from audio-visual aids can be directly and appreciably enhanced by teachers in the following ways:

(a) introducing the materials and stating the objectives to be realised by them;

(b) Obtaining student participation, particularly with more able students. (There is a faint suggestion in the literature that low IQ students retain significantly more if they learn without actively reponding to audio-visual aids like films and television.)

(c) Employing attention calling devices like arrows and pointers; questions and discussion; assignments and projects;

(d) Repeating student exposure to the materials.

27 These finds are particularly important for they mean that audio-visual materials are WORTH USING, and they are also WORTH USING WELL.

Audio-Visual Aids

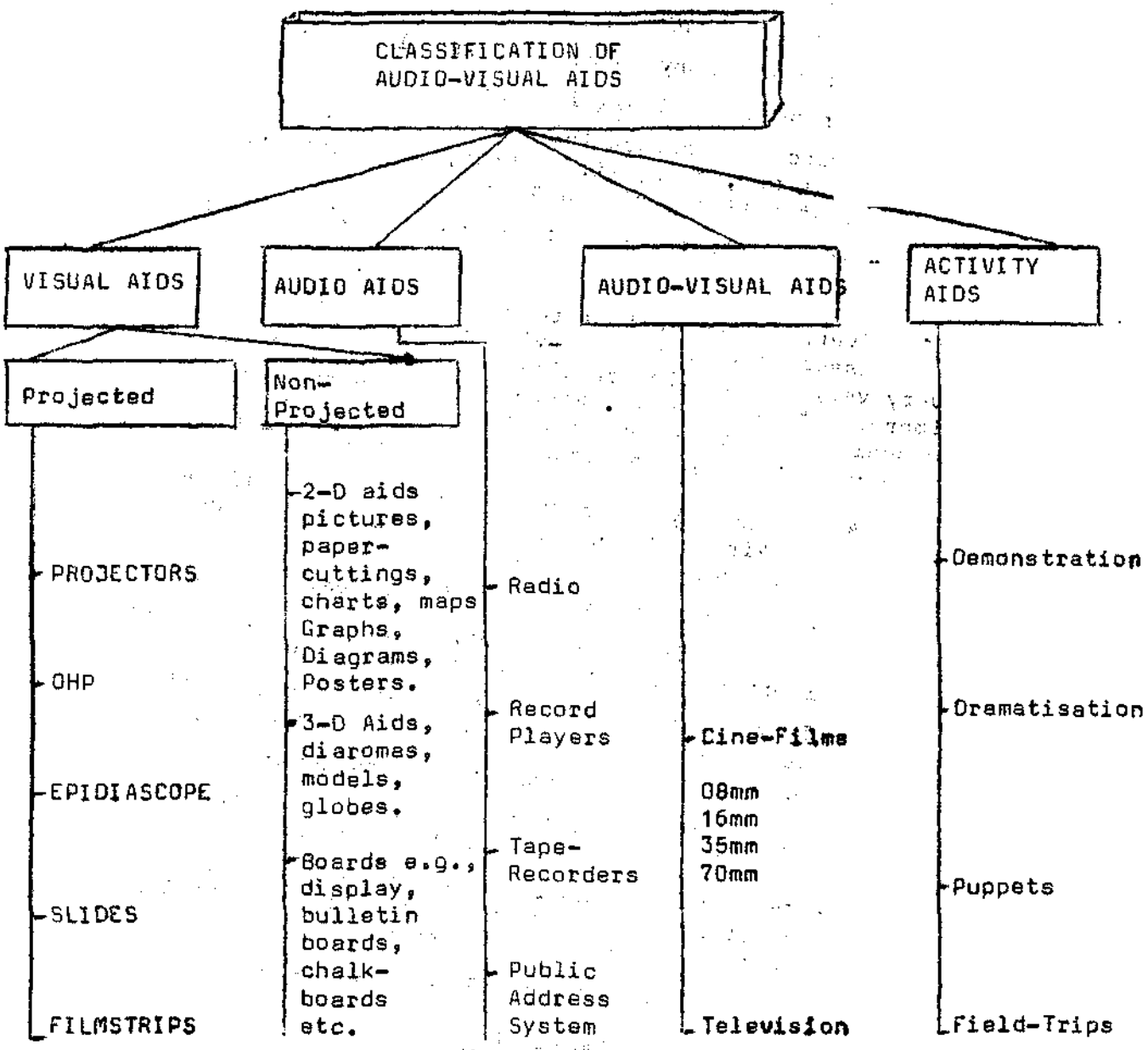
28 Audio-Visual aids [illegible] visual sensory aids help our senses of the hearing and seeing to enable us to learn effectively and efficiently. Through these aids the process of learning gains speed. They help in the process of communication. Audio-Visual aids are today being used in training, education, commerce and propaganda. The use of these aids is not a new concept. These have been in constant use. The great and valuable paintings in caves and temples were created to achieve an effective communication with the people.

29 A simple classification of audio-visual aids available to a communicator today is given overleaf. It would be seen that the audio-visual aids are broadly classified into four groups. Visual aids are again classified into two segments i.e., projected aids and non-projected aids.

Why Audio-Visual Aids?

30 A majority of traditional teachers still look upon the audio-visual aids with some 'contempt' or 'concern'. Maybe, they feel their personality or wisdom is threatened or questioned. But this is not correct. Audio-visual aids, on the other hand, enhance his capabilities and improve his image as a good teacher. The audio-visual aids are necessary or useful because these aids:

- make communication easier and more realistic;
- accelerate and vitalise the process of communication;
- stimulate interest and motivate persons for further communication;


CLASSIFICATION OF AUDIO-VISUAL AIDS
VISUAL AIDS
AUDIO AIDS
AUDIO-VISUAL AIDS
ACTIVITY AIDS
Projected
Non-Projected
PROJECTORS
OHP
EPIDIASCOPE
SLIDES
FILMSTRIPS
2-D aids pictures, paper-cuttings, charts, maps Graphs, Diagrams, Posters.
3-D Aids, diaromas, models, globes.
Boards e.g., display, bulletin boards, chalk-boards etc.
Radio
Record Players
Tape-Recorders
Public Address System
Cine-Films
08mm
16mm
35mm
70mm
Television
Demonstration
Dramatisation
Puppets
Field-Trips

- compel (rather hold) attention;
- cover more subject-matter in a shorter time;
- thus save time in communication system;
- enrish communication;
- can reach many people one and all at the same time;
- can be used at all levels;
- overcome barriers in communication such as distance, time, size, shape, very slow and fast motions, hidden things;
- motivate persons to follow-up activities and action.

31 Everyone agrees that teaching methods, if associated with audio-visual aids, could bring very very encouraging results. Schools and colleges have improved their results. Researchers have made use of audio-visual aids with advantage. These are the points which have been made by researchers about the audio-visual aids.

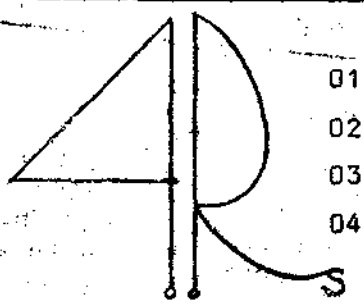
* They supply a concrete basis for conceptional thinking and hence reduce meaningless words responses of students;
* They have a high degree of interest for students;
* They supply the necessary basis for developmental learning and hence make learning more permanent;
* They offer a reality of experience which stimulates self-activity on the part of the students;
* They develop a continuity of thought;
* These aids contribute a growth of meaning and hence to vacabulary development;
* They provide experiences not easily secured by other materials and contribute to efficiency depth and variety of learning; and
* These aids help to retain more for a longer time.

When to Use Audio-Visual Aids?

32 Audio-visual aids are very delicate tools available with the teacher/communicator. He should not use them indiscriminately. Audio-visual aids are not complete by themselves. They are only the vehicles of knowledge. The knowledge, information and wisdom is with the books. The books are used by the teachers. They make their own notes and on the basis of these notes they teach. Audio-visual aids, if used to supplement these

notes, can help the teacher as well as the students. Use of many audio-visual aids at the same time should be avoided. Use of too many aids may convert the classroom into a workshop, thereby distracting the attention of the audience. One aid can be manipulated so as to achieve several effects. One portable chalk-board could serve as a chalk-board, a flannelboard, a flip board, and a magnatic board. Much, of course, depends upon the initiative, creativeness and resourcefulness of the teacher himself. BUT, Please use the audio-visual aids carefully. Remember, the 4-Rs.

FOUR RIGHTS IN AUDIO-VISUAL AIDS



01 RIGHT USE
02 RIGHT TIME
03 RIGHT TYPE
04 RIGHT WAY

THE PROPER USE OF AUDIO-VISUAL MATERIALS*

Audio-visual materials can do these things:

Promote a mood of mutual understanding and sympathy in our classroom.

Bring about significant changes in student behaviour.

Show the relationship of subject-matter to the needs and interests of pupils, with a consequent heightening of motivation for learning.

Bring freshness and variety to the learning experience.

Make learning meaningful over a wide range of student abilities.

Encourage meaningful use of subject-matter by allowing for imaginative involvement and active participation - the 'I was there' feeling that results in increased learning.

Provide needed feedback that will help the pupil to discover how he has learned.

Furnish the rich experiences from which meaningful concepts will be developed.

Assure the order and clarity of thought.

*Edgar Dale's Audio-Visual Methods in Teaching. 3rd Edn.

ASPECTS OF LEARNING

- a summary

THE more a trainer can arrange the learning situation so as to utilise these principles of learning, the more likely the learner is to learn. Thus, a training programme, or a teaching teachnique, will be judged adequate to the degree that it appears likely to:

- provide for the learner's active participation
- provide the trainee with knowledge of results about his attempts to improve
- promote by good organisation a meaningful integration of learning experiences that the trainee can transfer from training to the job
- provide some means for the trainee to be reinforced for appropriate behaviour
- provide for practice and repetition when needed
- motivate the trainee to improve his own performance
- assist the trainee in his willingness to change.

LEARNING is a life-long activity; we are never too old to learn, but we are frequently resistant to change. People often talk about problems as if they safeguarded their position, e.g., 'There are so many problems I cannot change.' What they mean is, do not remove the problems or I might have to change. Learning is change.

-reproduced from 'An Introductory Course in Teaching and Training Methods for Management Development'. ILO Manual 36. Geneva.

CHARACTERISTICS OF A GOOD TEACHER

* Emotional stability and sound mental health.
* Physical health and dynamic personality.
* Above average intelligence.
* Creativity, imagination and resourcefulness.
* Good grooming, poise and refinement in voice and action.
* Courtesy, kindness, sympathy and tact.
* Patience.
* Sincerity and Honesty.
* Firmness.
* Promptness, efficiency and ability to organise.
* Positive and encouraging attitude.
* Democratic leadership.
* Professional status

A teacher has not only to teach, lecture and talk in the class but has also to guide and be friendly with the people who he teaches. He is to impart knowledge and not to impose it on the people. He should not be a banker of knowledge.

CHAPTER 02

CHALK BOARD

Introduction

01 No classroom is complete without there being a chalkboard (or a black board). Also no teaching seems to be complete without using a chalkboard. Teachers have always used some media to communicate their views to the audience and this media - in a majority of instances - had been the chalkboard.

What it is?

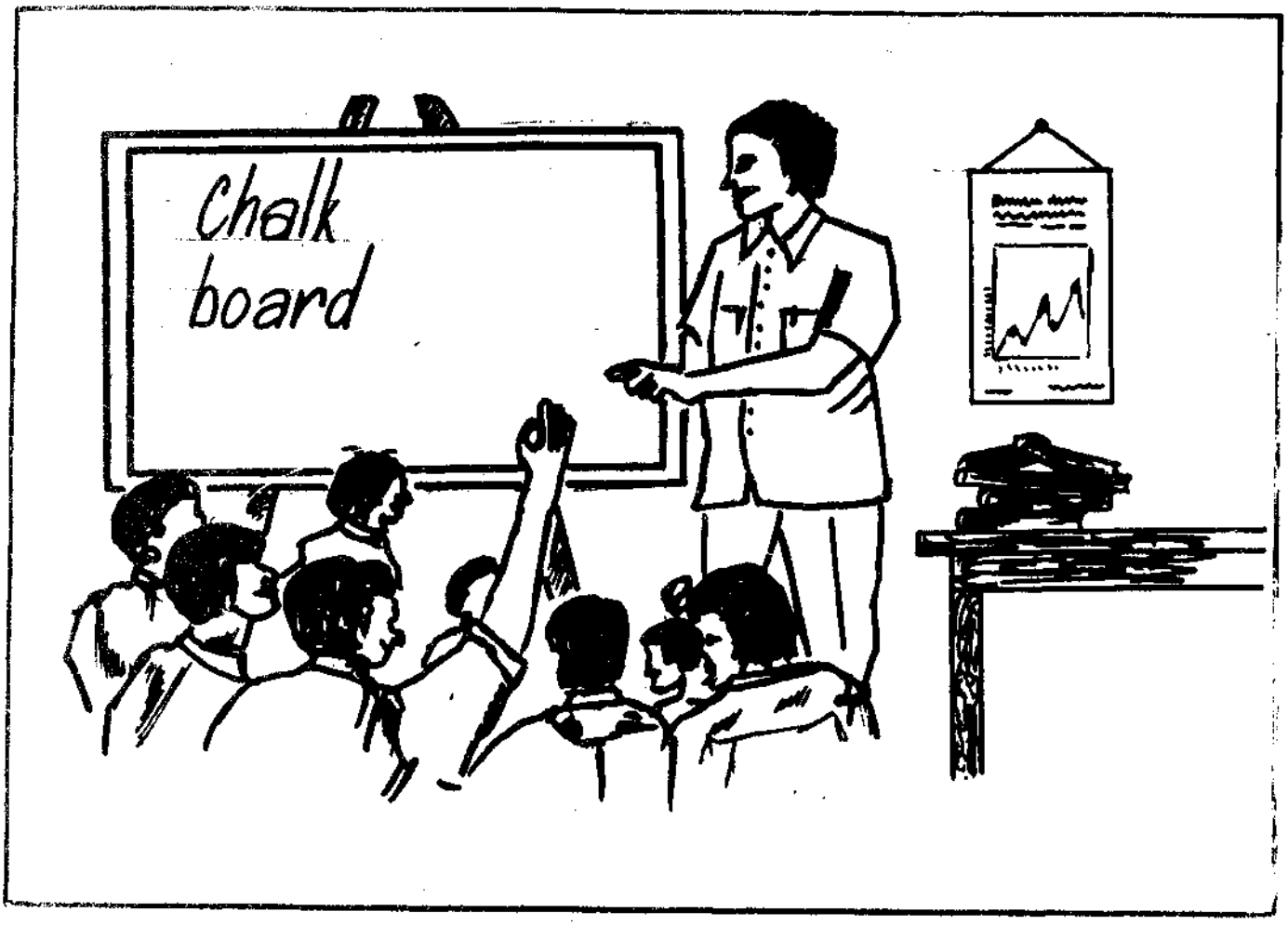
02 Chalkboard is a piece of commercial ply about 5cm thick of desired length and width. Its one surface is painted with chalkboard surfacer. The painting is generally four coats - two vertical and two horizontal. The chalkboard surfacer can be of black, grey or green colour. Choice of colour is, of course, optional. The board may either be mounted on to the wall in front of the audience or kept on a board stand. The board stand should be rather sturdy. Chalks of various colours are used for writing. Dustless chalks are also available on the market. Chalks should be soft so that they do not screech when you write on the board.

Advantages of Using a Chalkboard

* Generally available and inexpensive
* Durable
* Gives larger area for the user
* Large enough to be seen by the audiesce
* Requires no advance preparations
* Ideal for mathematical work, illustrations and diagrams.

[illegible]

2/2-2



Limitations in Using a Chalkboard

** Requires the teacher to turn away from the audience;

** The teacher tends to ignore his audience and speak to the board;

** Dusty and messy to hands, clothes and to the nearby equipment e.g., OHP;

** Dramatic and unusual effects not easily possible;

Cautions in Using a Chalkboard

*** Write for the audience and not for yourself;

*** Use capital letters for better clarity;

*** Use colour chalks for emphasis;

*** Use dustless chalks when possible;

*** Do not stand in-front of the board when audience is taking down notes;

*** Do not overcrowd the board;

*** Do not talk to the board;

*** Clean the board before leaving the class.

03 The light falling on the blackboard must be of the correct illumination and from the correct angle giving maximum light but preventing glare.

04 The lettering on the blackboard should be 2" to 3" to make it visible to students sitting at the rear of the classroom.

05 The chalkboard should always be maintained in good condition and whenever its surface becomes worn or glossy fresh black paint can be applied to give it an uniform darkbackground. The ingredients needed for the blackboard paint are:

(i) non-greasy soot and ashes, left from a woodfire;

(ii) linseed oil.

(Readymade chalkboard surfacers in various shades are also available commercially.)

06 The ashes should be passed through a sieve to obtain a fine powder. 500cc of linseed oil, 200cc of fine powder of ashes and 5 teaspoonful of soot is mixed thoroughly to make a paint for the chalkboard. At least a period of three weeks should be allowed for the surfacer to become absolutely dry and hard.

Practical tools for the Chalkboard

07 In order to make the best possible use of the chalkboard, the teacher should keep some of the equipment ready for use. Some of them are:

i. A pair of compasses for drawing circles, made of a piece of rope with which chalk is tied at one end;

ii. A ruler for drawing straight lines. It must be straight and should stick well on the chalkboard surface;

iii. A T-square which provides a convenient tool for drawing parallel lines and guide;

iv. Patterns should be prepared in advance to save time during class hours to draw maps, diagrams and figures. Sometimes it will be helpful to draw figures also in advance before the class starts and students assemble.

Making Diagrams on the Blackboard

08 The following methods could be used for making diagrams while making use of the Chalkboard:

i. Grid Method

With the grid technique, enlargement of original drawings made on ordinary size of paper could be obtained on the blackboard in large scale. Some squares are drawn on the original drawings. The chalkboard is blocked off in larger squares. The original drawings can thus be transferred to the chalkboard by drawing one square at a time.

ii. Pattern Method

This method is suitable for drawing complicated maps of villages, countries, states etc. Drawings

are made on a piece of paper for each illustration which has to be put on the blackboard. Then with a punch or perforating machine, the illustrations are perforated in outline at 1" intervals. When the complete drawing has been punched out, the pattern is held against the chalkboard and the duster is rubbed firmly across the perforated section on the outline. Thus an outline of chalk dots appears on the board. These dots can be connected freehand with a chalk.

iii. Template Method

Template can be made on any thin, stiff and light-weight material like cardboard or sheet metal. The design is drawn on the material and then cut and the template is ready for use. The template is held against the chalkboard with one hand and is outlined on the board with a chalk.

iv. Elastograph Method

The elastograph helps to make an enlarged copy of the diagram by using an elastic string. The original drawing is attached on the blackboard and one end of the elastic string is pinned at a point to the left of the diagram in such a way that, when stretched, the knot may cover a point of the drawing. At the other end of the string, a piece of chalk is attached which marks the enlarged drawing on the chalkboard. The knot should be kept above the outline of the original drawing. The larger the distance between the chalk and the knot, the greater is the enlargement obtained.

Summary

09 The chalkboard is the most common aid that is used by the communicators and teachers all over the world. With all the modern teaching aids available to the teacher, the chalkboard is still in great demand and in use. It has several advantages besides its being cheap and easily available. There are certain limitations on the use of the chalkboard and some precautions have to be taken by the teacher in its use.

10 The communicator should also try to keep with him some simple equipments to make a full use of the chalkboard. He should put the chalkboard to the most practical use and by making technical diagrams etc. on it for the benefit of the audience.

CHAPTER 03

FLANNELGRAPH

Introduction

01 The flannelgraph (or flannelboard) is the most adaptable and flexible teaching aid. The user is able to present material to his students at the right moment and is thus able to build up a composite picture step-by-step. Drawings, titles, illustrations and headings may be added at will, and associations clearly demonstrated. Materials can be rearranged, developed and simplified at will. The principle is so closely allied to the learning process that its effectiveness depends solely on the careful choice of material, and the care and skill of the user.

02 Pictures, illustrations, captions and other symbols prepared on light card or stiff paper backed with a light fluffy material. When these items are placed on a board covered with a similar material, the fibers of the two interlock on contact, and a light temporary adhesion takes place. If the flannelboard is lightly brushed before use, this adhesion is improved.

03 This aid has also some other names e.g., khadigraph (because khadi cloth is used as a backing material on the board), plastigraph (because plastic sheet is used as a backing material on the board and the cutouts are also made of plastic sheets), Hook-and-Loop teaching aid (because the hook-and-loop material is used as a backing material on the board as well as it is used for the cut-outs), etc. Whatever be the name, the principle remains the same, It is a very simple and effective teaching aid that a teacher can possess.

Types of Materials Used

04 Supporting Board. You need a reasonably large board covered with flannel cloth. As mentioned earlier, you can use other materials as well e.g., khadi, towelling cloth, blanket, flock paper.

05 The size of the board could be 24" x 26" or 30" x 40". You can even make use of the existing chalkboard (portable one) by covering it with flannel cloth. Size is not very important, but it should be kept in view

so that all members of your audience are able to see the board clearly from all corners of the classroom.

06 The cloth should be tightly and firmly fixed against the supporting board. For temporary use, clips or tapes can be used to hold the material. Permanent flannelboards have their advantages but are not so easy to transport. All board should preferably be used with a slight backward tilt at the top.

07 The cloth could be of dark green, blue or black. Deep colours are preferable because this colour will provide a contrast to the cut-outs.

Symbols and Lettering

08 These can be drawn directly on the flannel cloth pieces and thus could be used as cut-outs, or they can be drawn on thick card and then backed with sand-paper. Sandpaper sticks better on to the flannel cloth.

Materials that you May Need

09 You will need the following material to construct a full flannelgraph:

- Supporting board (plyboard or other)
- Flannel cloth to cover one surface of the board
- Board stand or a tripod stand
- Hardboard or thick cardboard for cut-outs
- Colour poster paper
- Gum, adhesive or glue
- Pencils, magic ink pens (felt-tip pens)
- Scissors
- Sandpaper or flock-paper
- Writing paper for making the scheme or layout
- String

10 The illustration of the flannelgraph and the given description will enable you to understand the composition and construction of a flannelgraph. If you are able to gather the above resources you can venture in the construction of one set for your use. This is the simplest that could be suggested. Some more detailed versions are also available.

How to Use the Flannelgraph?

11 In using the flannelgraph you have to:

- decide on the story to be presented;
- prepare cut-outs (or appliques); and
- present the material

12 We can now discuss these points in detail.

Decide on the Story to be Presented

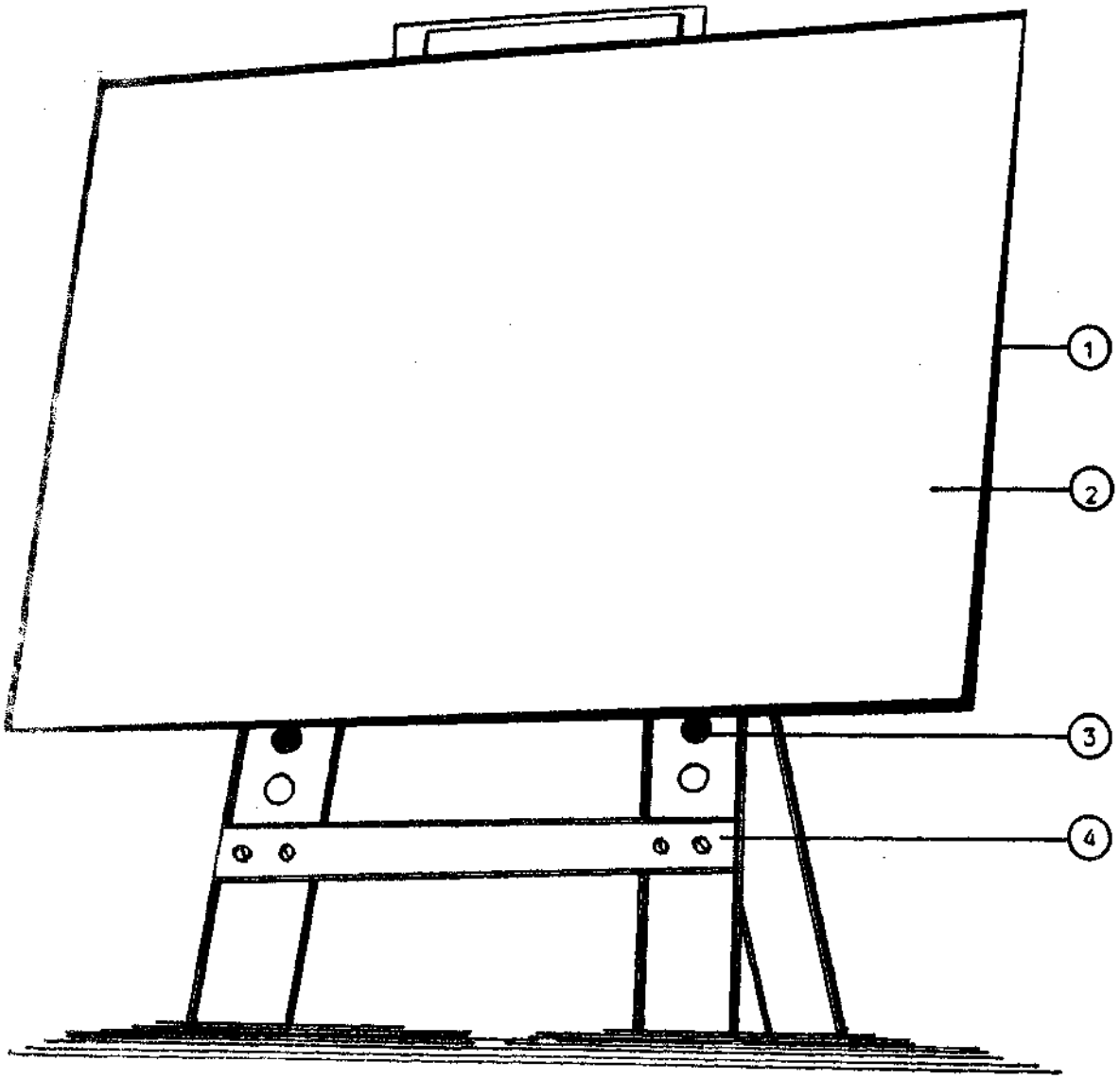
13 It is always good to discuss the subject in stages. You have, therefore, to break the subject down into some small steps and take up each step for discussion at one time. If you try to discuss several points together, you may not be effective and also the students get confused. They may not be able to follow you. In order to break the subject into smaller steps, you better write down the sequence of your subject. Do not write the whole detail of the topic, but only the main points which, of course, can be elaborated by you at the time of presentation.

14 Also at the same time you should make a scheme of your presentation. When will cut-out (No.1) appear and what points will you make then. Plot out on a piece of paper how your cut-outs will appear on the flannelboard. Give them serial numbers. This piece of paper will be your guide or the scheme or thelayout. This paper will stay in front of you during the presentation of the lesson. This will keep you on track.

Prepare Cut-outs (or Appliques)

15 As mentioned earlier you have to write out the theme of the story. That theme has to be supported by some visuals - these visuals are called the cut-outs or appliques. Cut-outs are made from hard card-board. The back of these card-board cut-outs is supported by sandpaper and also is given the serial number according to the sequence of the story. These cut-outs can be either textual or pictorial. Simple illustrations can be made by the teacher himself. The illustrations or the texts should be bold enough, so that these could be seen from a distance clearly. Each cut-out should have a backing of good quality sandpaper or of flocked paper. Cut-outs pertaining to a lesson should be kept in one large envelope together with the theme of the story. On the theme sheet serial number of the sequence should appear. This will help the teacher in placing the cut-outs in the correct manner and at the right time.

Flannelgraph



Flannelgraph

Description

1. Supporting board. A plain, even-surfaced piece of wood. Size generally used is 4ft x 3ft.

2. Front surface of the flannel board. The supporting board is covered with flannel cloth on one surface. The cloth is either pasted up with some strong adhesive glue or held in position by the use of nails. The cloth should be about two to three inches more than the size of the supporting board. The additional cloth is bent over in the back of the supporting board and then nailed tightly. The cloth should be a good quality flannel. It could as well be felt cloth, khadi (home spun cotton cloth - thick variety), towel cloth having fibres, or even a piece of rough blanket. The colour of the cloth should be dark e.g. deep green, deep red, deep orange or even black or dark grey. The deep colours are used mainly to provide contrast to the cut-outs.

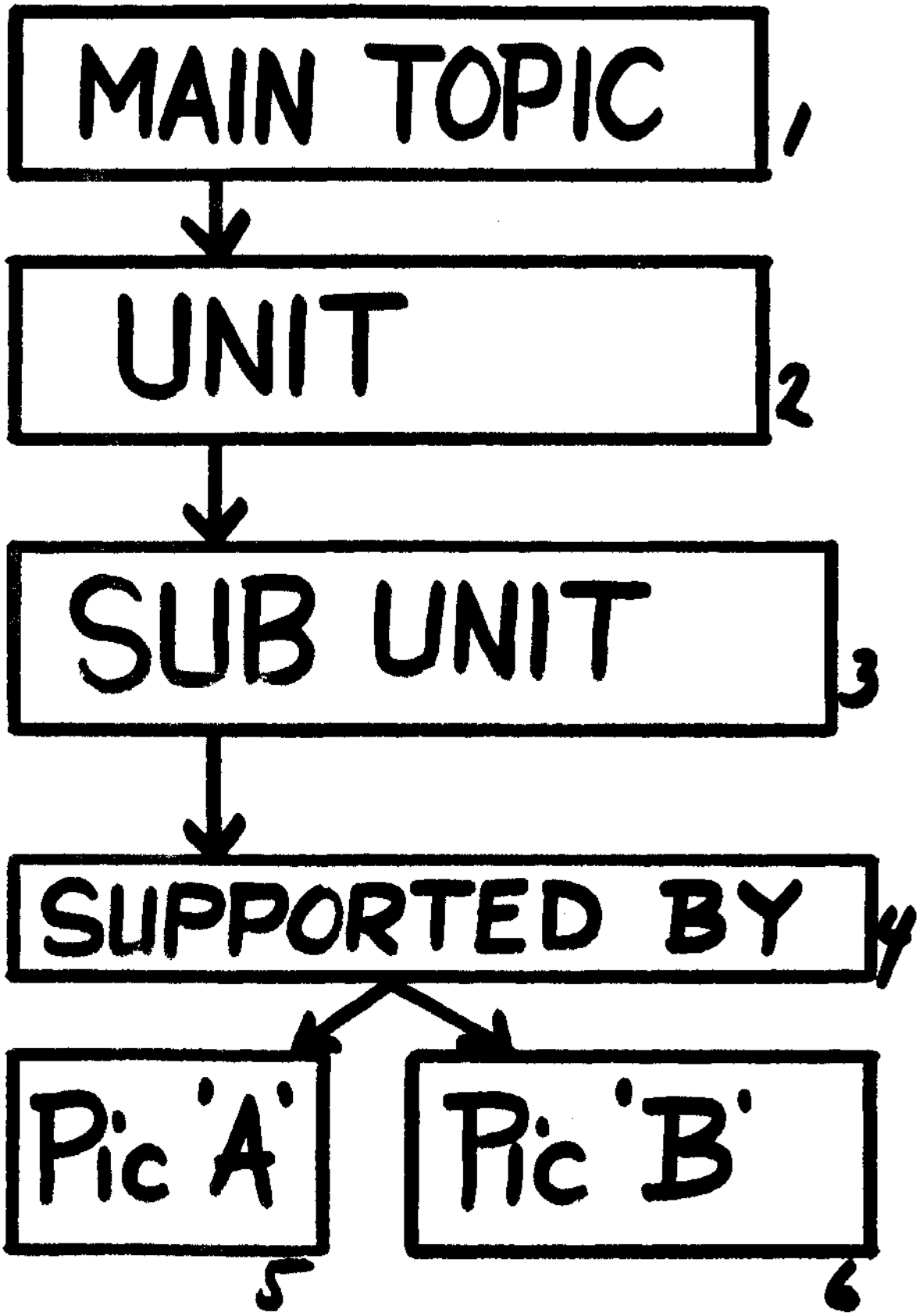
3. These two pegs will hold the supporting board in position. These pegs can be lowered depending upon the height of the teacher using the board.

4. A sturdy three-leg stand. The stand is needed because the supporting board has to be kept at a slant to put the flannel board to its best use. The stand is also used so that the board can be moved from one room to another. In case the slant or the tilt is not provided, the board might fall and also the cut-outs might not stay in position.

Flannelgraph

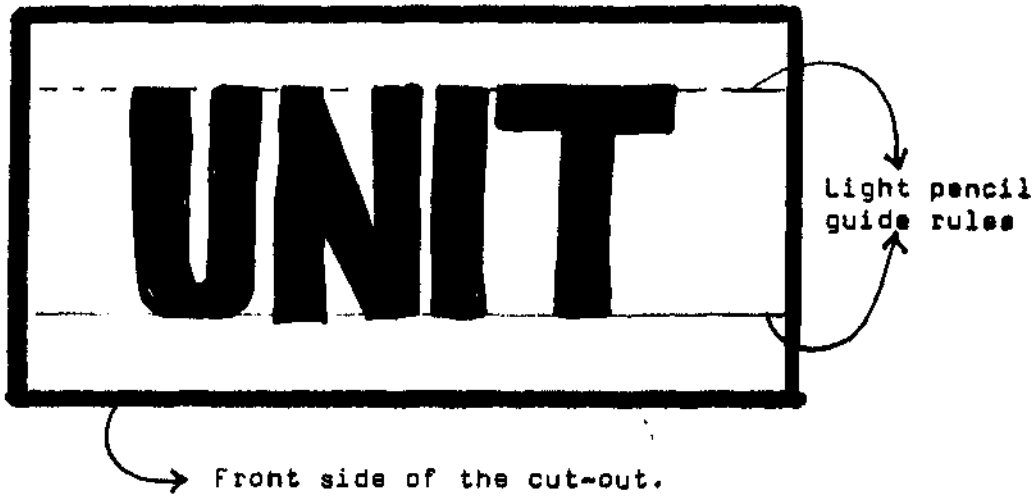
A rough layout of the flannelgraph - Scheme.

This layout or the Scheme should remain in front of the teacher. Along side should lay the cut-outs, their backside up, so that the teacher can look at the serial numbers and take them in an order to the flannel board for presentation. This Scheme will help the teacher to remain on track.



Flannelgraph

A



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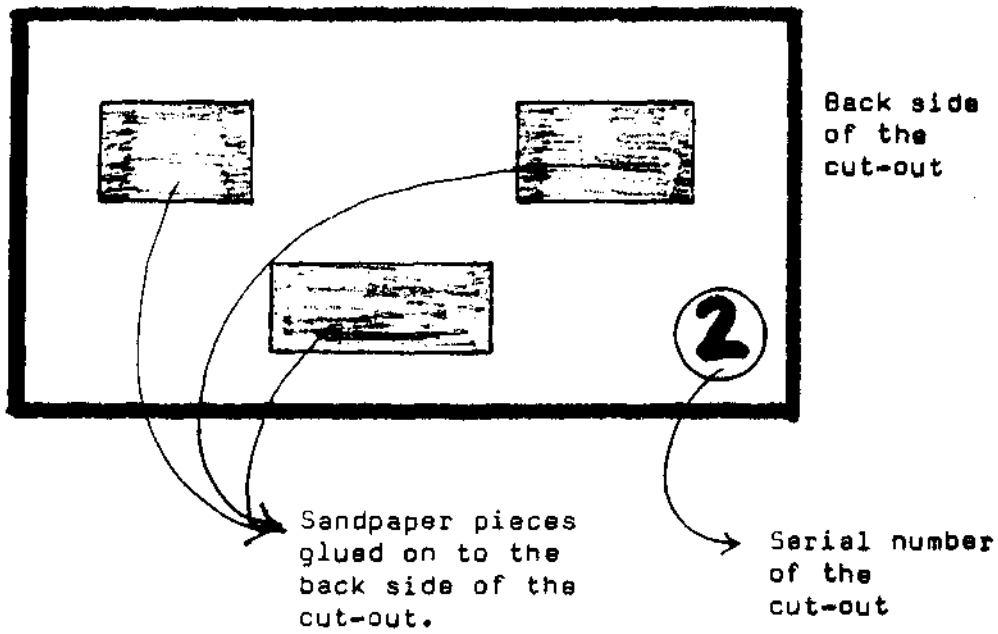


The lettering on the front side of the cut-out can be further improved by giving a darker shade outline to the letters. The dark outlines will also remove the unwanted distortions in colouring etc.

The light pencil guide rules should be erased before the use of the cut-out.

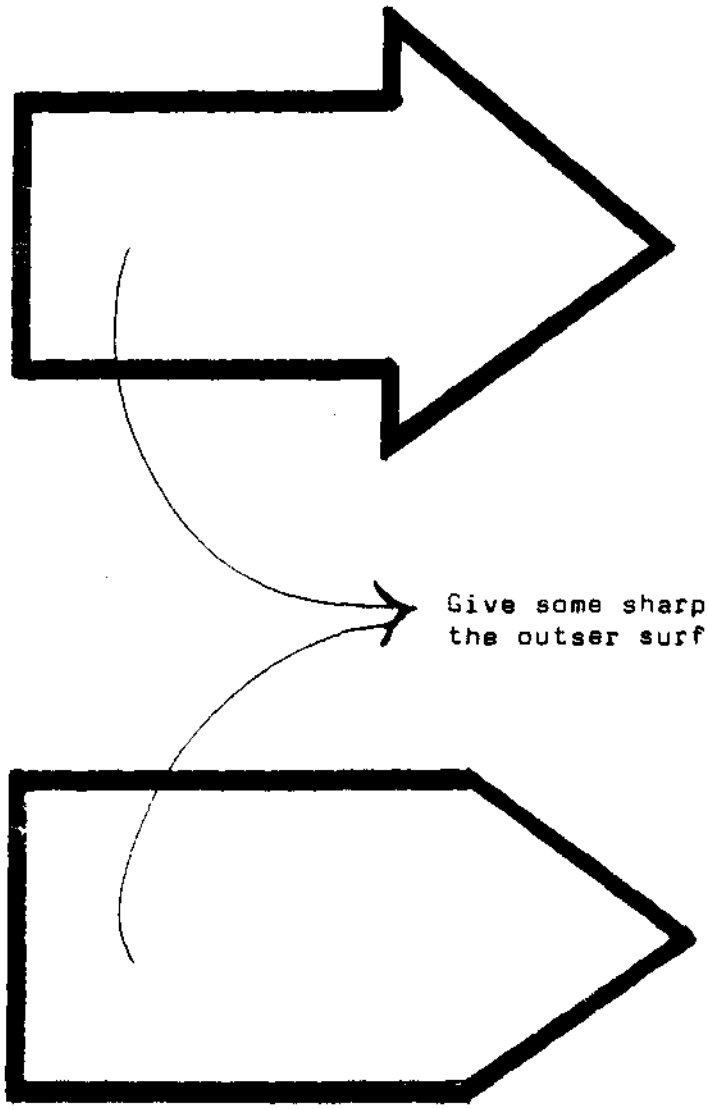
Flannelgraph

While writing on the cut-outs, the edges and curves do not get a sharp finish (see the encircled areas).

Such letters do not present a good picture. They appear to be shabby.

By giving a lining with a thick pencil or with a dark pen, you can smoothen the letters and bind them. Letters thus get a smart appearance.

Flannelgraph



Arrows can be cut in various forms. The above two forms are most commonly used. In order to cut several of the arrows, cut one, and then trace the arrows on one sheet of thick paper, and then cut them. Use different colours if the arrows are to be used at different places.

Do not keep the edges very sharp. Trim them a bit otherwise they will present a sad appearance after some use.

Presentation of the Material

16 When you are ready with the theme sheet and the cut-outs, you should not hurry up with the presentation of the cut-outs as soon as you commence your talk or discussion. You can build up your lesson gradually and when it needs emphasis then only you bring in the cut-outs. Do no represent the cut-out merely for the sake of demonstration, but use them as main-topics and discuss the topic thoroughly before you bring in the next cut-out. Do not be in a hurry. Presentation of the lesson demands a lot of tact and seriousness. You should be steady and firm in your approach to the subject. Do not get confused with the cut-outs, and also do not play with them.

17 The most appropriate manner of presentation is that on your table you should place the theme-sheet on one side and on the other, you should keep the cut-outs, facing downward. The highest number of the cut-out should be the lowest and the first serial number should be on the top of the heap. Remember, the back of each cut-out must have a serial number corresponding to the serial number appearing on your sequence sheet or scheme.

18 Do you know what you would be doing during the course of the presentation of the material. You will be informing, arguing and stimulating the audience.

i. Informing

(a) with explanation of ideas and facts, without stating your own point of view;

(b) describing the method to be followed, how to manage equipment, tools or instruments, etc.

ii. Arguing

(a) about own points of view;

(b) backing your own thesis.

iii. Stimulating action by means of

(a) the presentation of problems;

(b) the comparison and analysis of facts, processes, etc.

19 While handling a class and while making use of the flannelgraph, you do not have to a long talk. You can develop the topic by making use of sub-titles or catch-words, and by involving the participants in the discussion.

What is to be Achieved in the Construction of the Aid?

20 In order to make your flannelgraph to be effective, meaningful and useful, you should devote great attention to the proper techniques of its construction. While thinking of using the flannelgraph as a teaching aid you should try to achieve:

Graphic Unity: Express the central idea in a short clear and telling phrases;

Simplicity: Avoid unnecessary details, letters, or images or illustrations that are too crammed and crowded;

Visibility: Use adequate illustrations, that are visible to all from all corners of the classroom;

Proportions: Keep in mind the principles of proportions and perspective;

Adequate Use of Colours: Combine agreeable and harmonious elements. Try to achieve contrast as much as possible;

Balance and Harmony: Plan the display of the elements so that in presenting them they are well-balanced around an imaginary axis.

Advantages of Flannelgraph

* Turns teaching stimulating and dynamic.
* Increases participation in the class.
* Describes facts and operations in a progressive way.
* Centres the presentation on main aspects of the theme.
* Transforms abstract into objective ideas.
* Stimulates planning and makes teacher stick to a plan.
* It is adaptable for any type of learners.
* It is economical to construct.
* It can be prepared beforehand and permits re-use.
* Attracts and holds attention due to its characteristics and colours.
* Illustrations can be altered, replaced easily.

* It is hardwearing.
* Can be used in conjunction with tape-recorder.

Some Limitations on the use of Flannelgraph

** Difficult to use outside the classroom in windy conditions;

** Cannot be used as a chalkboard for writing;

** Visuals have to be prepared in advance.

Cautions to be Observed

*** Number the visuals (cut-outs) carefully;

*** Rehearse before use;

*** Keep the visuals and theme in one envelope;

*** Keep the flannel cloth clean and brushed up for better hold of illustrations by the flock or sandpaper.

Evaluation

21 When finished with the presentation and use of the flannelgraph as an aid, it would be interesting to ask YOURSELF whether the material shown:

- has been attractive?
- maintained students' interest?
- interpreted the ideas clearly?
- was adequate and relevant for the group? etc.

22 It would be still more interesting if you associate your audience also in the task of evaluating the usefulness of flannelgraph as an effective teaching aid. To obtain the reaction, comments and suggestions of your audience it would be adviseable if you developed some sort of an evaluation sheet.

Check List

FLANNELGRAPH - ON TRIPOD OR WALL, WITH PREPARED APPLIQUES (CUT-OUTS)

(?) Is the board slanted and positioned for easy writing/or placing the cut-outs;

(?) Is the stand stable;

(?) Does the flannel surface need to be brushed up;

(?) Have you planned the arrangements of your cut-outs;

(?) Are the appliques arranged in the order of their presentation;

(?) Have you got the Scheme ready;

(?) Do all the pieces stick on; and

(?) Are letters and figures clearly readable.

CHAPTER

04

FLIP BOARD

Introduction

01 You have been using the chalk-board and flannelgraphs in your teaching assignments. You might also have used the other display aids e.g., Bulletin Boards etc. There is yet another teaching aid which you could also use with advantage and that is, the Flip Board.

02 Just have a look at the terminology - flip board or the flip chart. Flip board here means the total aid which also includes the charts. A collection of pre-prepared charts on large-size papers, clipped together on the top to a display board, can be called the 'flip board'. It is not essential that the charts are pre-prepared. These sheets can be plain sheets on which you just write as you do on your note book or on your sketch book.In general terms, it is a large-size sketch book, which you use in the classroom.

Composition of a Flip Board

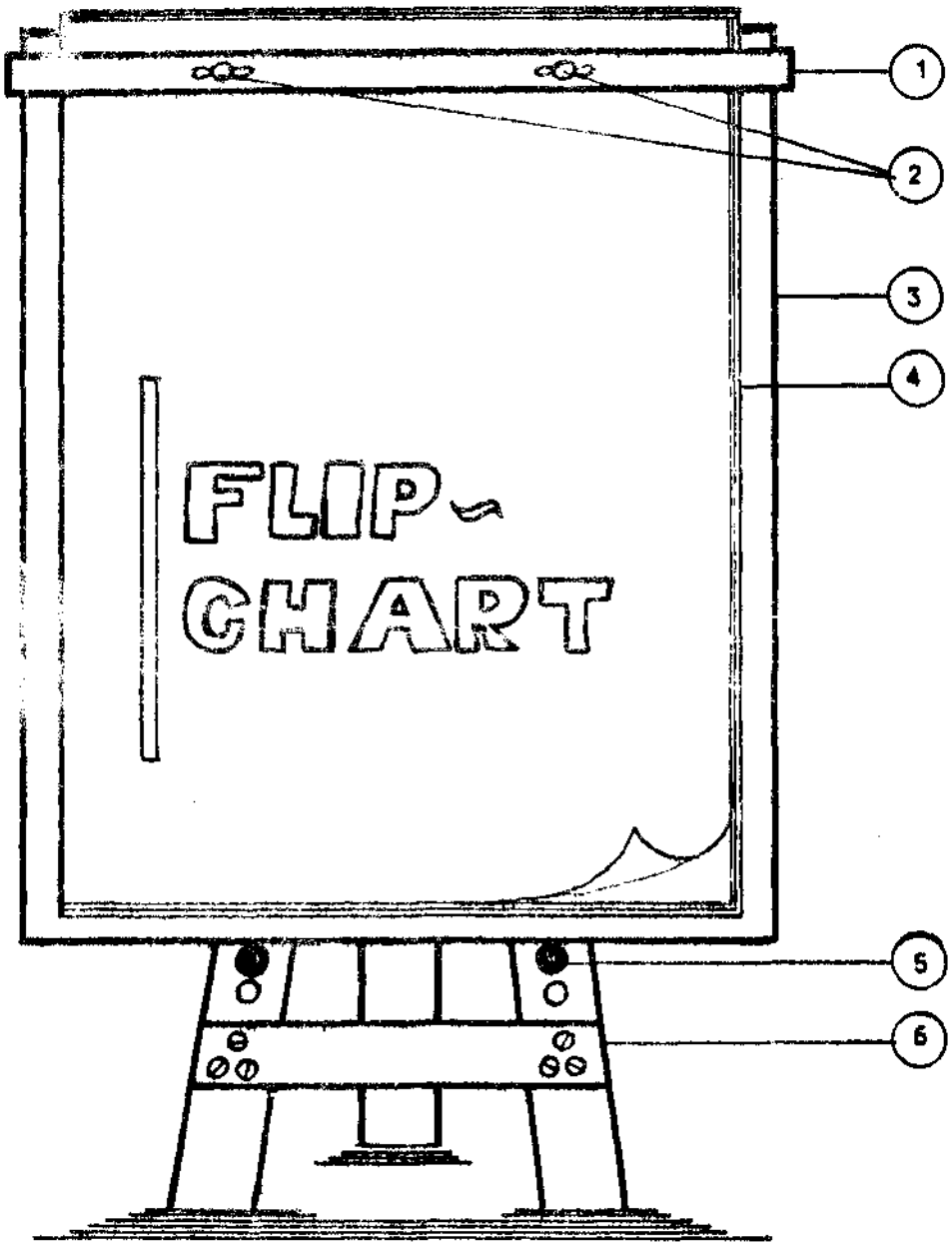
03 The flip board consists of the following:

- A supporting board
- Several large-size plain paper sheets
- A few fly-screws
- A strip of wood
- A stand for holding the supporting board
- A few markers, magic ink tubes or colour chalks
- A pointer or a scale
- A few 'R' clips.

04 A detailed description of these items follows.

Using the Flip Charts

05 Each chart is to be flipped over after use. One chart will discuss one point and to discuss the next point, you will have to turn the first one over and use the next one. Remember that your charts are arranged in a pre-determined order and fastened together on the top.


1
2
3
4
FLIP-
CHART
5
6

Description

1. A piece of wood. About 1½ inches wide, ½ inch thick and its length to be slightly longer than the width of the supporting board. The strip should be properly polished.

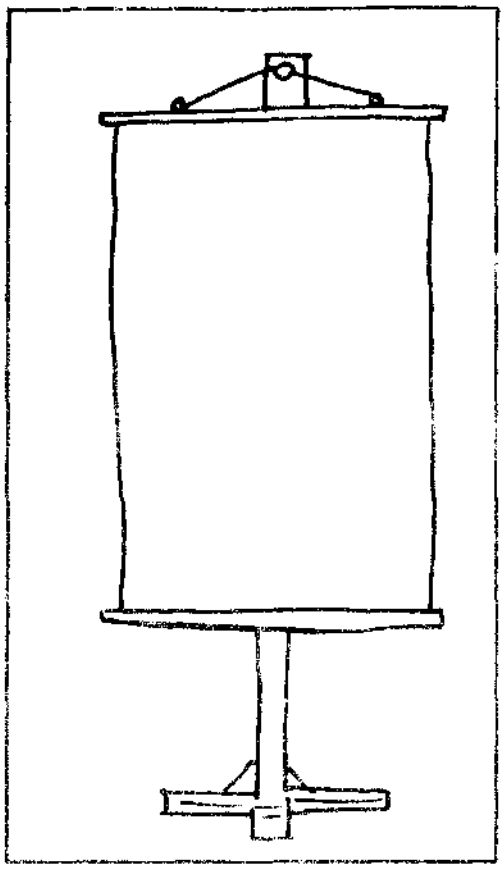
2. The strip should have two holes. The distance in between the two holes should be 1 ft. There should be two holes in the supporting board as well. The holes on the strip and on the supporting board should be at proper places and with equal distance. Two fly-screws about 1½ inches long should be used to hold the paper in between the strip and the supporting board. The screws should be able to pass through the supporting board, papers and the strip. Better used BRASS screws to save from rusting.

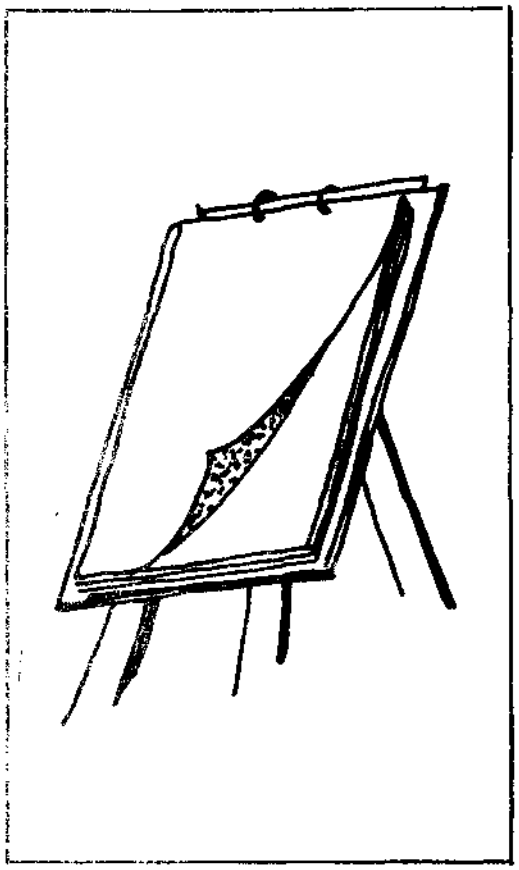
3. Supporting Board. Preferably of teak wood, about ½ inch thick, properly polished. Size to be about 4 ft high and 3 ft broad. One side can be given a paint of black/grey surfacer to be used as a chalk board, and the other side can be painted white or grey. Thick - ¾ inch - [illegible] board can also be used for this supporting board. The board should have two holes on the top in order to hold the paper and the wooden strip (refer 2 above).

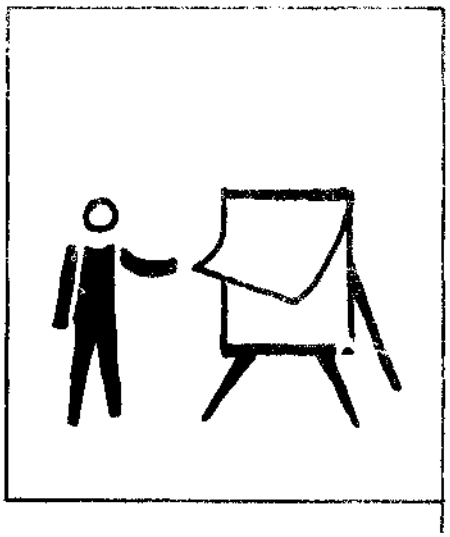
4. About 20 sheets of paper can be used at one time. Paper can be of any type - mechanical newsprint, white printing paper, light brown packing paper. Do not use very thin paper as the writing ink might damage the paper below. Avoid using spirit-based inks. Water-based inks are better.

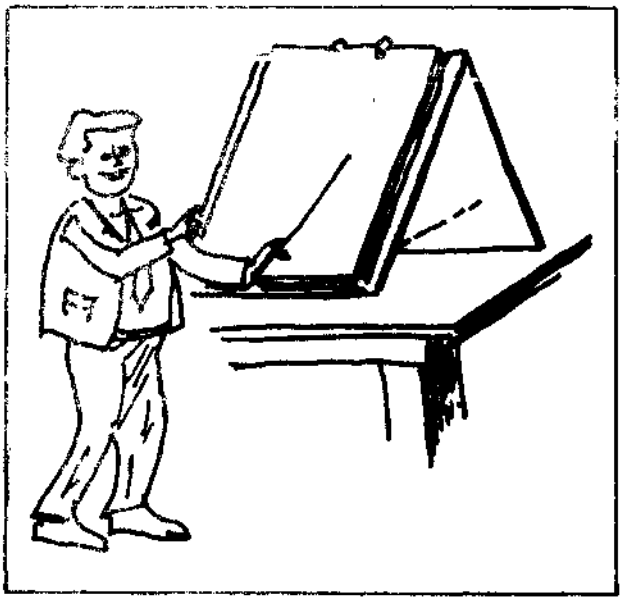
5. Two pegs will keep the board in position. These pegs can be moved upward or downward keeping the height of the teacher in view.

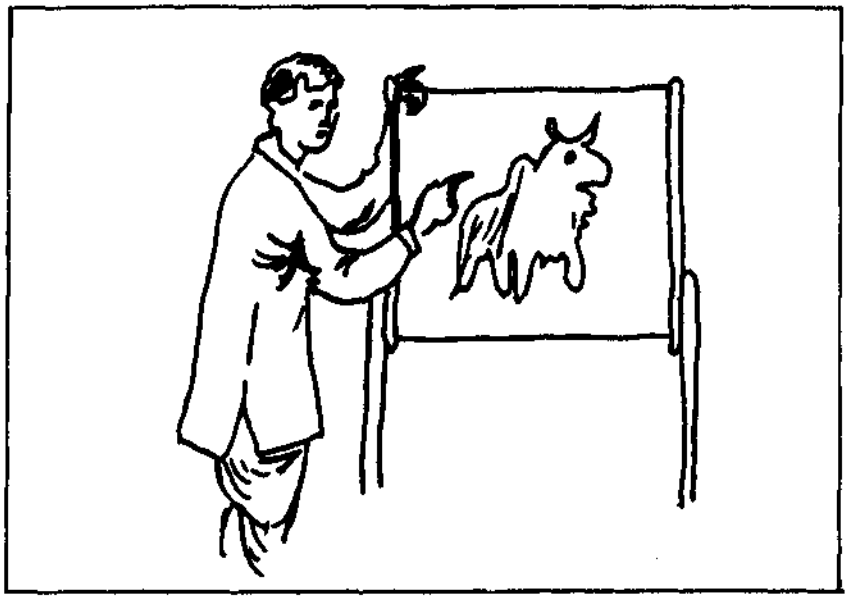
6. A three-leg chalk-board stand is to be used to hold the flip-board in a slightly slanting position. The stand should be sturdy. The third leg of the stand should have some kind of arrangement which will stop it sliding away. There can a chain or a hook which will get fixed up with the front two legs of the stand. It would be good if the feet of the stand have a small rubber strip attached to them.

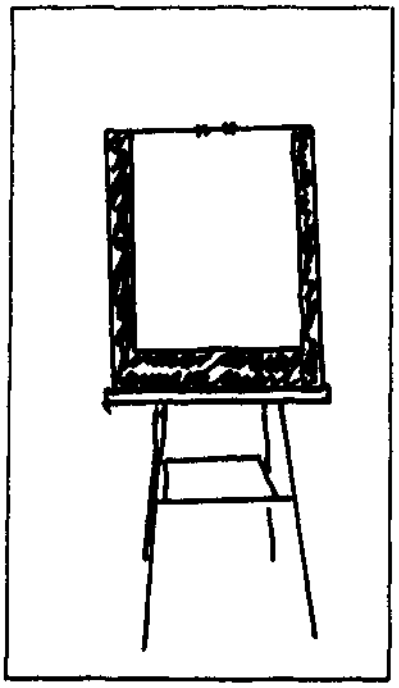


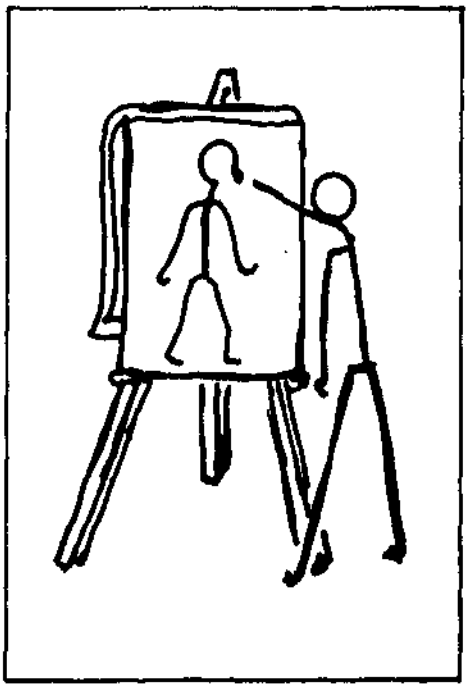












Use of Spiral Binding

In case you are sure of the sequence of your charts and in case you have the facility to have them spiral bound, you can get your charts bound in this manner. Because of the holes and the soft wire you will have the facility of turning over the charts easily.

This, however, becomes a bit expensive proposition, but once you are sure of the accuracy and permanance of the subject it would be good to have them bound in this fashion.

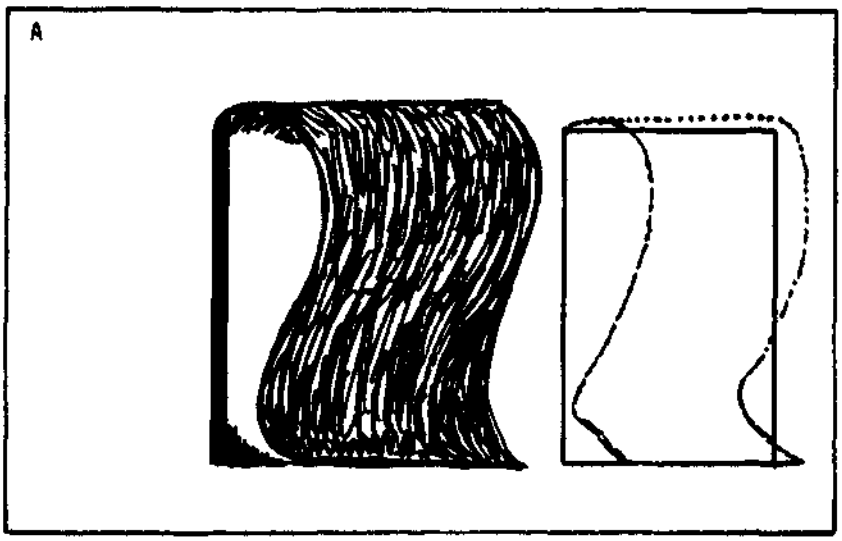
Mind you! Approach to the subject can be altered by the teacher and this might compel him to rearrange the sequence of the charts. If the charts are bound permanently, the rearrangement might become difficult. It is always good to be flexible in imparting education and training, because you are dealing with human beings and not with machines.

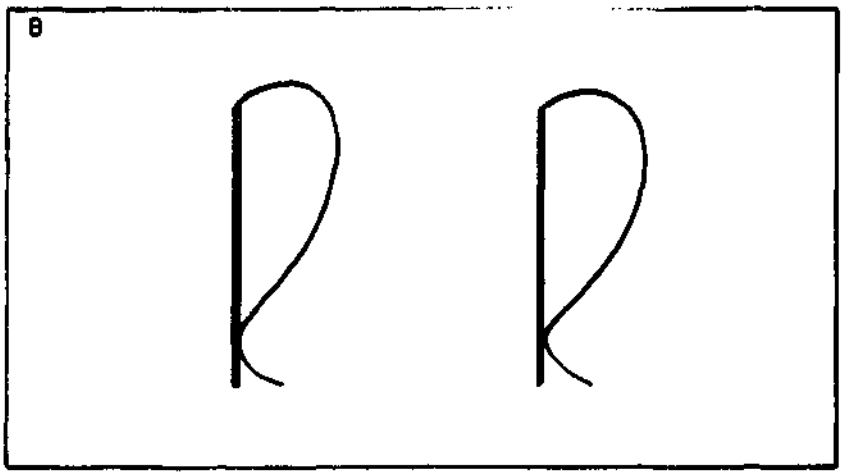
Use of "R" Clips

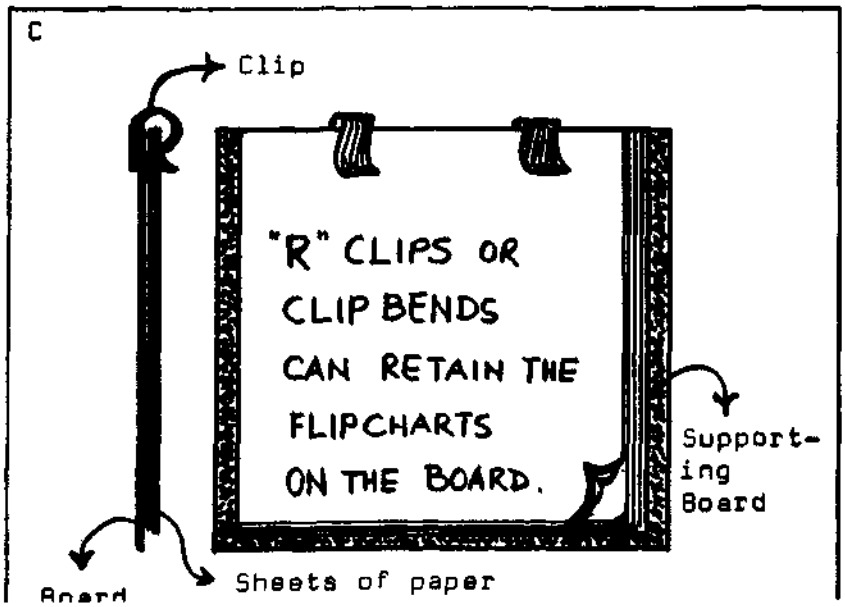
In case it is not possible to have the holes drilled or to locate the fly-screws, you can as well make use of the "R" clips or Clip Bends which are available with hardware shops or with the stationery stores. It is available in various sizes and you should try to select the largest one and preferably of stainless steel or of brass. Iron clips become rusty if not used often.

Figure A will give you an idea of the shape of the clip. This is shown as from the front side of the clip. Figure B is shown from the side of the clip.

The clip can be used at the top of the board, as shown in Figure C. It can hold about one dozen sheets of paper together with the thickness of the board itself. It is better to use at least two clips at one time. If the grip of the clip is light, then use three of them in a row.







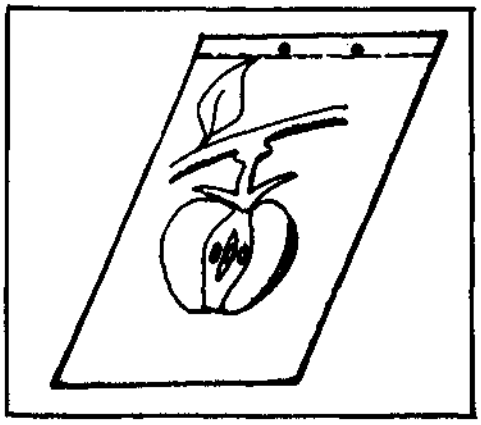
Making Flip Charts

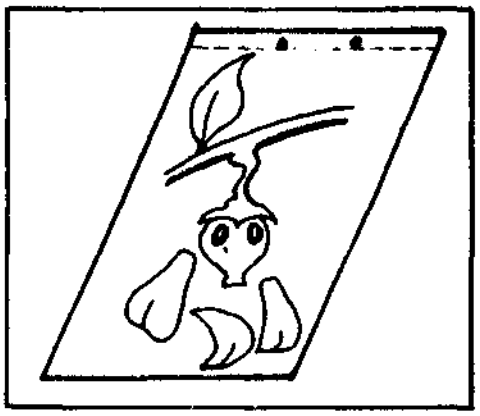
Sheets of paper proposed to be used in this case should preferably be of the same size, same thickness and same colour. This is essential to bring uniformity to the aid and to give it a proper professional status.

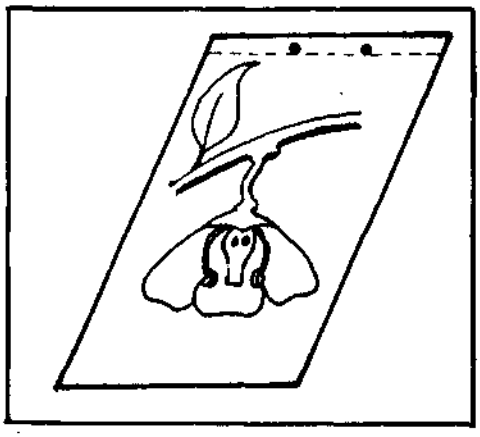
Charts should be drawn in sequence. It largely depends on how you plan to handle the subject. You should prepare the charts in that sequence. So, the first chart will be on the top and then below it the subsequent ones. And the last chart will, of course, summarise the topic which you have just discussed.

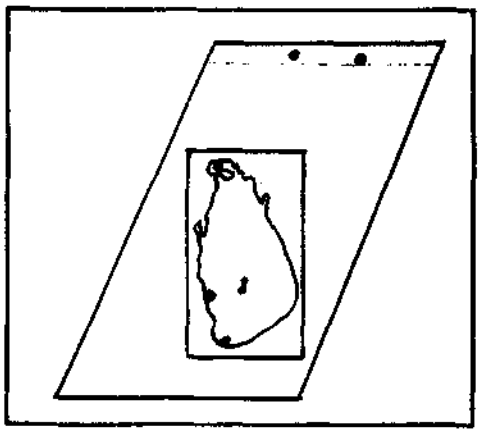
The charts should be done in a neat manner. They should be drawn in dark inks. The illustrations and lettering should be bold. Avoid using too many colours. Restrict the colour scheme to two or three. It is necessary to leave some margin on the top of the sheet, as this portion will get covered up with the wooden strip.

In case straight lines and circles are involved in your illustrations, then better make use of the drawing board and instruments. After all the sheets are prepared, put them together and bind them with the help of some string or staples. Each sheet should be numbered, so that you know the sequence of the sheets. Once all the sheets are ready then they should be mounted on the supporting









06 How will you turn the chart over? You can do it by hand if you are sufficiently tall or by making use of some pointer or foot-ruler. Remember, that the sheet of paper can be damaged if you turn it over with a pointed pointer. So you will have to be very careful in this regard.

07 Once you start using the flip chart, do not try to hurry up with the lesson. You are discussing the topic and not demonstrating what you have drawn or written on the flip sheets.

08 Turnover charts (or flip charts) are a good means of maintaining interest during the course of a training period. The knowledge that more material is yet to be presented:

- Acts as a stimulus to thought;
- Helps to retain attention;
- Encourages the viewers to anticipate the next step, thus stimulating and encouraging audience participation.

09 It should be remembered that aids which create audience anticipation help people find their own answers, and contribute to the best possible teaching technique.

Advantages of Using Flip Charts

10 Some of the advantages are given below:

* Attracts students' interest
* Keeps a sequence of the topic
* Helps the teacher to present his subject in an orderly manner
* Helps to fix the contents of its images
* Allows for quick synthesis of the topic
* Easily constructed - students can also help
* Easily operated
* Economical
* Does not need electricity or darkening of the room
* Good for explaining a story which needs only simple outlines

* Useful for one-time briefing which does not need any elaborate preparations
* It is quick, avoids dust, mess and time in erasing
* Sheets can be returned for revision and summarisation
* It has portability.

Some Limitations

** Although the sheets are large yet the writing space tends to be limited;

** Presents some transportation problems;

** Dramatic effect is limited;

** Storing is difficult as curling takes place due to rolling.

Cautions

*** Conceal the top of the chart with a blank sheet until ready for use;

*** Turn the sheet over carefully otherwise it might tear and cause disturbance in the class;

*** Stand on one side of the flip-charts while using them. If you stand in front of the charts, the audience may not be very happy with you;

*** When finished with the talk, roll up the pages 'top-side out' so that when you use them next, the bottom of the sheets will not curl towards the audience;

*** Always keep some felt pens (markers, magic ink tubes) ready as they tend to dry up fast - so check the markers before use;

*** Keep the markers with their tops on;

*** Draw illustrations in light yellow pencil in advance if these are to be presented in the class - this will save time and also you can demonstrate a bit of your confidence to your audience!

Summary

11 Flip board is one of the very useful teaching aids that a teacher can use. It replaces, to some extent, the slide projector, flannelgraph and the chalk board. It consists of a supporting board, a few plain sheets, fly screws, strip of wood, R clips, spiral binding, a pointer, and a few markers. It is very economical and not much of skill is needed to make and use them. Although the aid is mostly on paper, it can be prepared on polytheme sheets as well or even on cloth.

CHAPTER

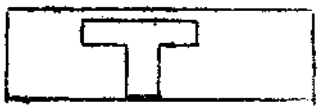
LETTERING TECHNIQUES

05

Introduction

01 In audio-visual materials LETTERS and WORDS play an important role. They make the visual lively, bold and effective. Audio-visual aids, without the use of appropriate letters, are like a beautiful lady without ornaments. Letters add to the beauty and grace of the visuals.

02 Letters should be clear and bold and written in attractive fashion and with appropriate colours. Letters can be formal or informal. These are also called free-hand letters and capital letters.

Formal Letter	
Free-hand letter	

Freehand Lettering

03 There are many good mechanical lettering methods which are both quick and efficient, but there are occasions when such equipment is not readily available and when it is necessary to produce an aid with utmost speed. This alone is sufficient justification for a time being spent on the development of an individual technique.

04 The tools available for freehand lettering may range from simple pens made from strips of bamboo cut to a wedge point, to round and broad-tip lettering pens and the felt-pen variety.

05 The technique for using each type of pen is similar, but the felt pen tip permits the fastest work. A felt tip pen with a wedge-shaped tip is the best type for lettering and should be made with the cut angle of the tip uppermost. The sharp edge of the tip is presented to the paper, and this will produce the neatest line. The pen should be held with the point at an angle of approximately 45 degrees to the guidelines.

06 Light pencil horizontal and vertical guidelines should be drawn for all forms of freehand lettering. Although the vertical lines may not be in the exact place required for any particular letter, it is in practice much easier to draw a truly vertical line if there is another vertical line nearby. Wherever possible, letters should be formed from a series of downstrokes. The letter "S" for instance, could be drawn by making three downstrokes. Holding the pen at the angle described will help to give the letter character and style.

Capital and Small Letters

07 We tend to recognise words by their general shape as much as by the order of the individual letters. It is for this reason that a row of capital letters is more difficult to read than words composed of small (lower case) letters like those used in this paragraph. If extensive and continuous use is made of capital (upper case), reading can become tedious. In visual aid work, capitals are more appropriate to captions and main titles than to long phrases.

> A ROW OF CAPITAL LETTERS IS MORE DIFFICULT TO READ than words composed of small (lower case) letters.

08 The practice of lettering with a felt pen need not be expensive. Newspaper is ideal for this work and, if an old newspaper is turned so that the columns of print are horizontal lines instead of vertical, the edges of the columns and lines of print may serve as horizontal and vertical guidelines. These may be supplemented by pencil lines to give a measure of control over the size of lettering. A little time spent in practice is rewarding, both in terms of speed and neatness. For the best results:

- ** Use lightly pencilled horizontal and vertical guidelines;
- ** Choose a wedge-shaped felt-tip;
- ** Hold the pen with the tip at an angle of 45 degrees; and
- ** Form all letters with a combination of downstrokes.

09 Flo-master felt-tip pens are admirably suited for this purpose, and are available in both disposable and refillable form in many parts of the world.

Stencil Lettering

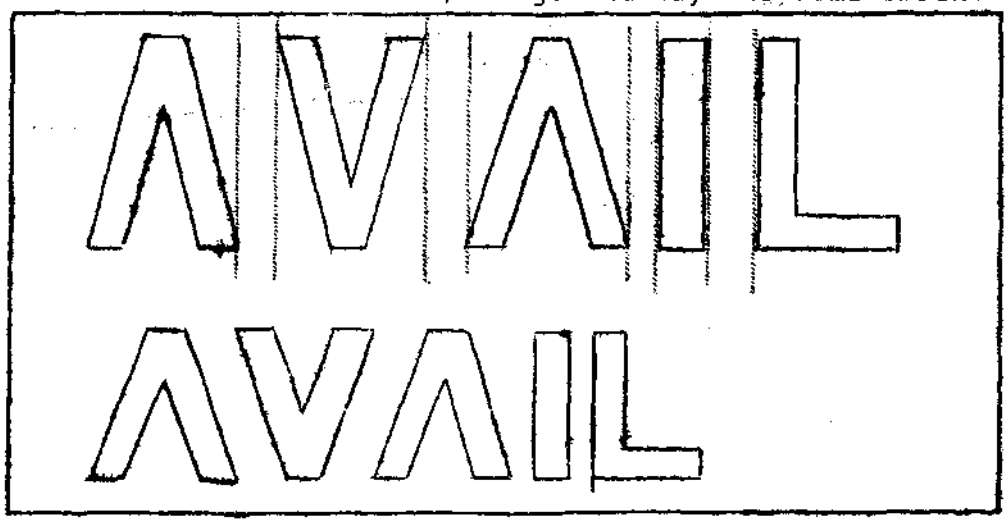
10 Brbsh stencils are the ones where a stencil is used to obtain the impression of the cut-letter with the help of a brush which is dabbed with ink or paint. The Econasign system is also used in lettering. A special guiderule is used with the transparent stencils, and a brush is charged with semi-dry water colour. A variety of sizes and styles of lettering is available. This stencil is quite easy to use and is capable of giving results of a very high standard.

11 Pen stencils. There are many pen stencils systems, and one of the better known is the UNO system. The special pen uses Indian ink, and the tubular tip is an exact fit in the pen guide. Again, a variety of sizes and styles is available. The corresponding pen and stencil each bear a number, and must be used in coordination. Cleanliness of both pen and stencil is an important factor, and it helps to maintain a high standard of work.

Size, Layout and Spacing

12 Normal script on a chalkboard needs to be between 5 and 6.5 centimeters in height. No such rule is possible for stencil and freehand lettering, for clarity is dependent on style. The effectiveness of work of any particular size must be determined by trial and error.

13 For the purpose of illustrating the techniques of spacing, two examples of lettering are given. The first shows mechanical spacing. Exactly the same amount



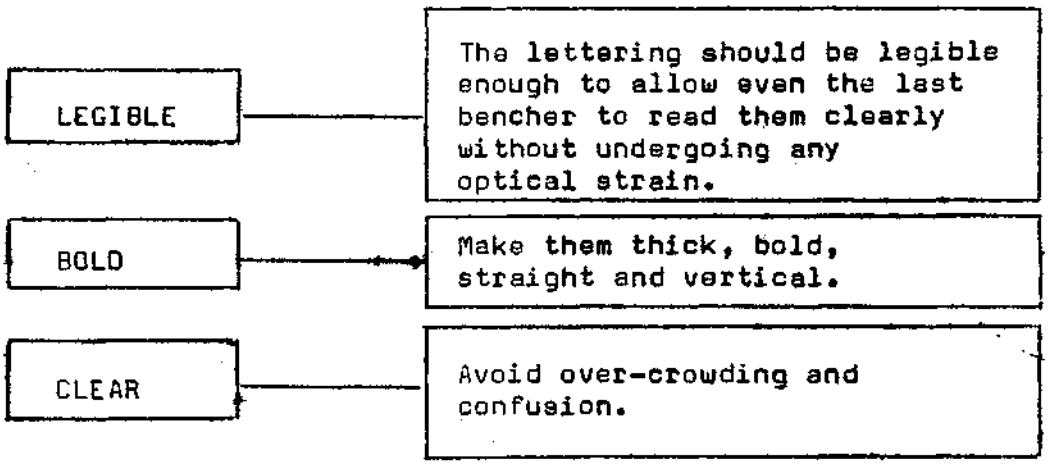
of space is allowed between each letter, and in some instances the space appear to be larger than they really are. The second example shows the optical spacing, giving a much better appearance to the work. With only a minimum of training involving careful observation for a short period, the eye can become a better guide to correct spacing than a whole collection of complex rules. It is quite easy to develop a critical faculty in this direction and, once developed, it is equally easy to observe frequent errors of spacing which appear even on many commercial signs and notices.

Caution

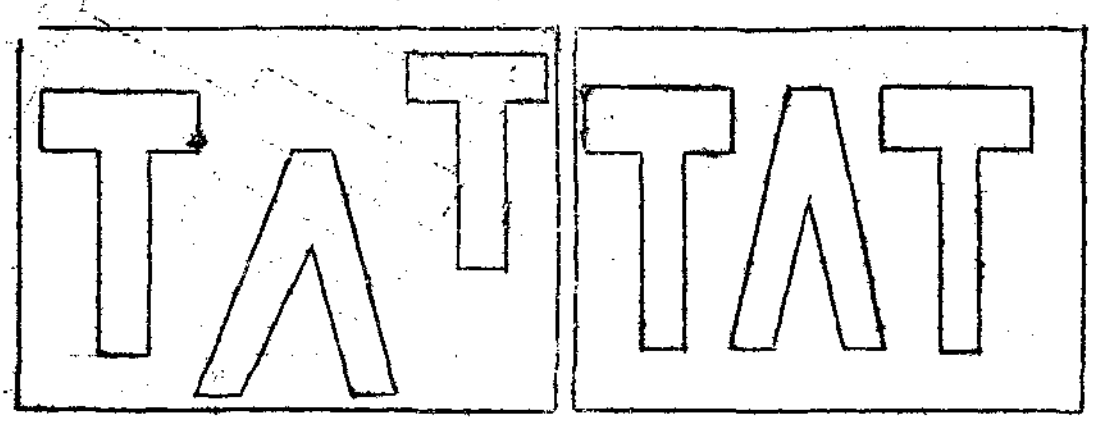
14 Please avoid extremes. This includes tall-thin or short-fat letters, and any form of exaggerated or unfamiliar style. Such lettering may be of occasional interest, but it is certainly not easy to read. Vertical lettering is not easy for the eye to scan. It can lead to misreading and misinterpretation; it is tedious and best avoided.

Lettering as an Integral Part of a Visual

15 Lettering forms the reading part of visual aids. They should, therefore, be:

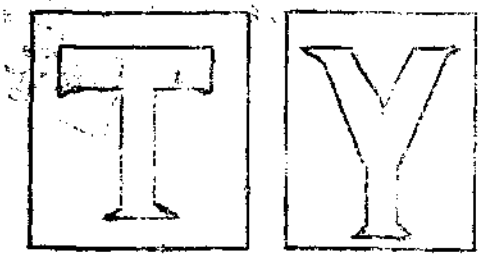


16 Even if a beautiful and most effective illustration or a photograph is used in the visual, it would get ruined if hotch-potch lettering is included in the visual aid. Lettering, if properly executed, will make the illustration/photograph talk and the message gets communicated most effectively and fast. Ornamental lettering does not go well with serious type of visual aid. These could be used for 'lay' posters or 'funny' announcements. For educational materiel, it is always good to use formal and bold lettering.



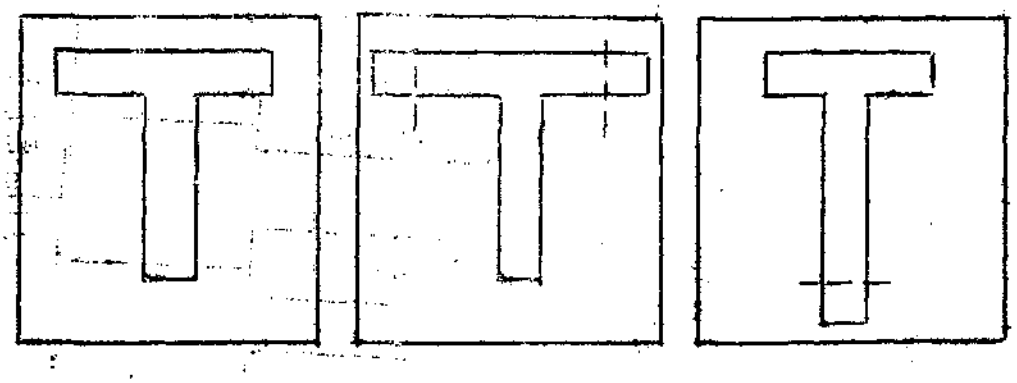
17 In the first illustration, letters are arranged unevenly and make reading an exercise, while the second illustration allows a clear and quick reading. Therefore, do not confuse your clients by using unevenly arranged letters.

18 Also avoid fancy letters. If you wish to write 'A', make it A, and not an ornamental A.



Avoid serif too. They unnecessarily consume space and distract attention.

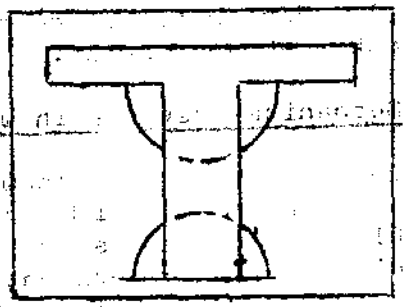
19 Make your letters as balanced as possible. Its arms and legs should be within reasonable frames. Make your letters as natural as possible.



20 In the three illustrations of 'T' above, the first one is balanced. The arm and leg of the first two are longer than the proper size. Keep them as normal as possible.

21 Determine the height of the lettering in a given space. If the lettering are 3" high, the balanced thickness shall be about half-inch and the total width of certain letters such as B, D, G, R, etc. shall be 2" wide. Certain broad letters like M and W shall be 2½" wide.

22 The lettering should be firm and properly placed. The vertical capital letters should have a 180 degree base and the upper boundary line also should run parallel to the base. It is always a pleasure to look at straight and firm letters which are thick enough to attract the attention.



23 If you are actively involved in graphic work and you would like to give your visual aids a professional look, it is desirable that you must practice regularly. Study carefully the construction of letters and you will learn a great deal.

How to Write Letters?

24 The best tip would be to do as much free hand writing as possible. Make use of used newspapers, ruled papers and good handwriting exercise note books. Use various types of pens and pencils including the felt-tip pens. Write capitals, small ones, slanting and straight letters. Write your own name, the name of your organisation and the like. Keep the arm relaxed - no tension of any kind anywhere.

25 Free-hand lettering is done without the help and use of any mechanical measurement and device. Simple ruler can be used for drawing base lines. The devices are the following:

- foot-ruler
- pair of set-squares
- paint
- ordinary pencil
- brush
- crayons
- felt-tip pens
- ink tubes
- pencil eraser
- old newspapers
- ruled note-books

26 Free-hand lettering does not, however, mean that you are completely free to draw or write anything. There are some restrictions, of course.

27 First, draw parallel lines with pencil. Secondly, determine the placing of the lettering with a soft pencil. Thirdly, hold your hand steady as you practise a felt-tip pen. Fourthly, do not rotate your fingers. Move your arm only. And then, start with simple letters and of different curves. And then, go on and go on. Practice makes a man perfect.

Mechanical devices in writing letters

28 As mentioned elsewhere in the above, some simple mechanical aids are available for writing letters. Planograph letters are cut out stencil guide on plastic plates. Draw a horizontal pencil line on paper and set the stencil guide. Fill up the scriber pen with regular Indian ink. Trace each letter, space between letters by the eye. Other lettering aids are Ecunasign, Uno-Stencils, Card or Metal cut-outs, Rapidograph, Letraset etc.

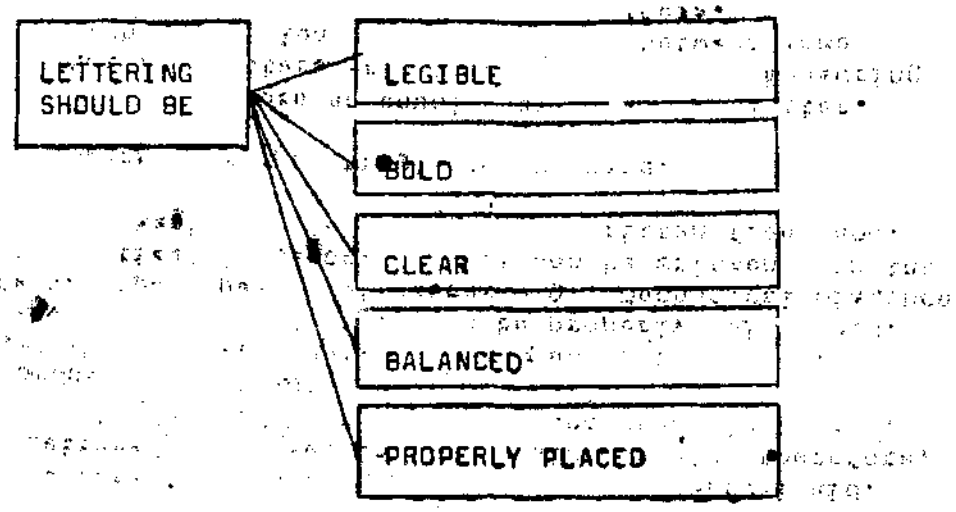
Conclusion

29 Lettering in visual aids is of great importance. They add to the grace of the visual aid. Letters should be clear, bold, straight and thick enough. Avoid overcrowing the visual with lettering. Do not write long phrases on a visual aid.

30 The last, but not the least, maintain a proper distance between the letters. Use mechanical distance where needed and absolutely essential. You should employ the technique of Optical Distance. And, please, practice and practice. This will help.

S U M M A R Y

31



32 Letters form an important part of any visual aid. Letters to be used in visual aids should, therefore, be: Legible, Bold, Clear, Balanced and Properly Placed, and properly constructed keeping in view their constitution e.g., single-tier, three-tier letters. Distance between letters should be properly maintained. There are two types of distances e.g., Mechanical Distance and the Optical Distance. Letters can be written with the help of mechanical devices or can be written free hand.

33 Lettering is 'printing' done by hand.

- Do not measure an equal space for each letter. Not all letters are of equal width. The measuring method will leave too much space between some letters and not enough between others.

- Lettering can be made to fit almost any size of space - by extending, condensing or spreading.

- Use script for variety or emphasis only.

- Do not run your lettering to the very edge of the paper. Space is very important - make your border wide enough.

- Space between lines of lettering, allow one-third of the height of a capital letter for the space. There should be enough space between words so that they are not crowded.

- Avoid monotony, vary sizes of letters also the width of the lines.

- Lettering that is too uniform won't attract attention. Long phrases in capitals are difficult to read. Use capitals and lower case.

- Words can be slanted - but slant them UP and not DOWN. Words can be arched too.

- Ornate styles of type should be used for emphasis only.

- Not more than three different styles of lettering to be used on posters or charts.

34 Letters written on the charts etc. displayed in front of you look to be easy to be made. They are no doubt, easy - but then try!! First attempt will be hopeless; second one will be an improvement over the first one and so on. You will have to devote a lot of time on practice. Practice is important and that is the secret.

5/10-58

SOME EXAMPLES

Koperasi FAT & THIN

CEYLON '80

Ornamental - inflated

LEARNING Slanting

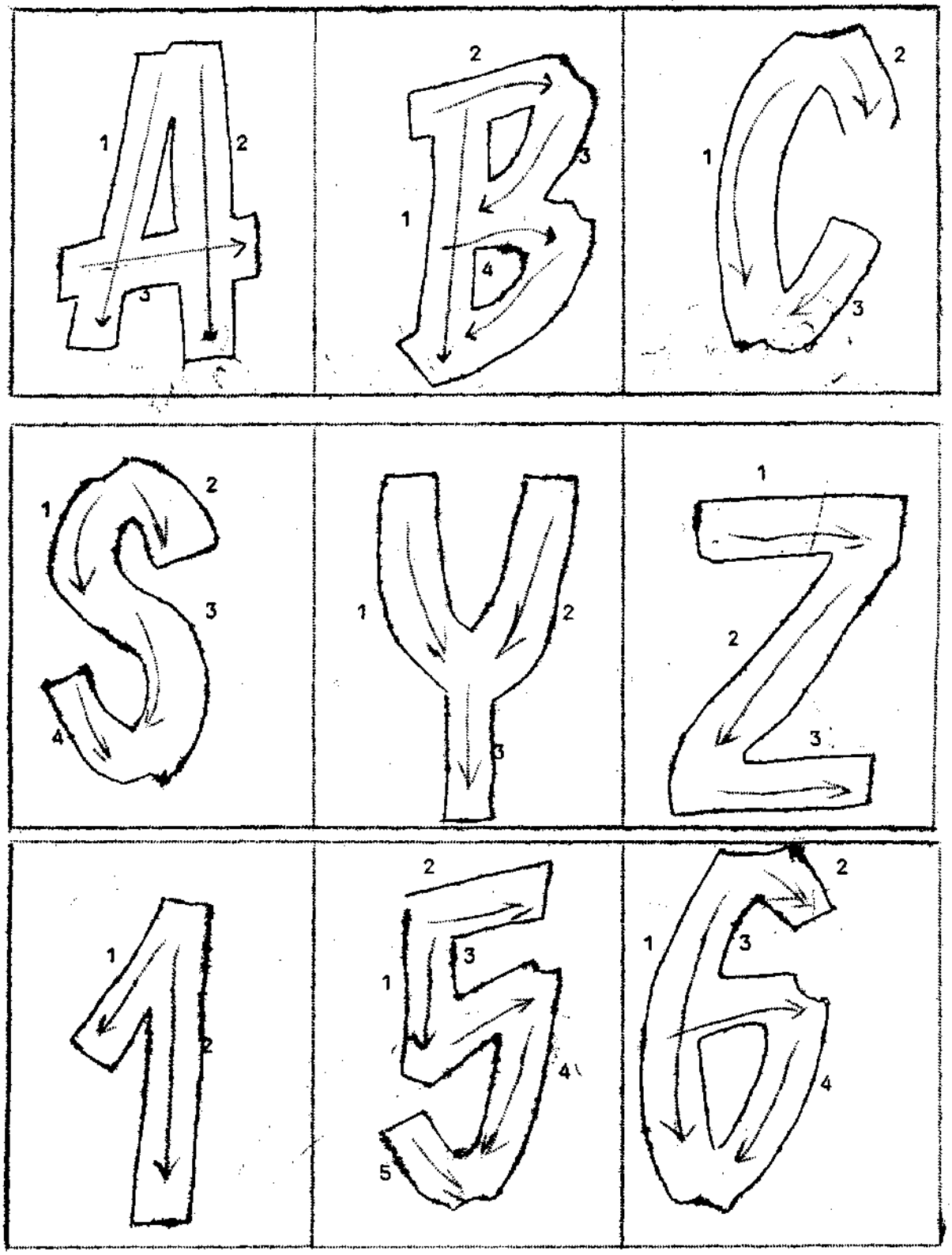
LEAVE ME Slanting

Please teach

Straight and firm

CO-OP

Arched words



(figures 1, 2, 3 etc. represent the direction of the stroke. Note the downward trend of the stroke. The felt-tip pen is used here.)

5/12-60

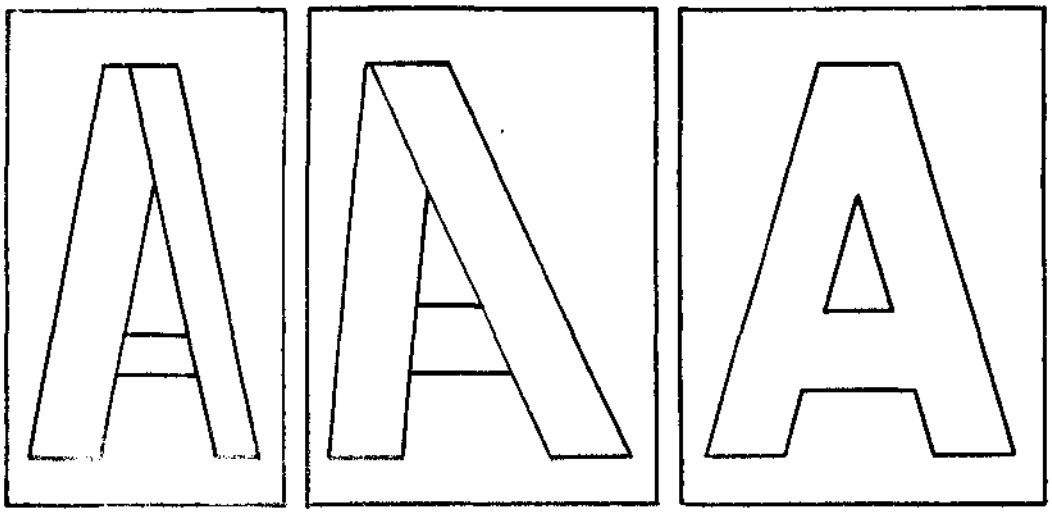
EFG

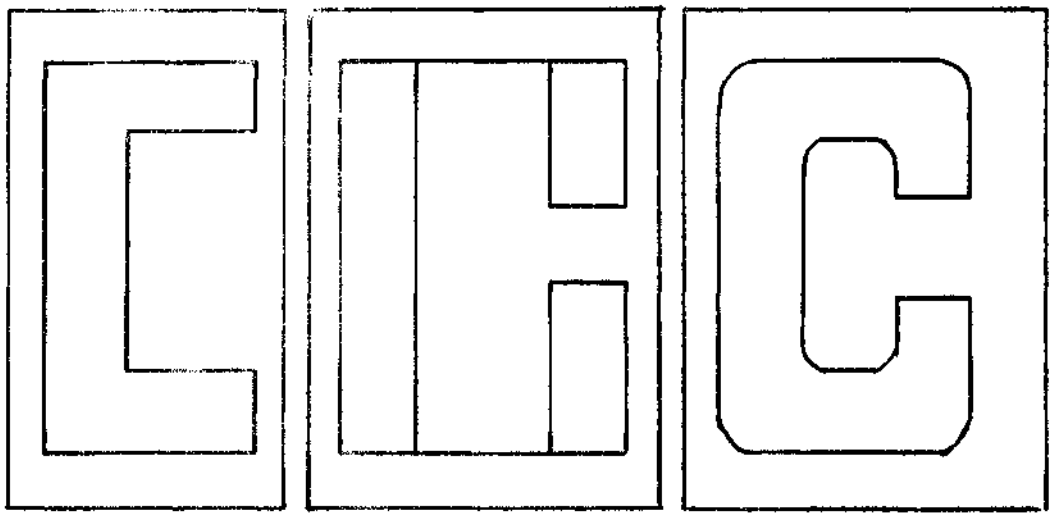
JOE

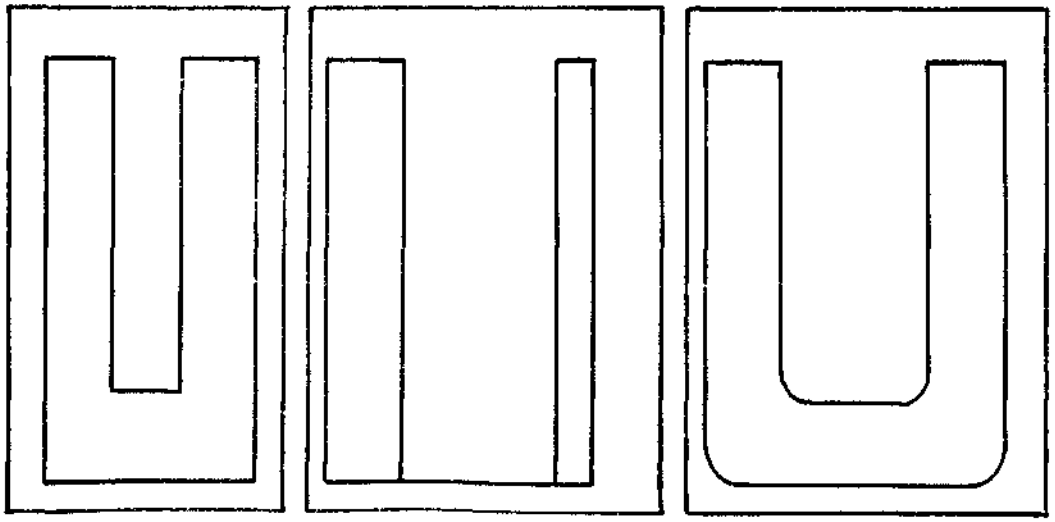
JOEY

NUTRI

ABC







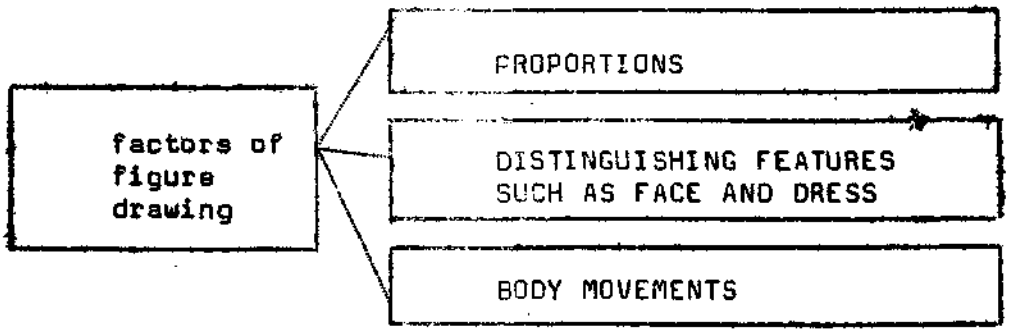
DRAWING SIMPLE FIGURES

CHAPTER 06

Introduction

01 For all visual aids you cannot obtain ready-made illustrations or photographs. Even if you are able to collect them, they may not be relevant to the local conditions. It would, therefore, be essential that you, as communicators and teachers, should be able to draw some simple figures to convey your point of view to the audience. You need not be an artist to draw a complete picture, you should, however, be able to draw some stick-figures etc.

02 Simple drawing or stick figures to represent people are another means of illustrating ideas. There are three major factors to consider in drawing stick/simple figures:



03 In order to combine these factors properly, it is always recommended that some basic principles should be followed. With the understanding of the principles, it is also essential that some practice-work is also done. A more frequent practice will make you perfect.

04 Now let us do some practical work. Even though you are not an artist, after some practice, you will be able to convert yourself into an artist, who will be able to communicate the point of view in a proper fashion.

Material that you Need

05 To begin with you need the following material:

a. A plain paper;
b. A 50 cent coin
c. A pencil (or a pen or a felt-tip pen)

06 Proportions in a figure (human figure, to begin with) are very important. Follow the following process and you will understand the importance of proportions in a human figure. Mind you, the human body is divided proportionately, and in drawing human figures, these proportions have to be maintained.

i. With the help of the 50 cent coin draw seven circles, one underneath the other - just as in the illustration. Draw light pencil dotted lines at points 1-6 on the coin outlines. Now number the coins as is done in the illustration. These are the basic proportions of a human figure.

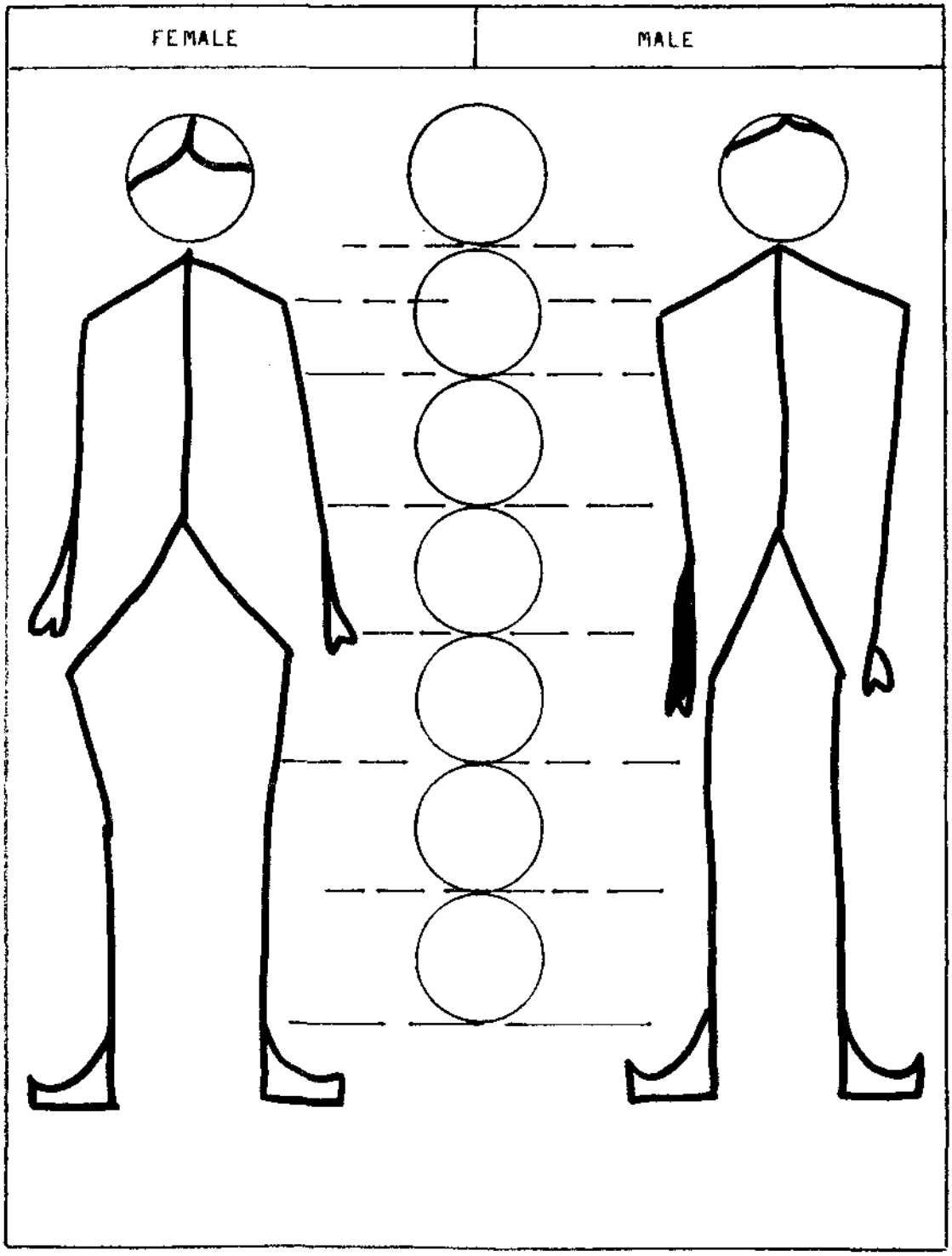
ii. To the side, use the same coin to make a circle for the head. Draw the rest of the figure in line with the proportions given. Please notice that:

- the shoulders come at point 2,
- the bend in the elbow at point 3,
- the hands and hips at point 4,
- the knees at point 5, and
- the feet at point 6.

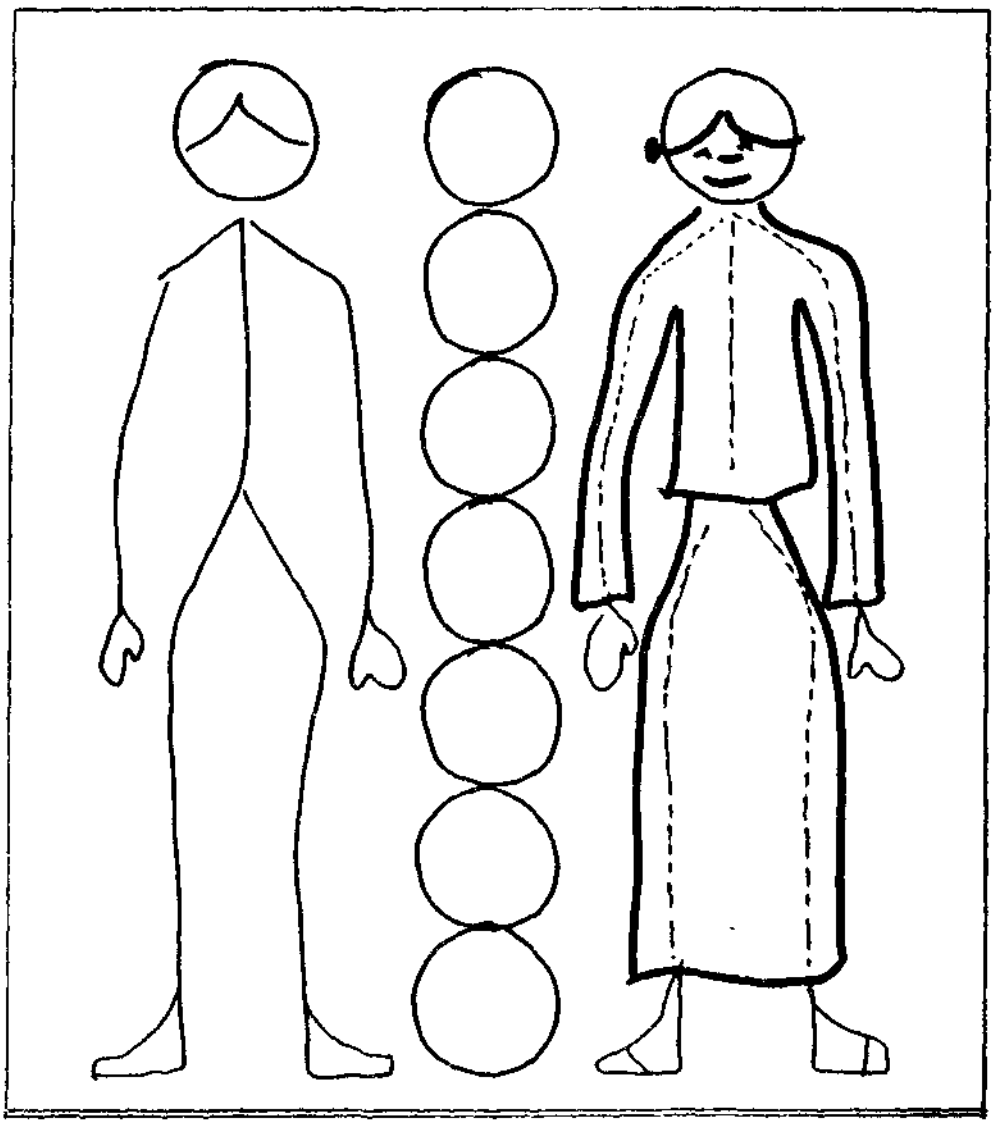
iii. Now repeat this same process to make a female stick figure. Notice that the females have narrower shoulders and wider hips so you will make some adjustments.

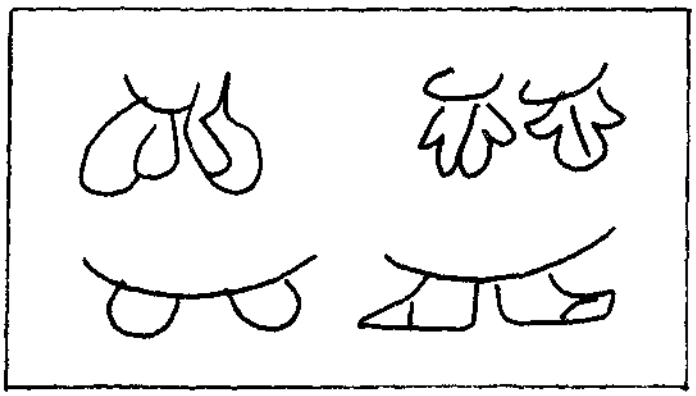
iv. Now try drawing a female figure next to the one you have just drawn, only this time do not use the coin. Try to judge with your eyes the correct body proportions.

v. Once you feel you can draw these figures in the correct proportions, work to pick up speed. You may want to eliminate the middle line extending from the head to the hips. You also will develop your own style for hands and feet. Make these as simple as possible. Do not try to show the details in fingers, nails, and thumbs. Try to keep the figure details-free.


FEMALE
MALE

6/4-65





vi. Now go back and add the finishing touches to make your figures more realistic such as:

- hair, ears, headcovering
- pants and shirts (for males)
- dress or skirt and blouse (for females)
- erase centre lines and fill in with colours appropriate to your area.

07 What do you get now - a properly proportioned human figure - one male and the other a female figure. Please try this exercise five times. You will notice that you will be able to work without the use of circles. If you keep it up, you will pick up speed as well. Then try one female figure on a piece of paper and a male figure on another piece of paper.

08 Another effort - but this time you enlarge the figure, say twice the size. And also add some major details in hands, feet, face, hair-style, eyes, ears and so on. After some efforts you will be able to draw a complete figure without any extra effort.

Caution

09 One point of caution: Do NOT keep you hand and fingers in a tense situation. Allow them to move freely. If you are stiff, the lines would be distorted and you are likely to smudge the paper. No tension, please.

Facial Expressions in Simple Human Figures

10 What we have studied so far was the proportionate break-up of a human figure - male and female. Besides, the main proportions of the body, there are proportions in each part of the body of a human being. Are the eyes bigger than the nose, or the ears? Do the hair cover the entire head or only some part of it? Is the nose positioned above the eye-line? So when we are trying to fill up the face of a simple human figures, we should take note of the location of various parts and their proportions.

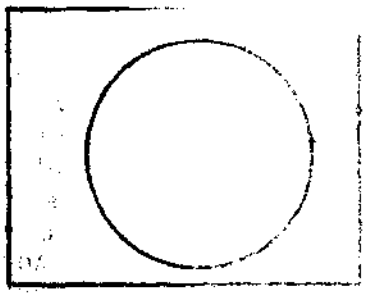
Materials that you Need

11
- plain paper
- pencil
- eraser
- coloured felt-tip pen
- one 50 cent coin.

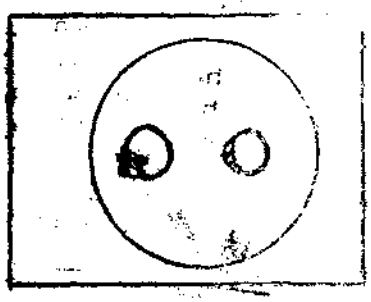
12 Expressions in human figures are very important.
If a human figure does not have the appropriate facial expression, the message sought to be communicated can be distorted. It is, therefore, essential that you should learn to practice these expressions - and once again - please note practice makes a man perfect. Another point which should be kept in mind is - keep your figures details-free. These are simple figures and, therefore, no details would be extremely essential. The figures must be able to convey the message - as simple and effectively as possible.

13 Now let us do some more practical work. This time it would be on understanding and developing human facial expressions.

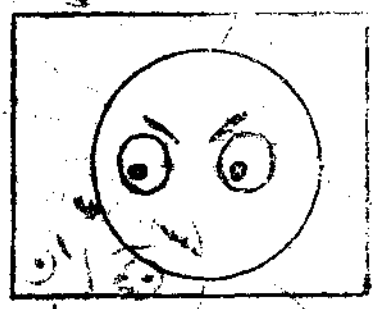
i. At the top of your paper, quickly draw a series of ovals or circles. You may use the 50 cent coin, if you like. But it is advisable not to use it. Do not worry about being precise. Draw them big and bold. About four or five circles would be enough to begin with.



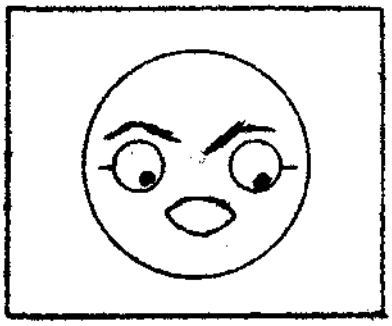
ii. Expressions of the face change with the shape or the eyes and the positioning of the pupils. Draw eyes in the circle and make pupils in different positions in the eyes. Of course, you know where about would the eyes be and the possible placement of the pupils!



iii. Draw another series of circles in the next line. Expressions can also be changed by the position of the eyebrows and eyelids. Draw eyelids, eyebrows and pupils in the faces in this next line. Experiment with trying to show different emotions.

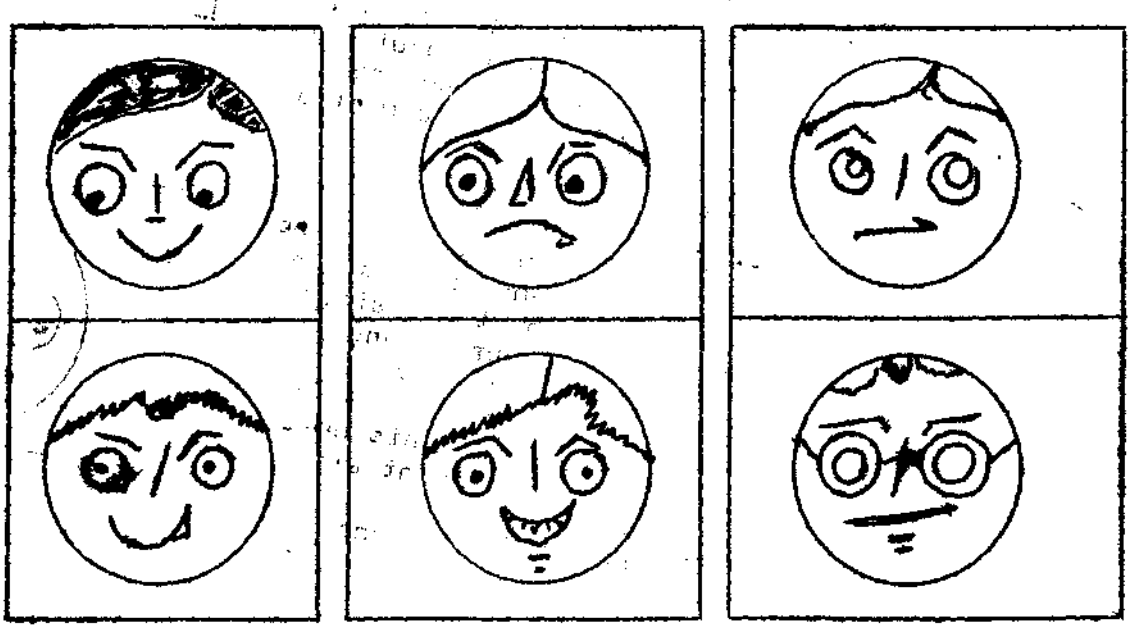


iv. Now draw the third line of circles. The mouth is another facial feature which gives us an idea of a person's feelings. Draw different mouths in these faces. When you have done this, add the eyes, pupils, eyelids and eyebrows. What do you find now? Are they not communicating something? Surely, they are in communication with you!



v. Now you have mastered the basic steps in drawing simple faces. You will now wish to begin adding your own touches. Select a few of the faces you have just completed and go back and add a few other characteristics - hair, perhaps a hat, or some other features which is common or would be easily identified by the people you work with. Add colours now, for hair, eyes, mouth, head-coverings etc., and others.

14 What is your impression of these exercises? You have drawn a human figure according to the proportions, you have drawn the figure of a male and that of a female, you have drawn the face, you have filled the face with eyes, mouth and others. You have in other words, with the help of these simple methods been able to complete figures of a human face. Keep it up, practice a little more and see the results that you obtain!

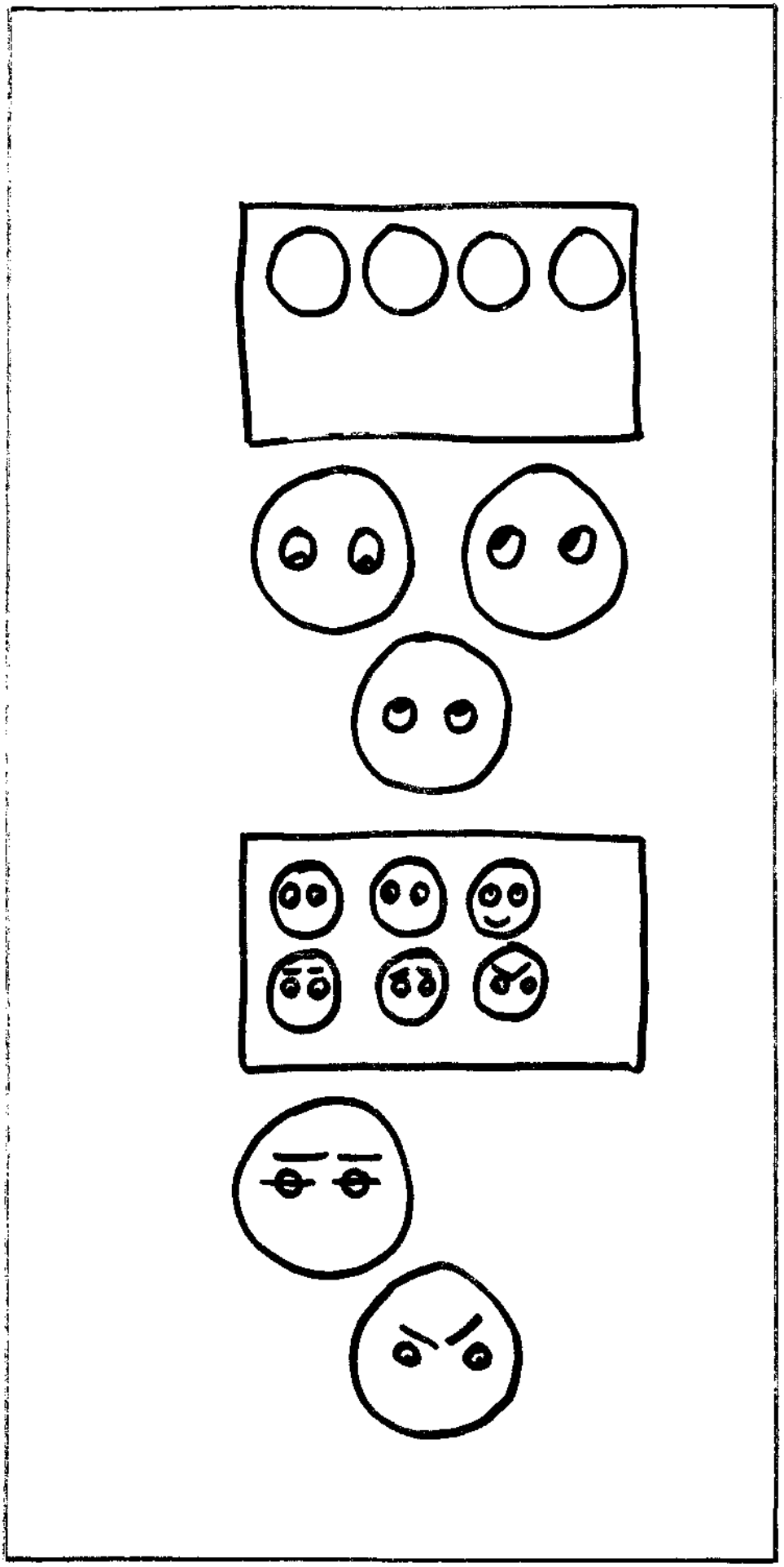


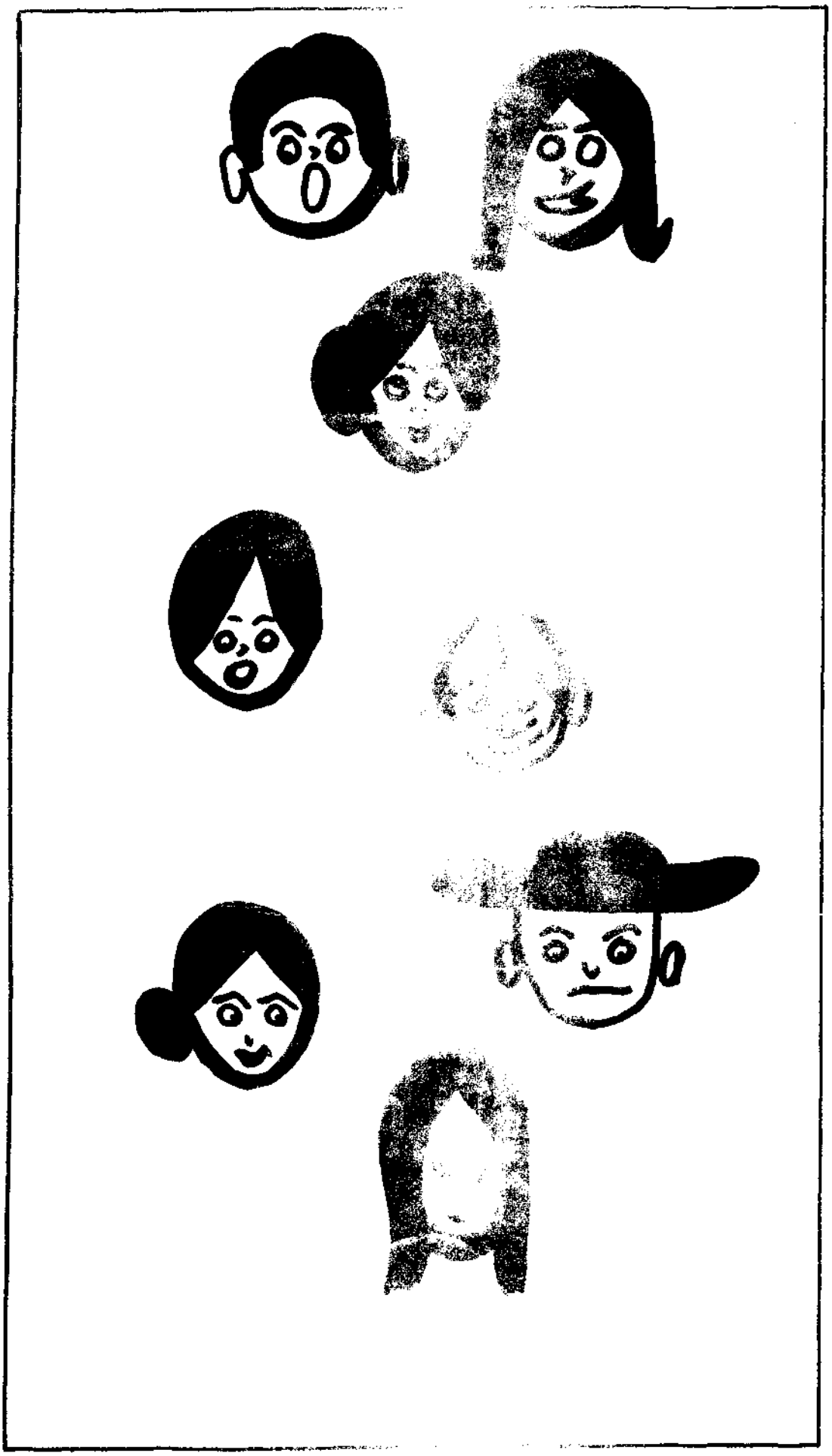
Summary

15 In the preparation of simple visual aids, it is necessary that some simple illustrations and figures are also included. Keep the figures simple and details-free. They have to be meaningful and they should be able to communicate with the people.

16 In drawing simple human figures take note of the proportions of the human body, distinguishing features such as face and dress and the movements of the body. In order to draw these simple figures you have to follow some simple rules. You have also to practice these rules if you would like to make use of simple figures in your simple visual aids.

6/9-70





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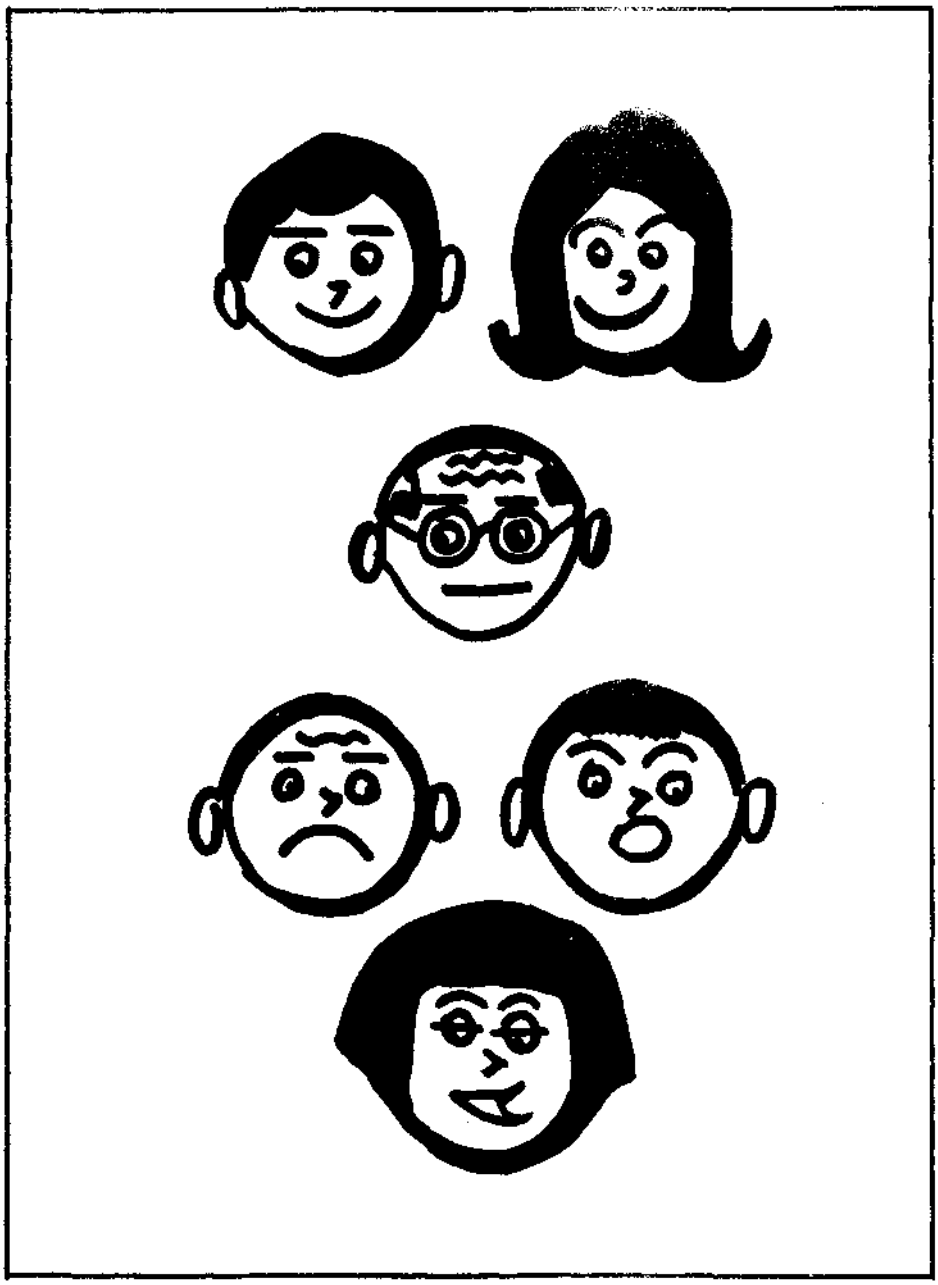

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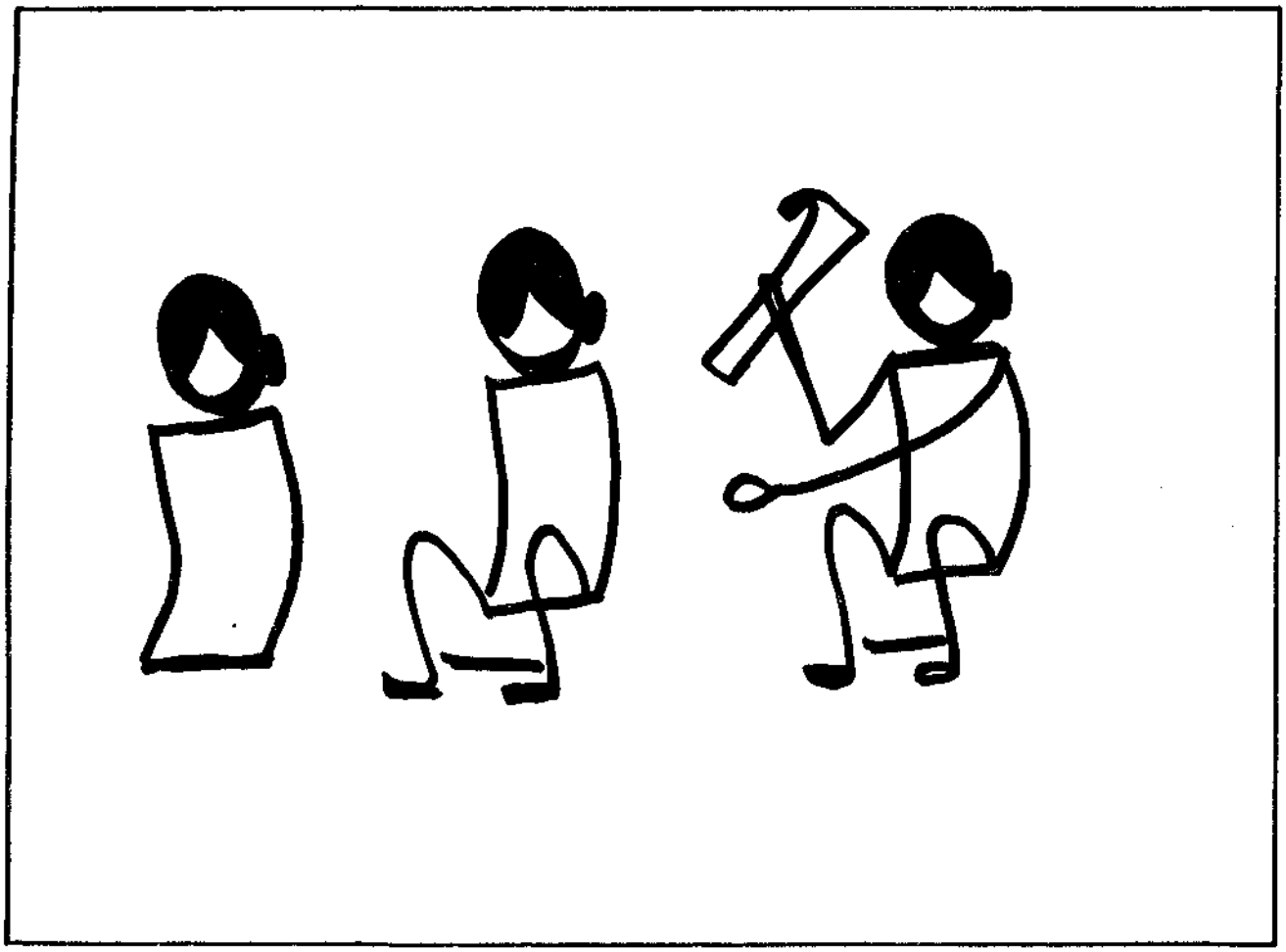

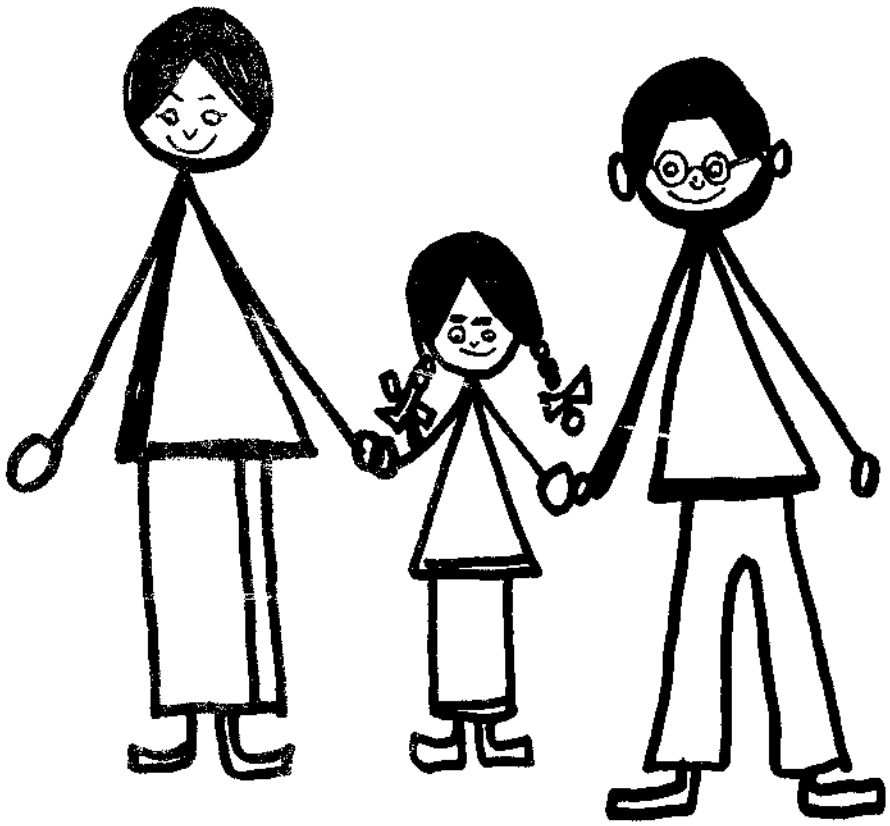

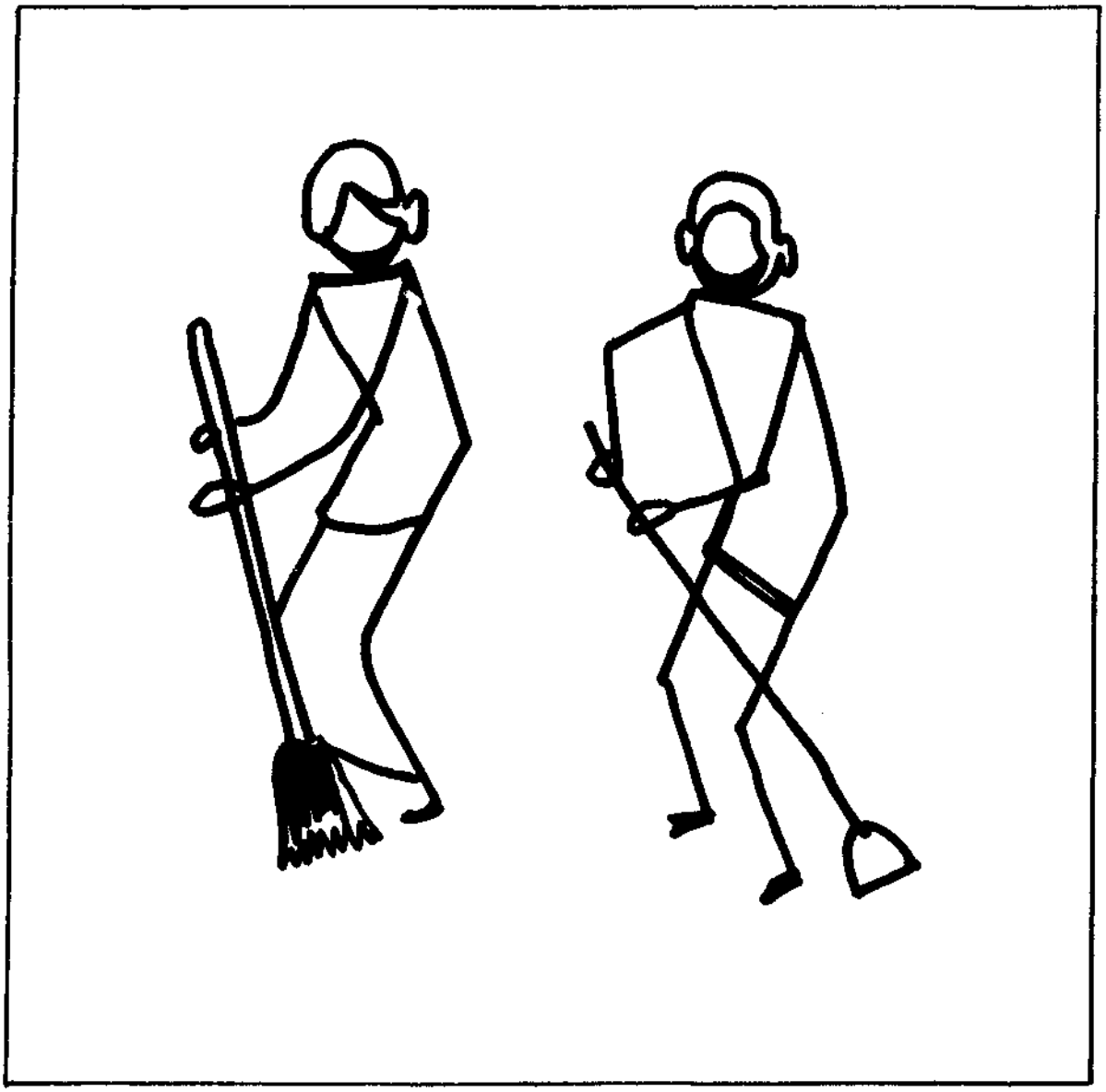


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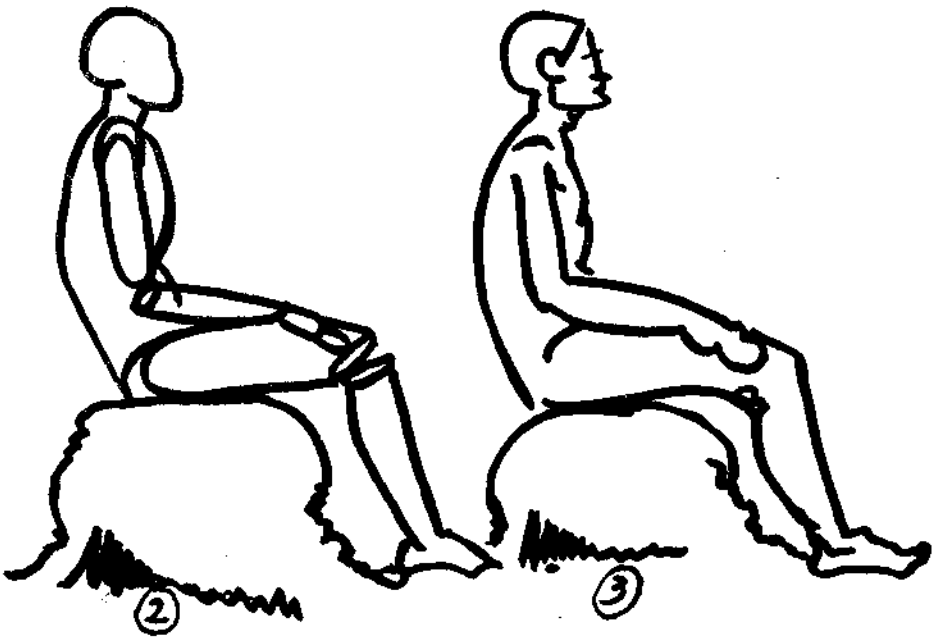
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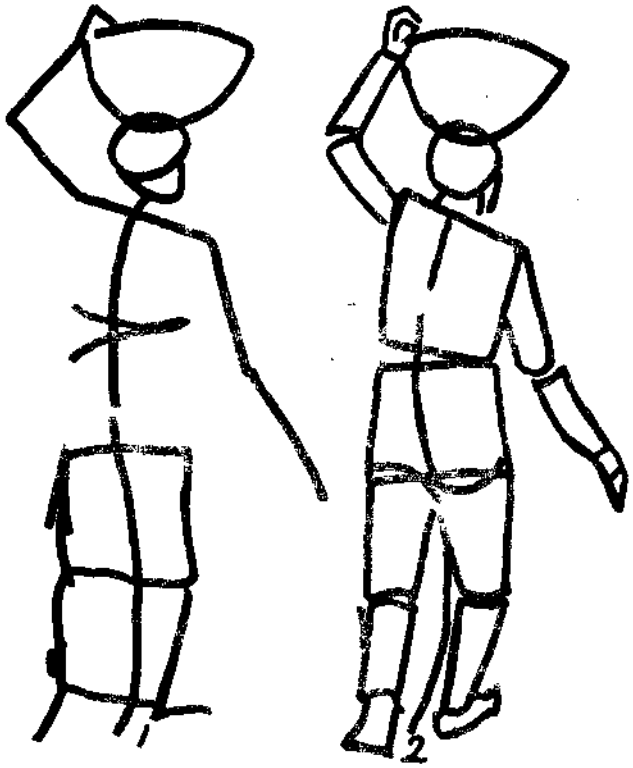
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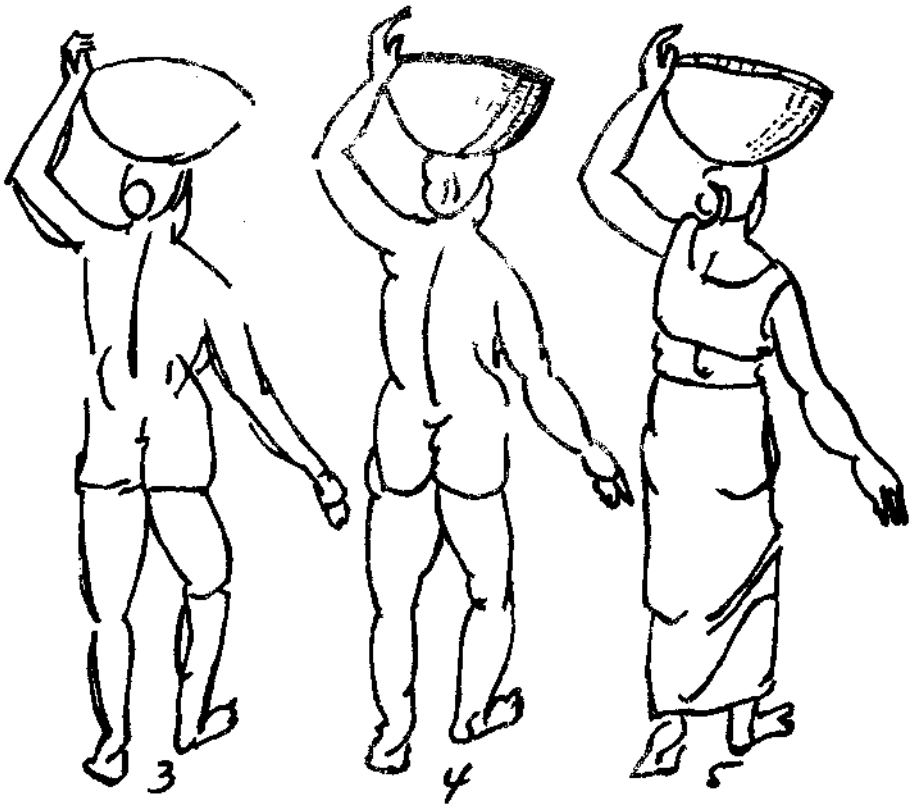
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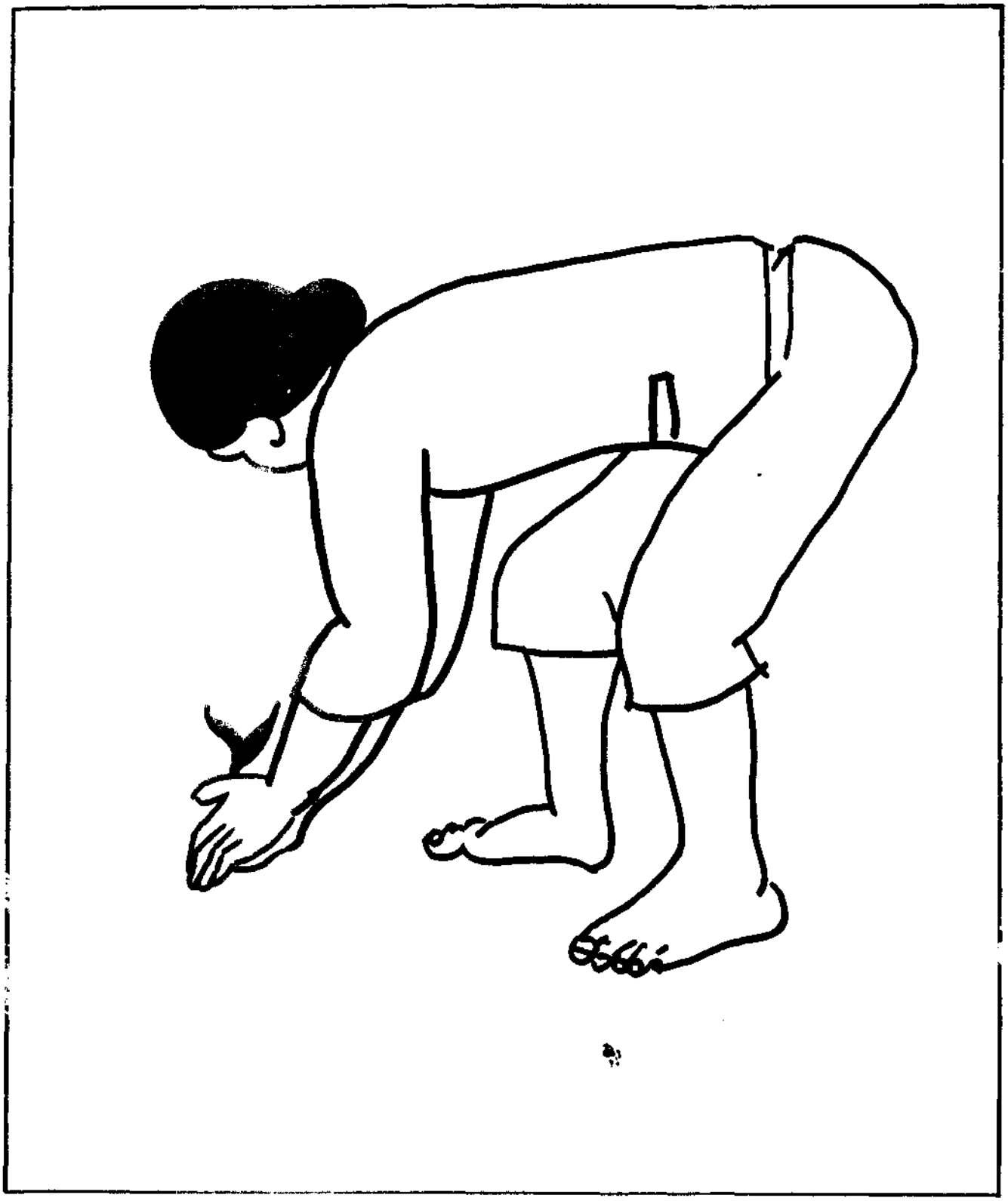
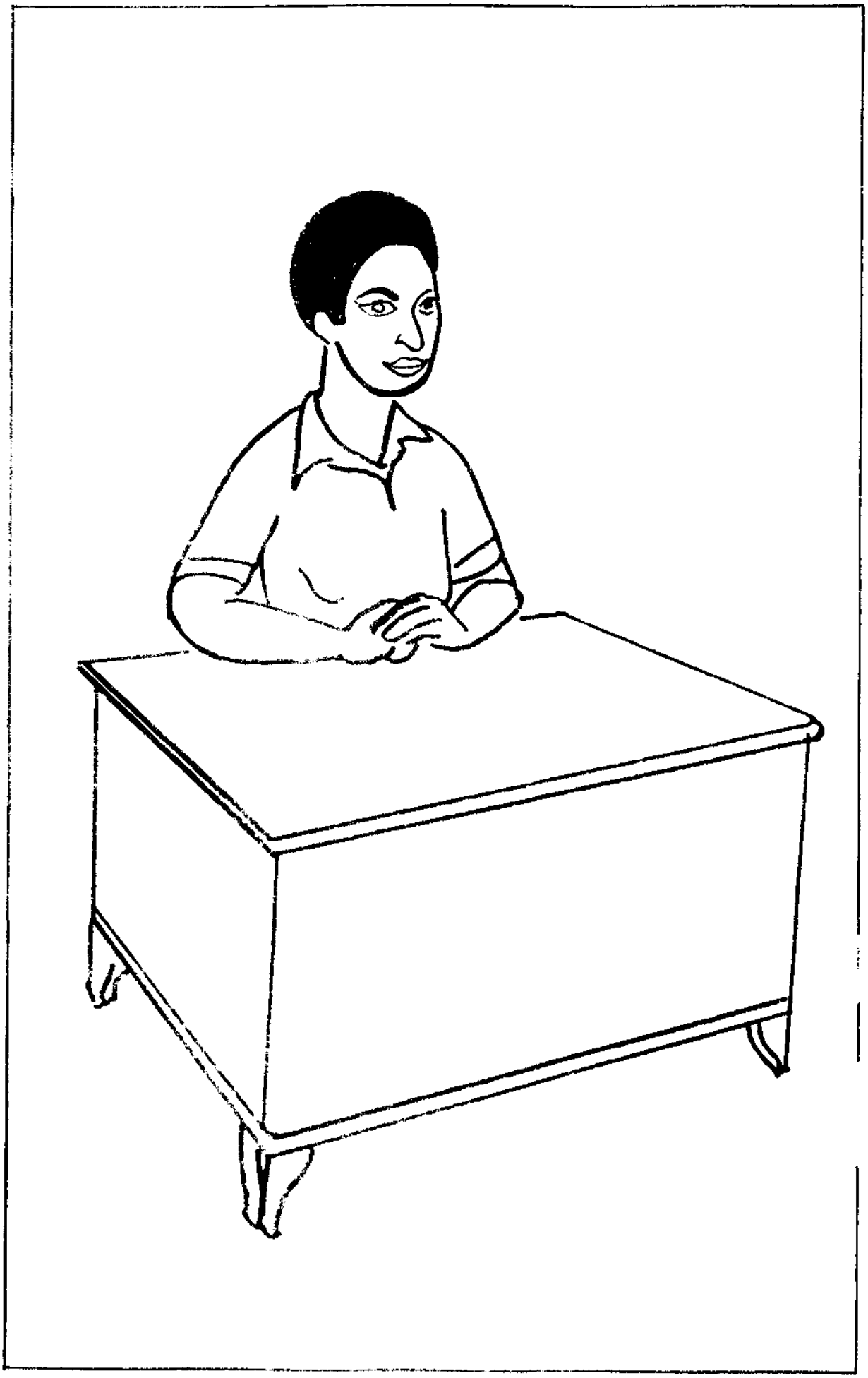
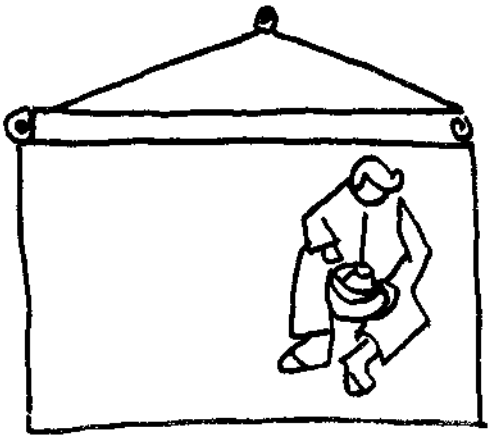
Combining Technique of simple stick-figures

These figures appear elsewhere in this handout. With the help of the tracing paper or with the help of the light-table you can combine pictures to suit your requirements. It is only a question of imagination. The figure seated on the stone has been reversed while the standing figure has been drawn very close to the seated figure. It is a fun mixing up pictures...

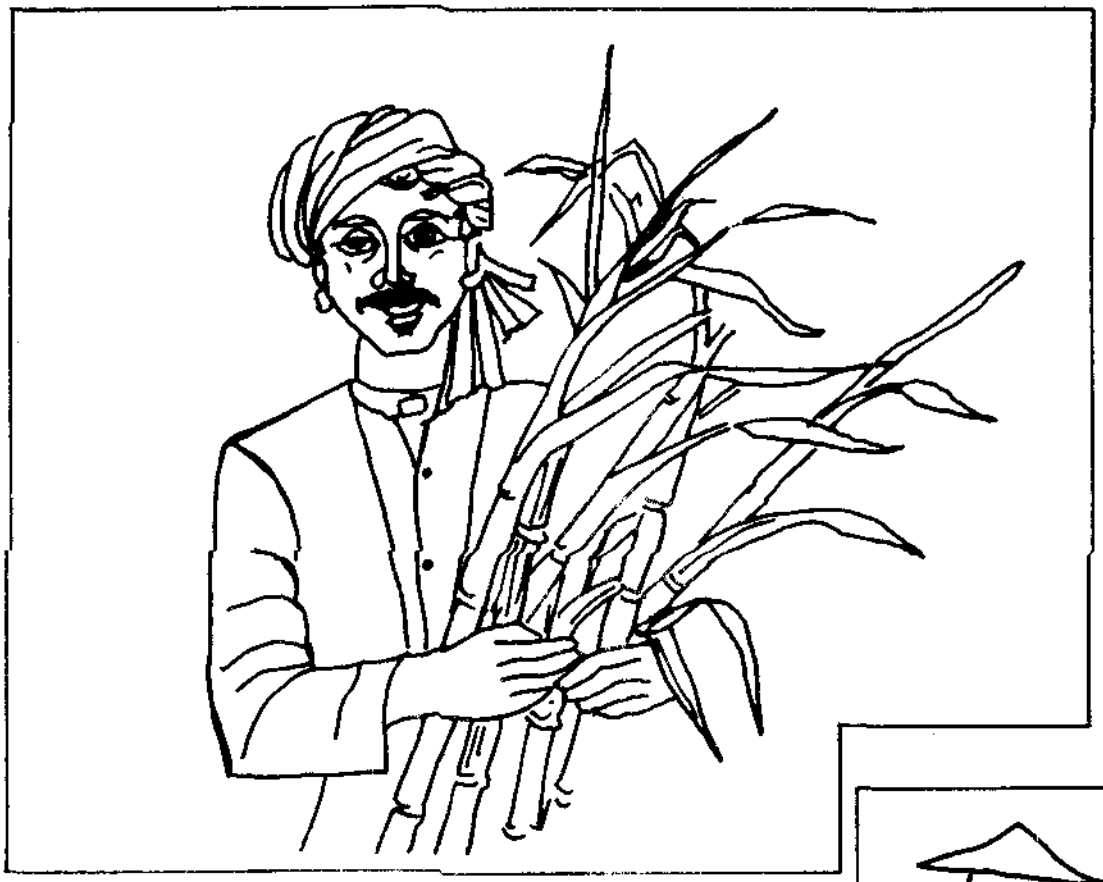
6/19-80

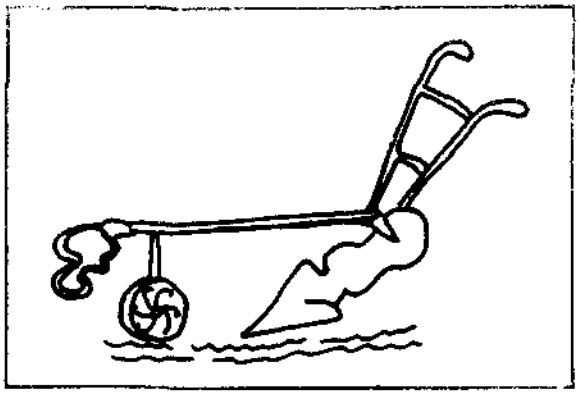


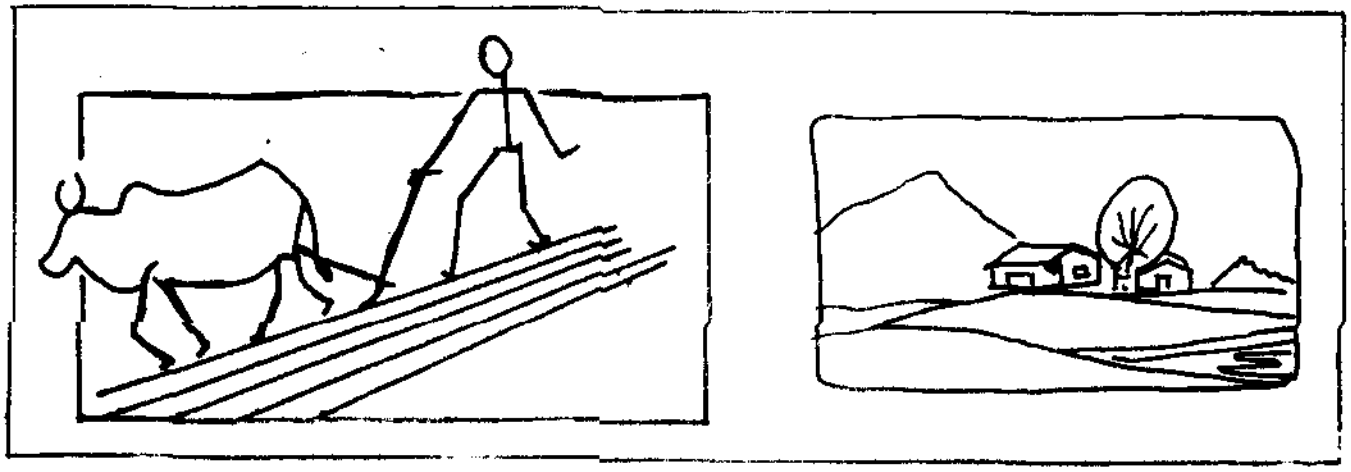


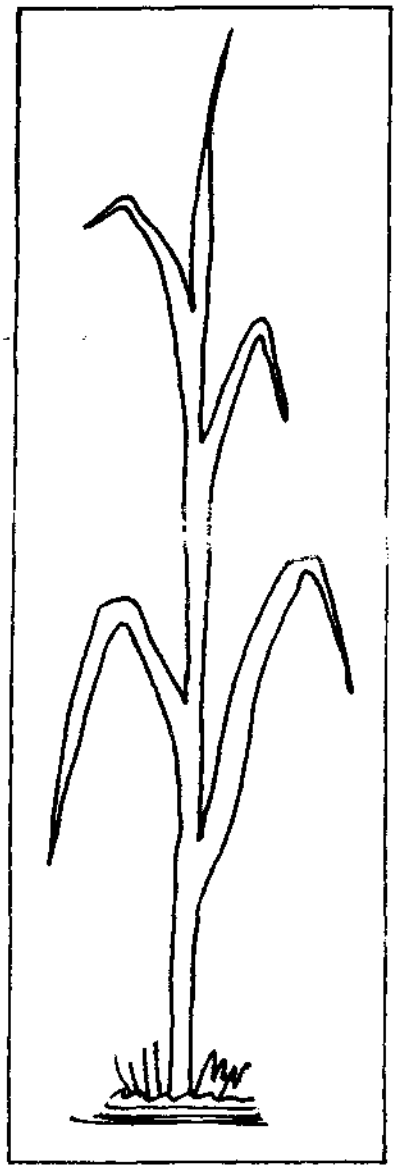


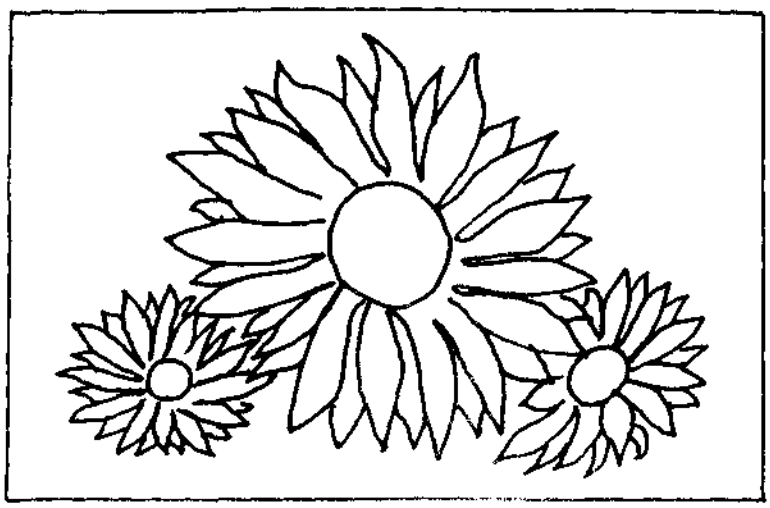

GROW MORE
FOOD

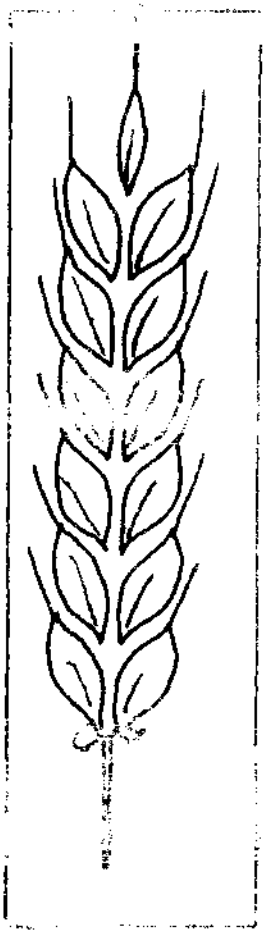


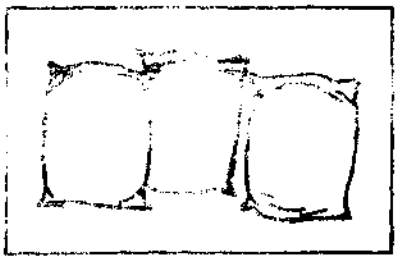


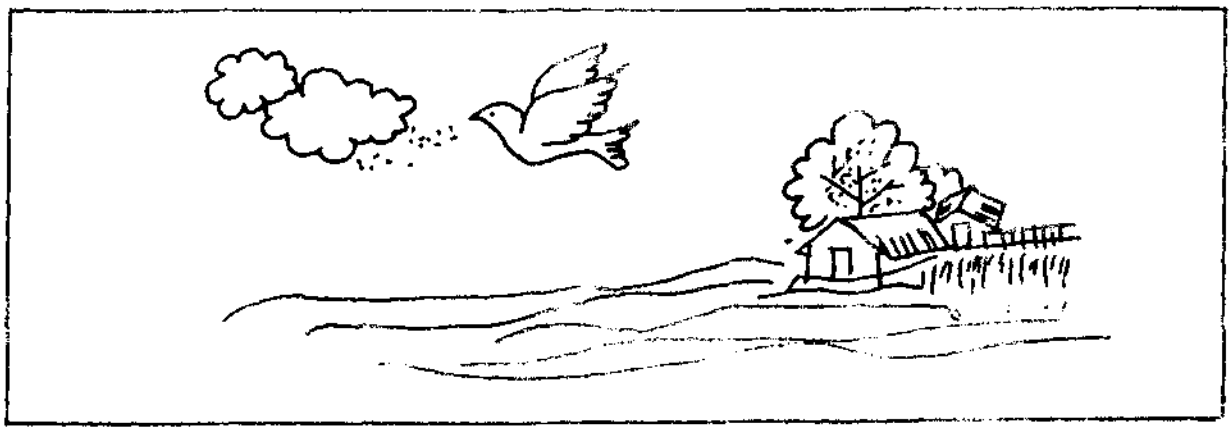


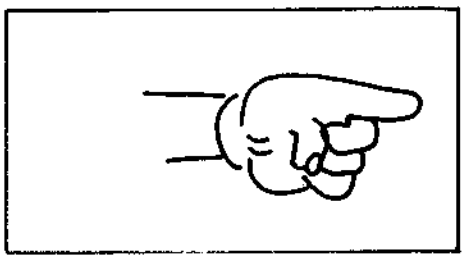


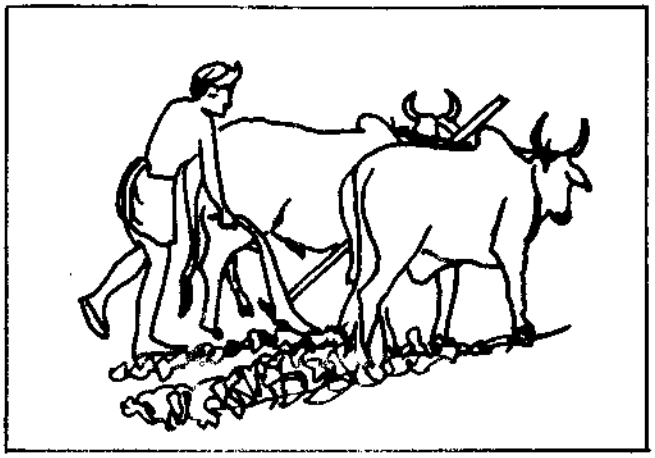


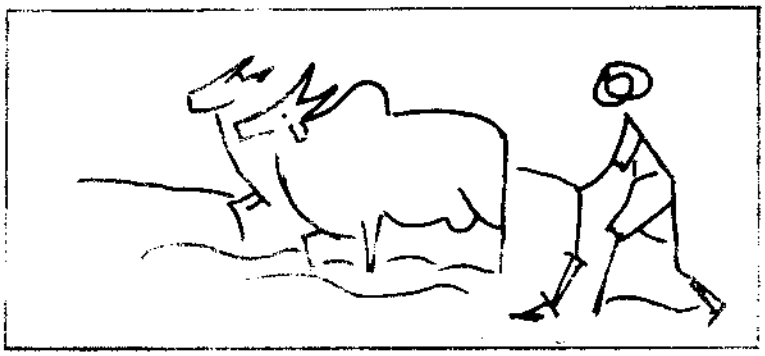


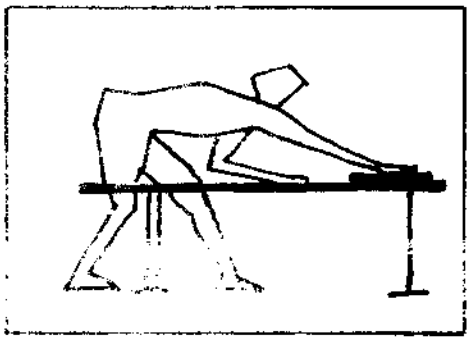


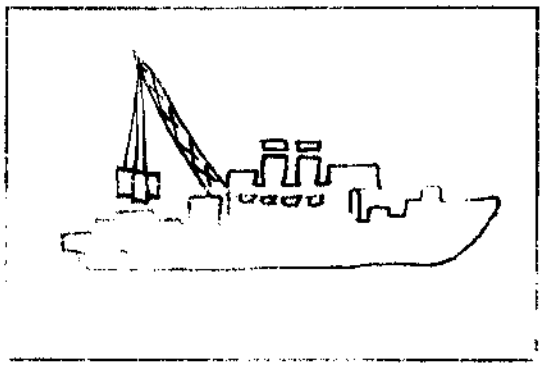


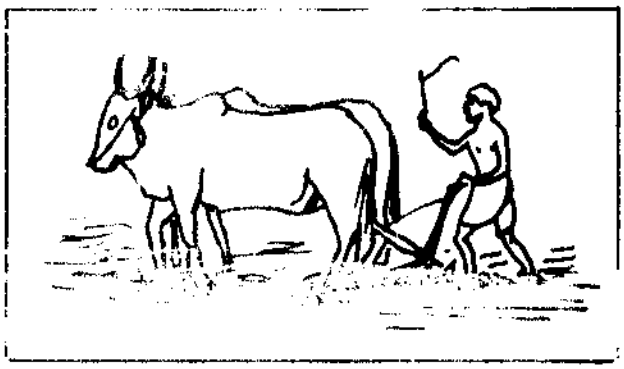


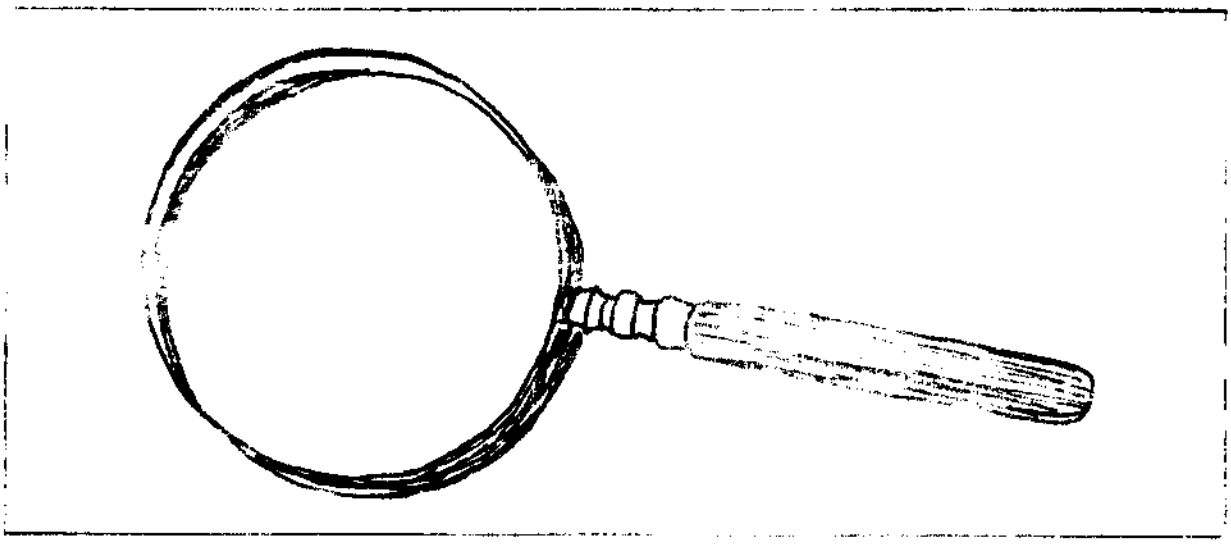


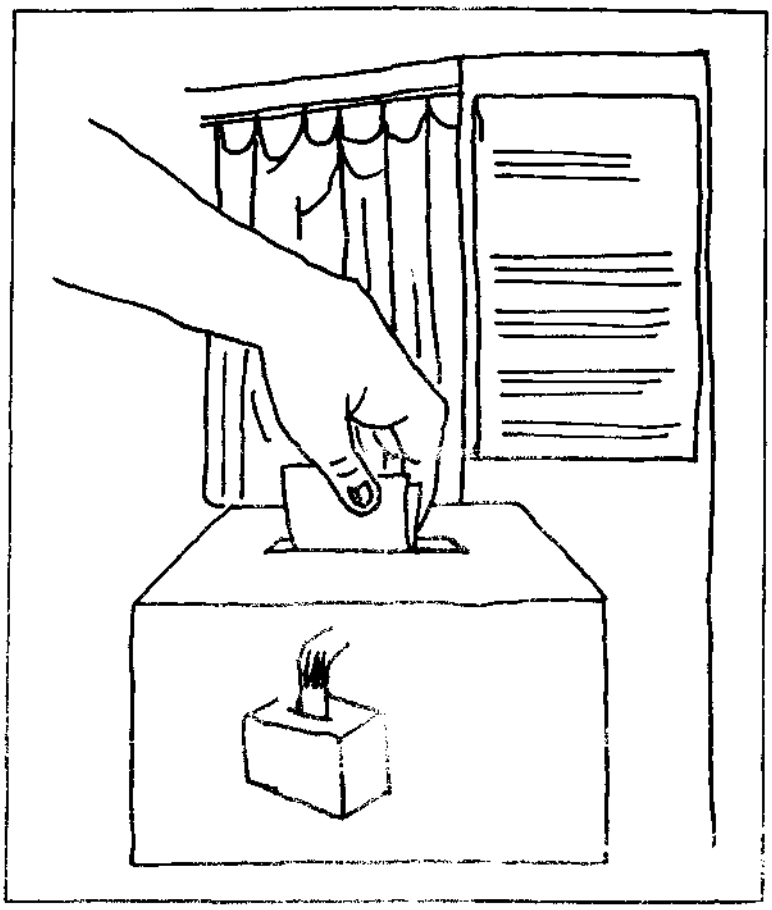


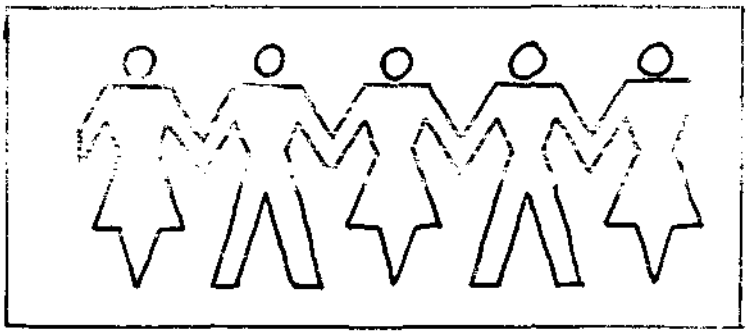


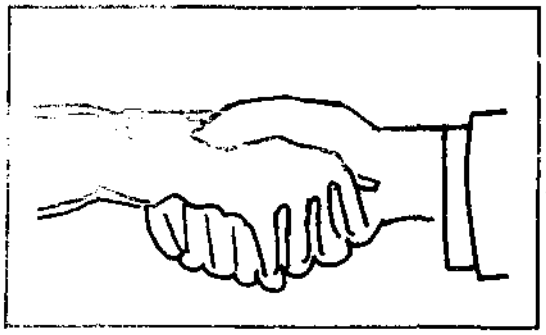


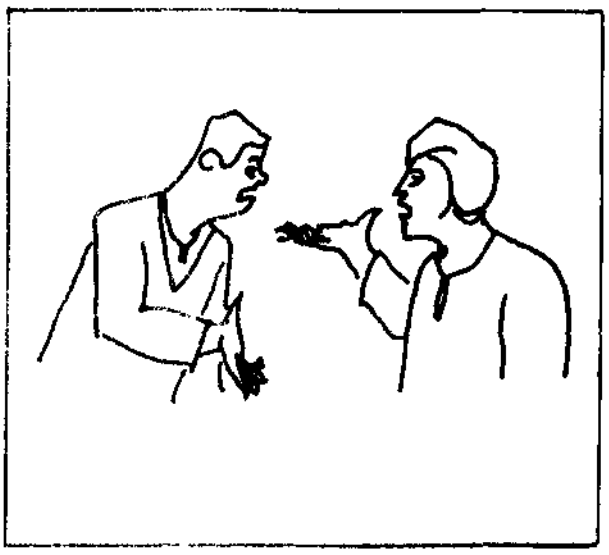


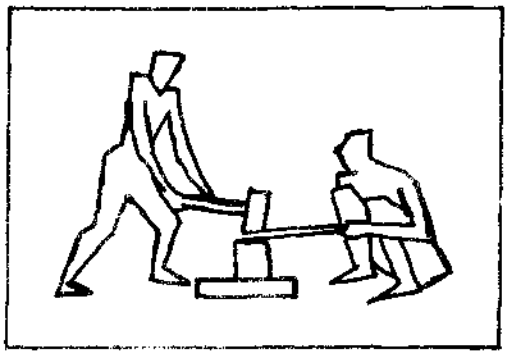


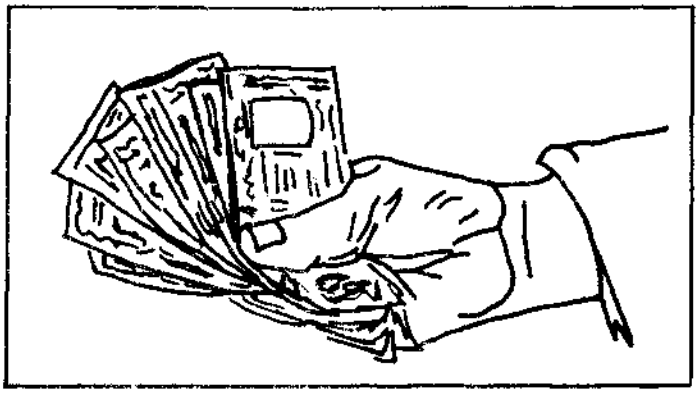


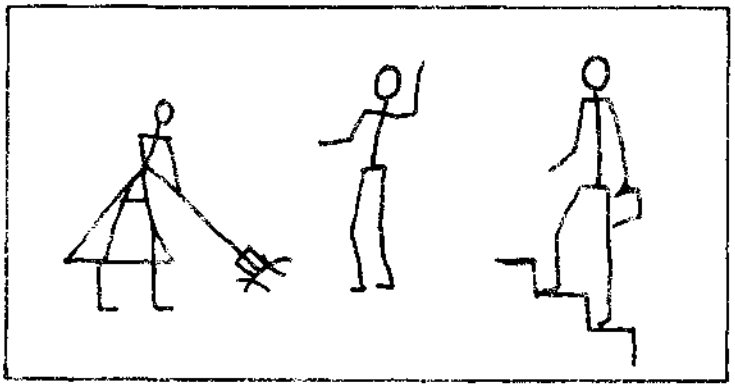


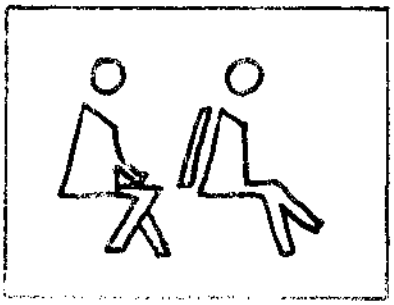


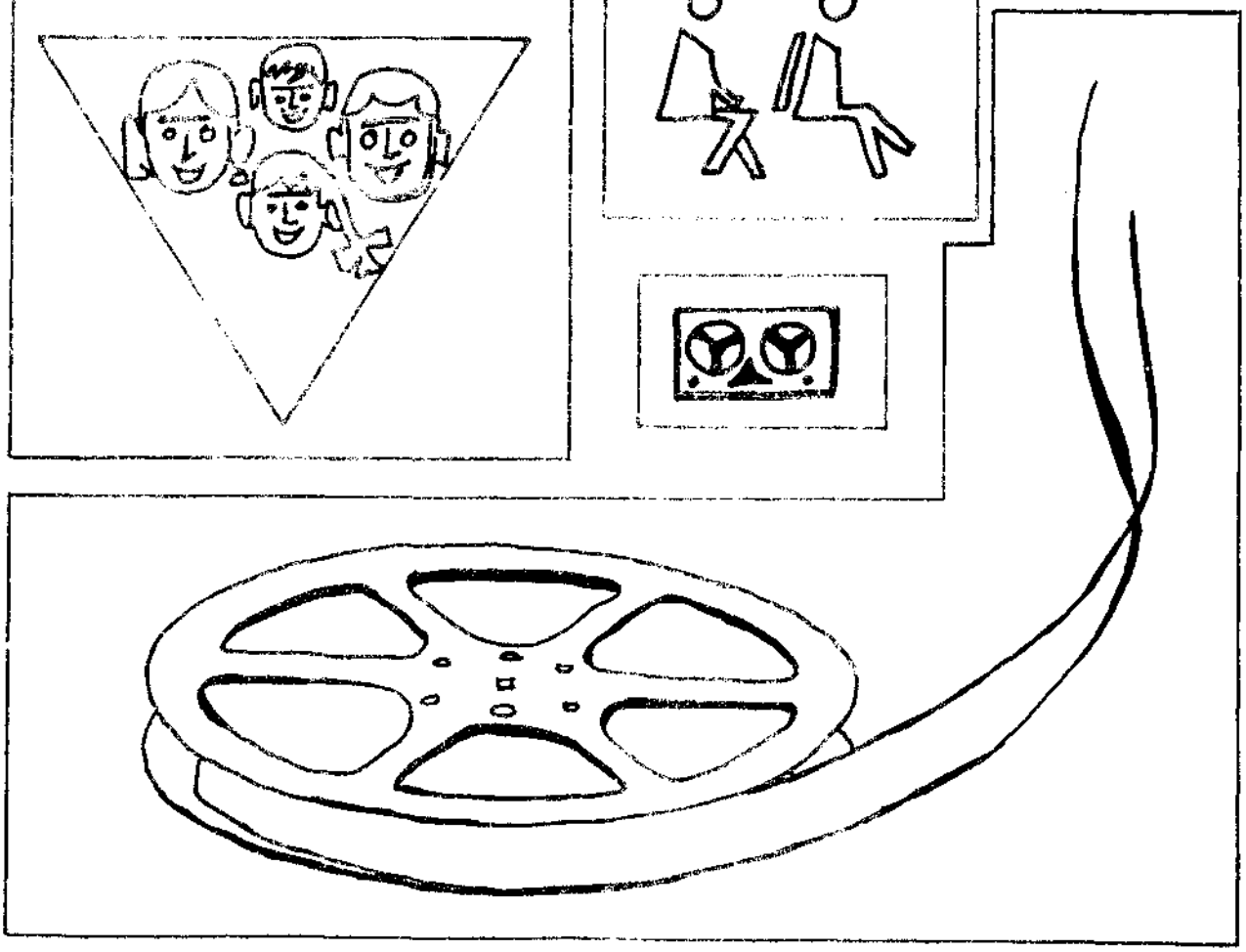


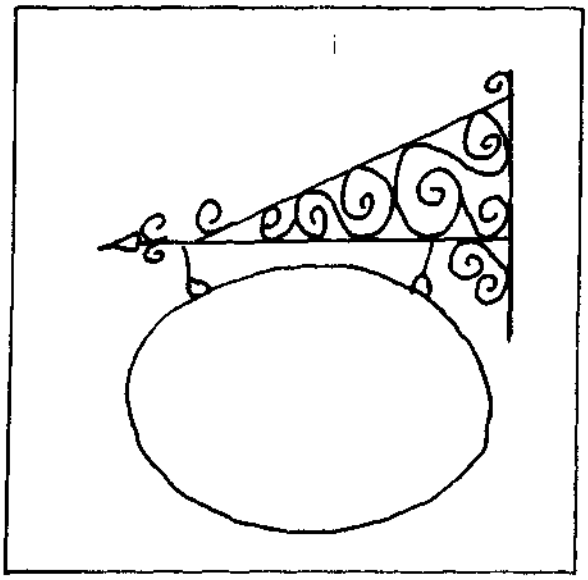


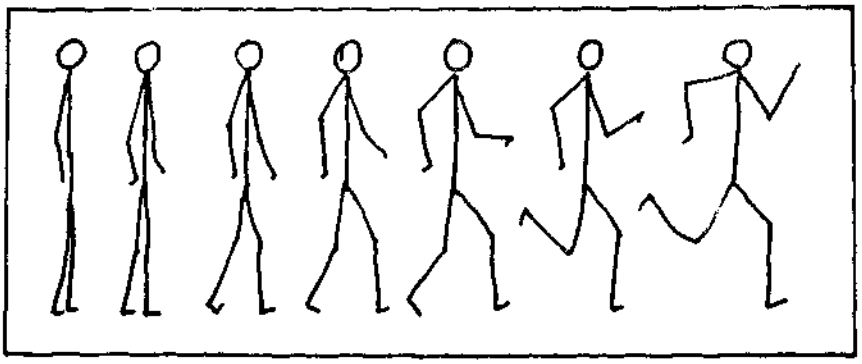


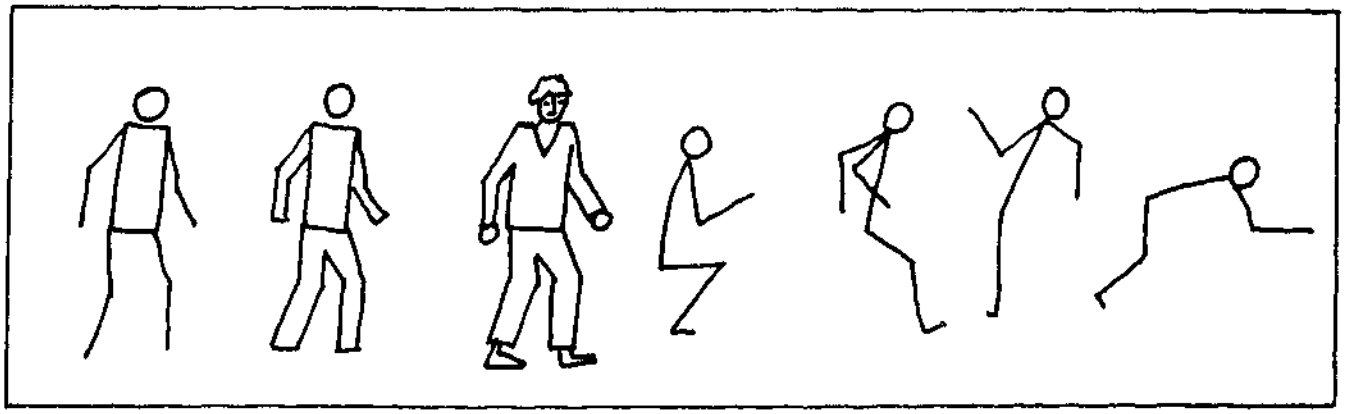












CHAPTER

POSTERS, CHARTS AND GRAPHS

07

Introduction

01 These visual aids - charts, posters and graphs - play a significant role in communicating with people. With the help of these aids, teachers can emphasise on the growth rate, rate ofprogress, comparative analysis and future projections. They are very simple to be made.

Posters

02 Posters have many features in common with charts, but also possess distinctive differences. A good poster can stand on its own and communicate its message effectively without assistance from any external source.

03 It is for this reason that nearly all posters are designed to communicate one idea only. Advertisements and hoardings placed by the roadside or near a railroad demonstrate this principle in action. The traveller may only have a moment in which to observe a poster presented in competition with other distractions. If the poster is not attractive or the message neither memorable nor capable of quick assimilation, the point is lost.

04 Occasions may arise when it is advantageous to present a series of posters with a common theme. Posters presented in this way should also possess a common feature, a visual point instantly recognisable, to connect with material previously presented. This could take the form of a symbol or slogan representing the campaign, the initial letters of the campaign title, a consistent colour scheme or even a recurring cartoon type character. Under rural conditions, posters may act as frequent reminders and persuaders.

05 In common with other forms of visual aids, posters should not be left on display for too long a period. An old poster is not the best way to communicate a new idea.

Important Points to Remember on Posters

06 The following important points should be kept in view while producing posters:

i. Posters must make a positive approach, for instance, 'SHOP COOP'

ii. The content of a poster must be limited. It must achieve a lot in a short time. One point only and that too should be clearly made.

iii. The message may be conveyed in bold letters, with an illustration to reinforce and make the idea memorable, especially for illiterates or neoliterates.

iv. A short catchy phrase may help. Use may be made of alliteration or rhyme.

v. Message and illustration must be clear enough to be read at the required distance: style and size of both lettering and illustration are important.

Teaching Charts

07 Cooperative training offers working under adverse rural conditions will find that charts are one of the most useful forms of visual aids. They are light in weight, easy to present, and may still be utilised when conditions do not permit the use of more sophisticated media.

08 A teaching chart is essentially an aid to formal education, although it may also be used to create talking points and stimulate discussion in cooperative meetings.

09 Teaching charts can be a series of charts one linking with the other. The series must present a full lesson and cover one point in greater detail.

10 The size of lettering used is important. The writing should be visible from the back of the classroom. As this is largely a question of style, experiments must be tried, and the clarity of such work assessed under actual working conditions, and then any modifications made.

What Teaching Charts Can Do?

11 The following are the things which Teaching Charts can do:

* Save time spent on preparing elaborate and repetitive talkboard work;
* Make better use of colour and contrast than is possible with the chalkboard;
* Form an aid to the accurate presentation of material;
* Permit the use of mounted pictures cut from magazines or newspapers;
* Be used in conjunction with the chalkboard.

Wall Charts

12 Wallcharts have some special advantages but, as they essentially are for follow-up use in informal sessions, they cannot be really effectively used outside these limits.

13 In composition, a wallchart may be likened to a wall newspaper. The content is very much greater than that of either poster or a teaching chart. It may present more pictures on a much smaller scale, and smaller text requiring closer study.

Features of Wallcharts

Attraction

A wallchart needs a feature to attract the eye, to draw the attention of the viewer towards it. This result may be obtained by:

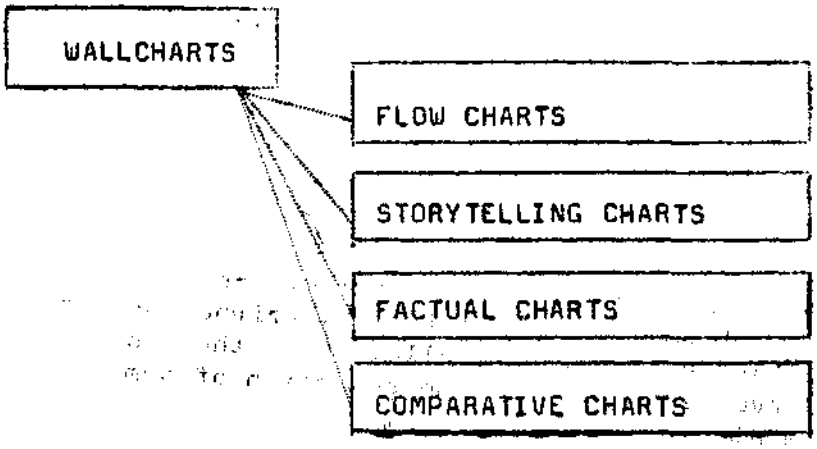
- Using a striking title;
- Using a bold illustration, somewhat larger then the other illustrations;
- Careful use of a striking colour.

Resolution

A wallchart should have an aim and a conclusion. If these are absent, it cannot teach anything.

Types of Wallcharts

14 They can be grouped under the following broad headings:



Presentation Technique

15 Wallcharts serve a specific purpose. They are not mere exhibition panels. The following points should, therefore, be kept in view while using them:

* Do not leave wallcharts (or posters) on display for too long a period. They quickly lose their effectiveness;

* Limit the amount of material on a chart, and do not present too much at once. A maximum of seven distinct items is a useful rule to follow;

* Eliminate unnecessary details. Observation is best when the effort involved in comprehension is least.

Assessment of Wallcharts

16 Wallcharts should be striking, strictly relevant to the situation, with their salient points easy to remember. The more information presented at one time, the less likely is it to be memorable. It is of value to pose some questions as an aid to the assessment of wallcharts. These could be:

(?) Does the wallchart attract attention;

(?) Is the message clear;

(?) Is the message presented in a persuasive and stimulating manner;

(?) Is the message within the comprehension of the viewers;

(?) Is the sequence of presentation logical;

(?) If the chart is to be used for teaching purposes, is it visible from the maximum viewing distance.

Making Posters and Charts

17 Individual preferences for equipment and methods can only be determined by practical experience and the availability of material. The following is the list which can serve as a guide to the selection of some basic equipment:

- Drawing board and T square, if possible
- Soft grade of pencil
- Ruler
- Eraser
- Steep pens or felt-tip pens
- Coloured inks for use with pens
- Lettering guides and stencils of various sizes
- Poster colour and brushes
- Variety of coloured paper, plain bold colours
- Supply of white cartridge paper
- Plain brown paper and grey sugar paper
- Rubber or other adhesives
- Tube of quick-drying adhesive

Paste-up Method

18 The paste-up method is a simple way of producing a wallchart. A selection of prepared illustrative and textual matter is systematically arranged on a contrasting inexpensive background paper. The individual items are then mounted with adhesive. The main advantage of this system is that lettering, illustrations and captions can be produced independently, trimmed, if necessary, and a trial layout made to determine the best arrangement. Rubber or latex-based adhesives are clear, clean and quick in use and any surplus adhesive could be easily rubbed out. Items may also be spotted on at each corner with small dots of quick-drying tube glue. They may be

quickly and accurately positioned if light pencil location marks have first been made on the background paper.

19 Charts prepared in this way should never be rolled, and all charts are best stored flat. A chart with a permanent curl is difficult to use, and rolling a pasted-up chart will quickly ruin it.

Layout

20 When planning, work to a Scheme. The word ACT can form a useful reminder:

A -AIM	Determine the concepts and ideas to be taught
C -CHOICE	Select the necessary material
T -TRIAL	Sketch or arrange a trial layout

Relationships

21 Items which are related must be shown to be related. Association may be indicated by grouping.

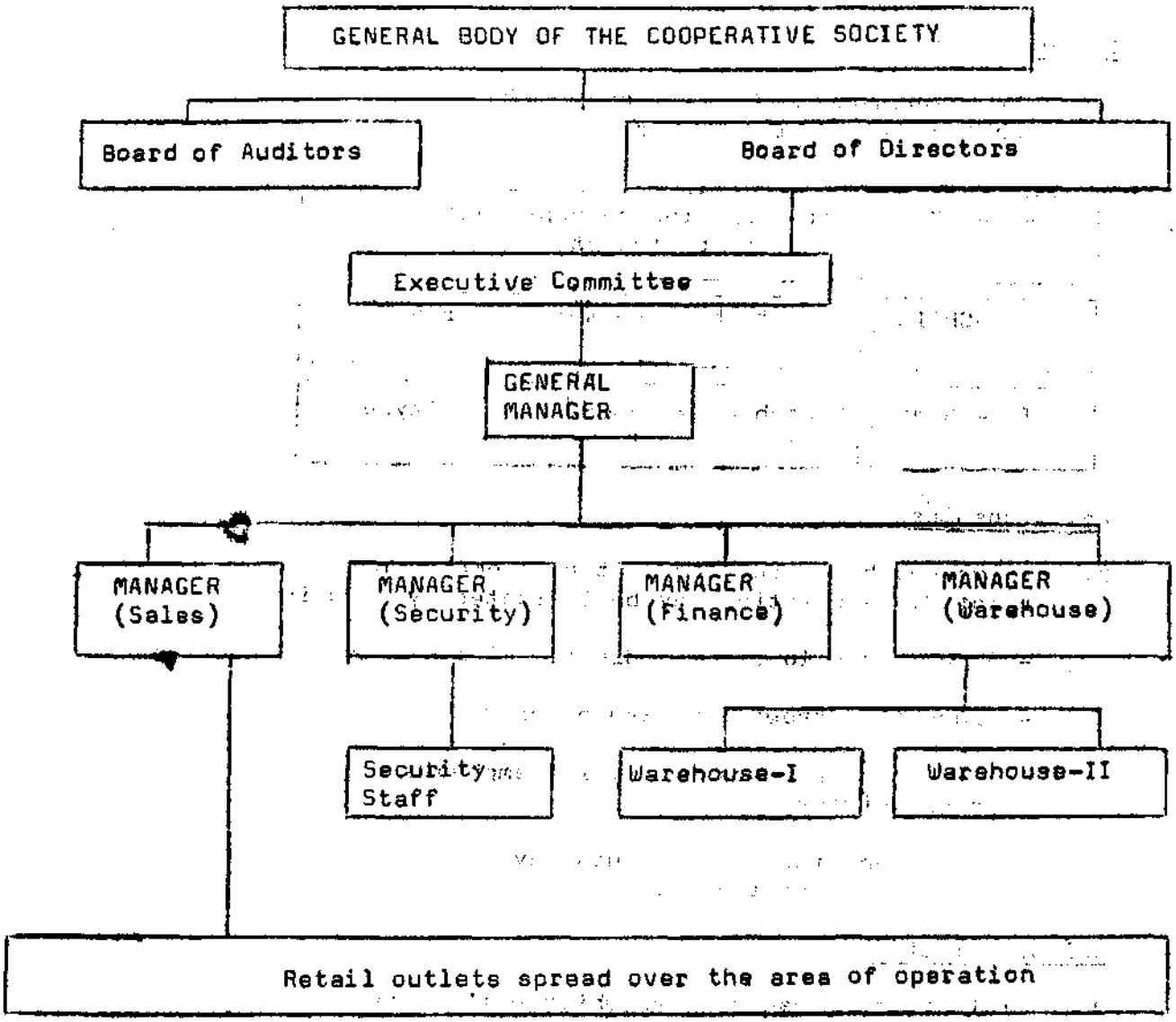
- Shape and colour may indicate relationship
- Lines and arrows may also be used
- A coloured background may lay emphasis on one picture
- Formal and informal layouts may suit different topics.

Colour Selection

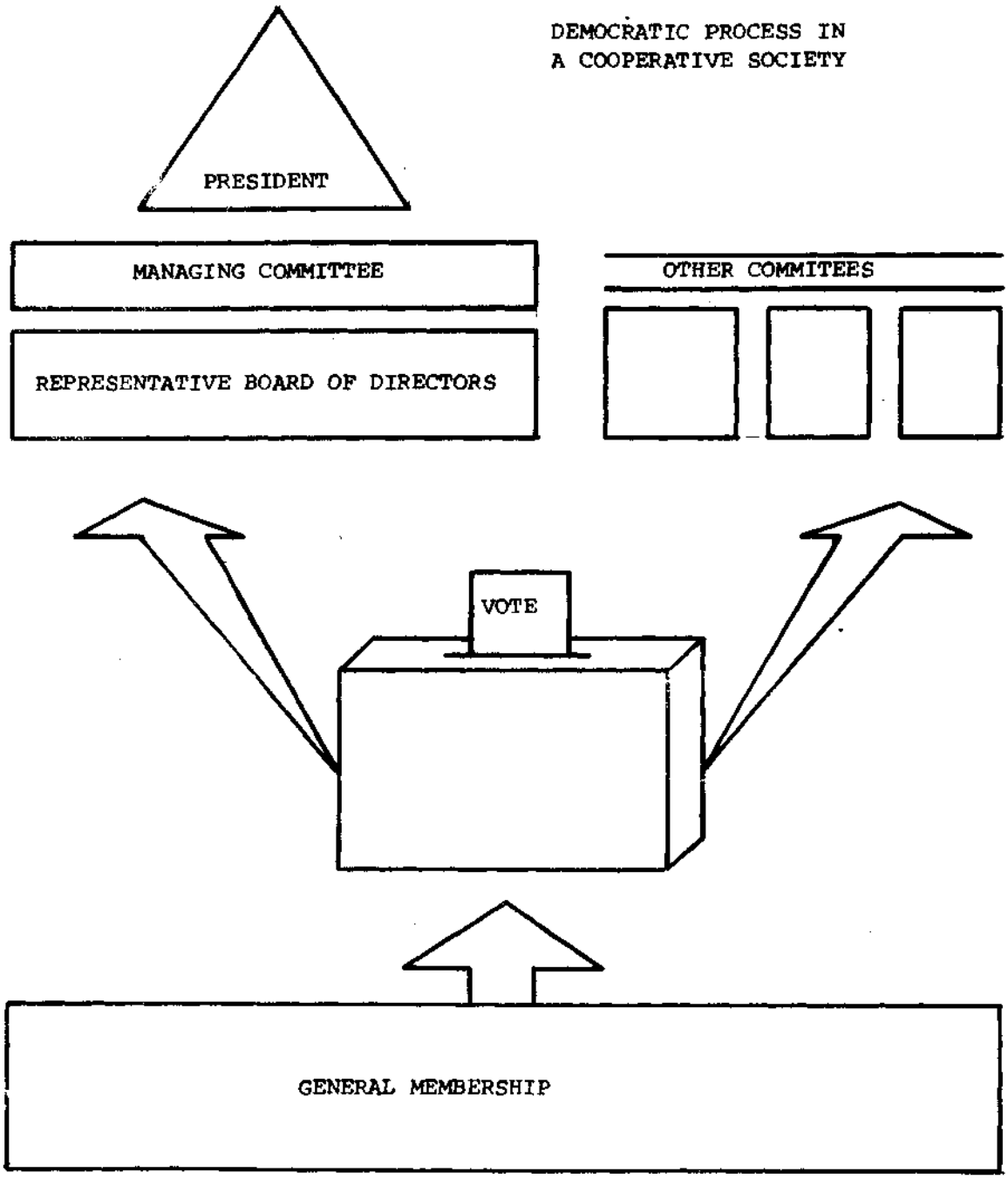
22 It is best to use colours which will contrast and complement. Black, white and one of the primary colours will have a striking effect. Do not introduce without careful consideration more areas of plain colour than necessary to show associations and relationships.

AN EXAMPLE OF ORGANISATIONAL CHART

Showing relationship in an organisation and the line of authority

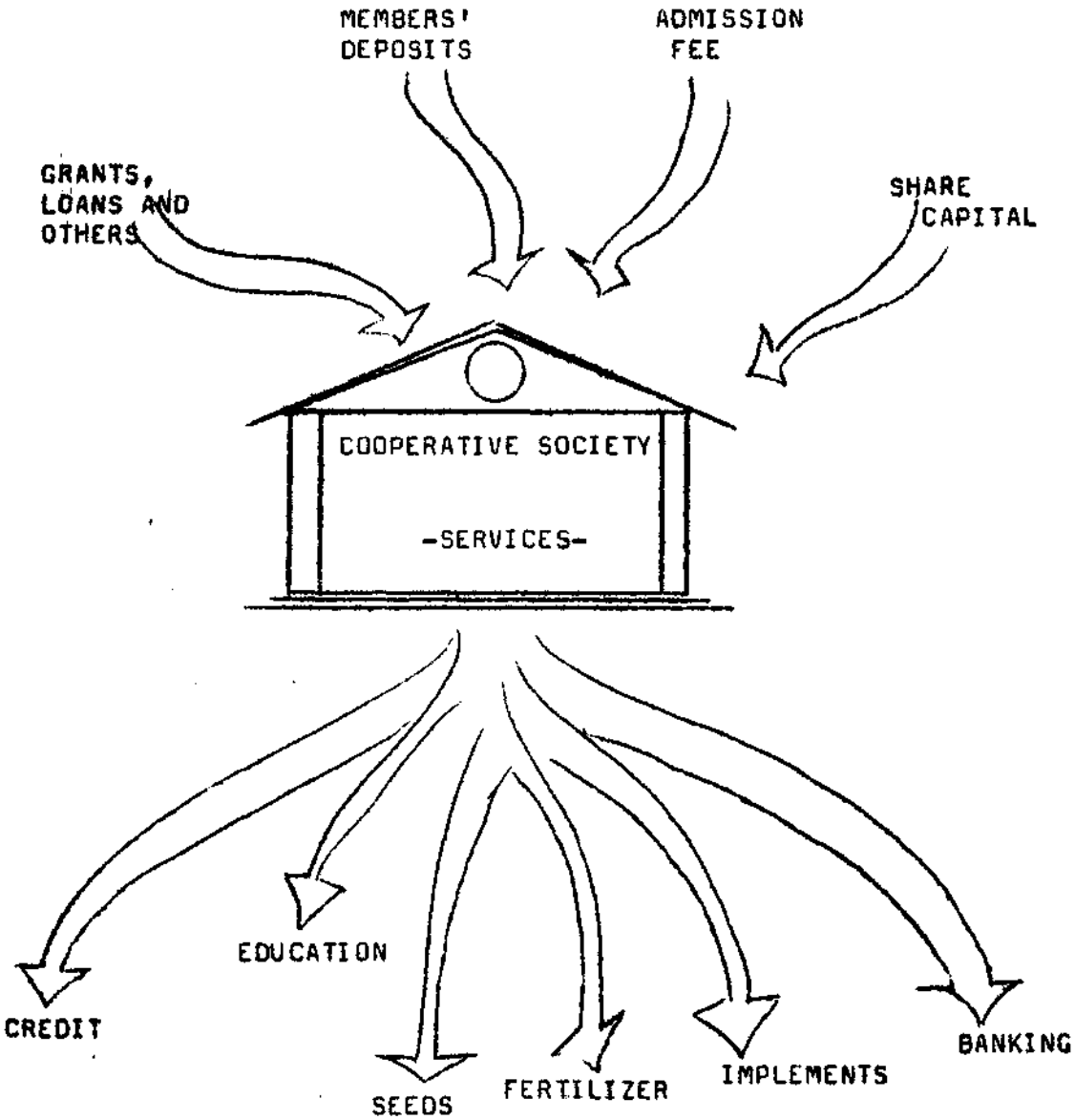


DEMOCRATIC PROCESS IN
A COOPERATIVE SOCIETY

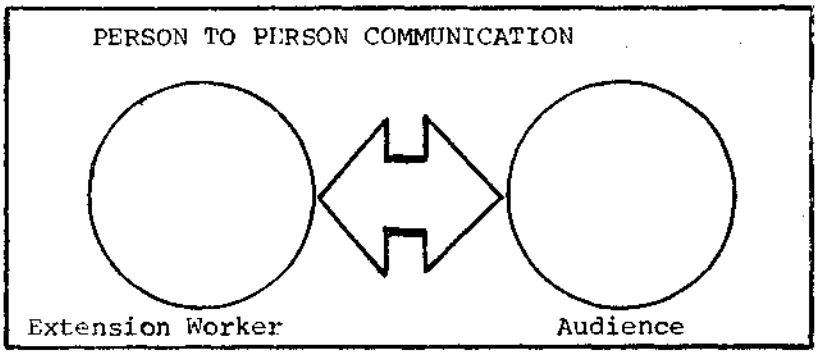


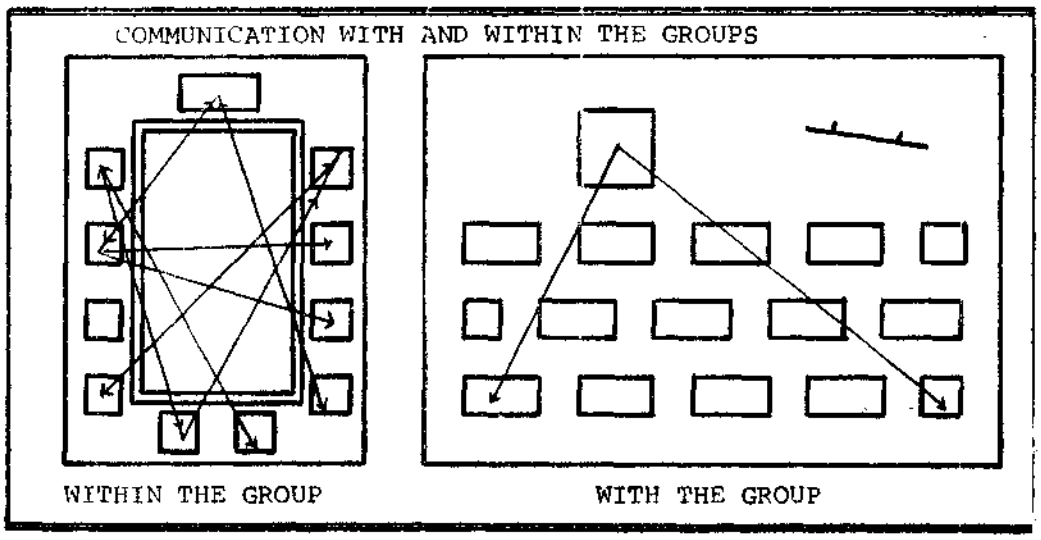
AN EXAMPLE OF A FLOW CHART

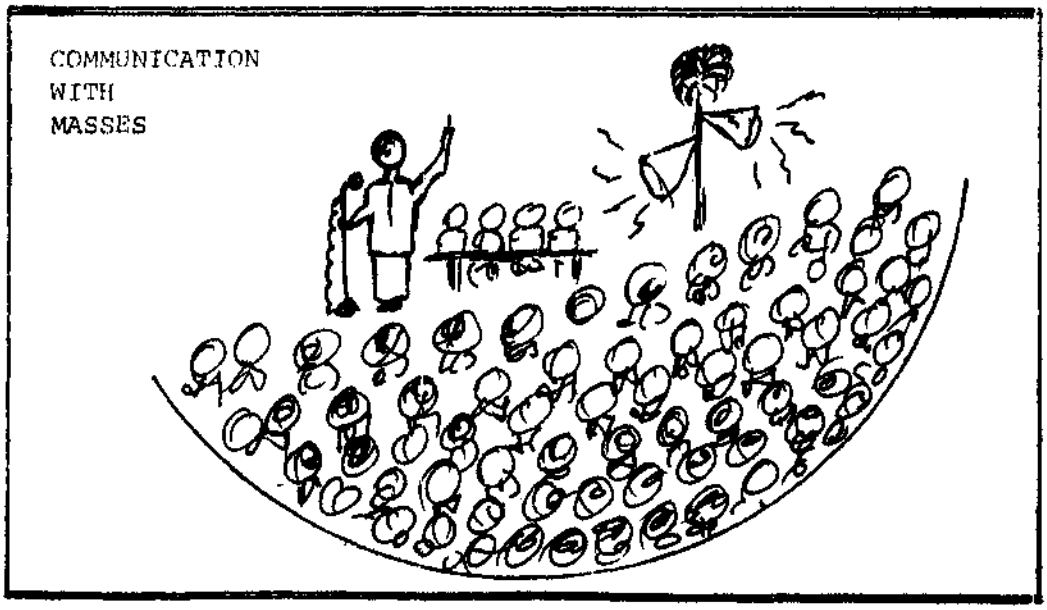
Showing the flow of finances and services



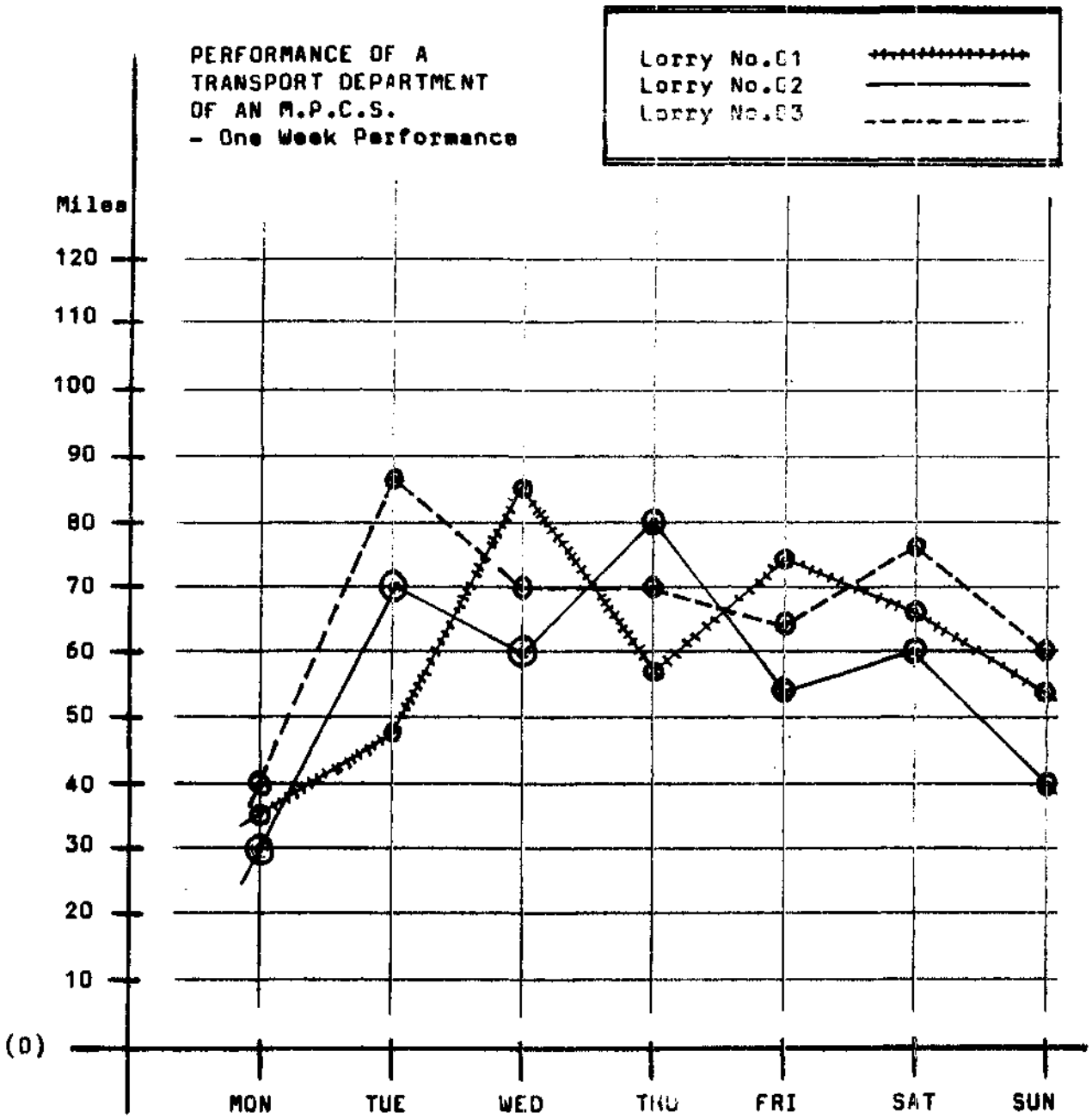
COMMUNICATION : TARGET GROUPS





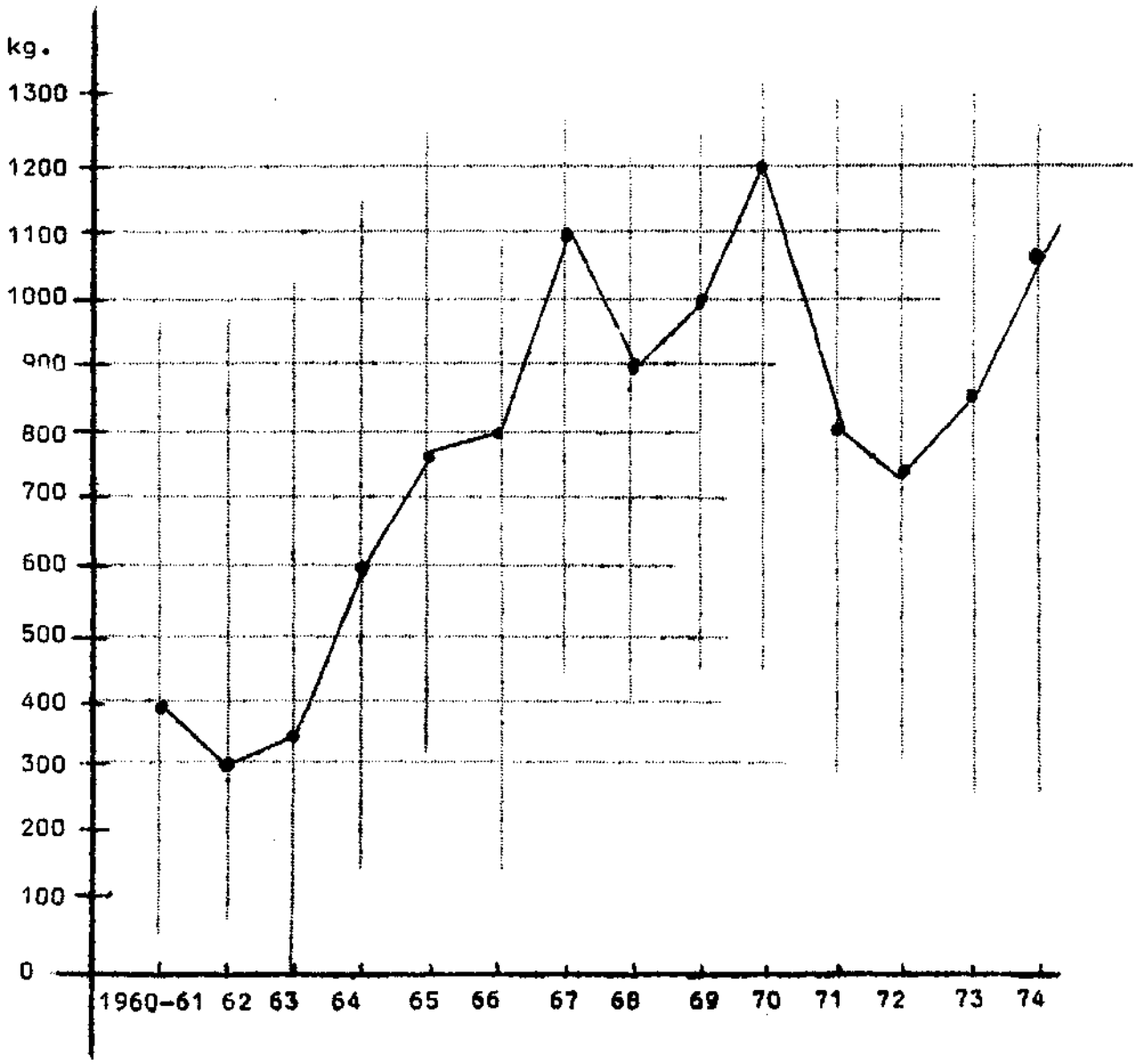


AN EXAMPLE OF
USING
MULTI-LINE GRAPH



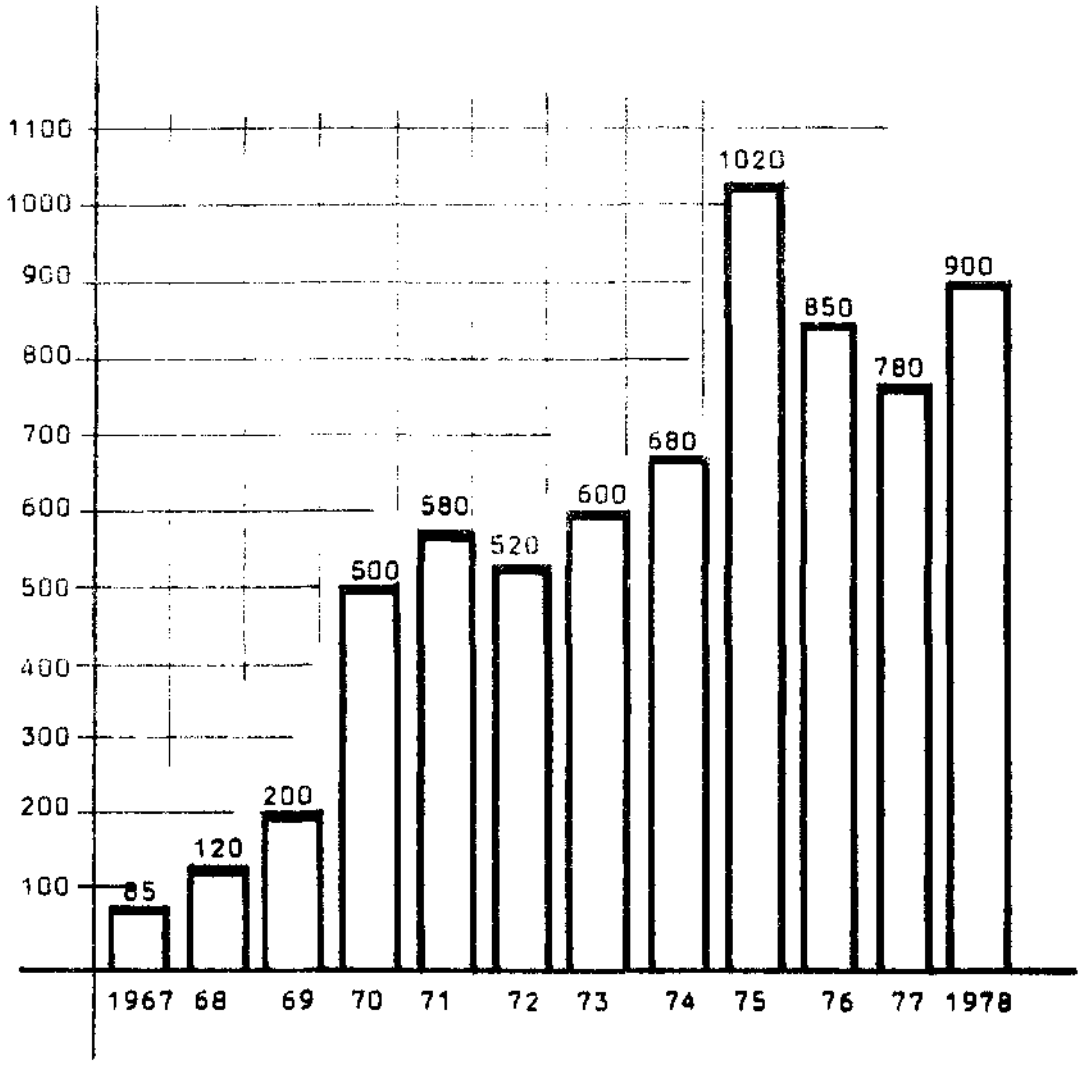
AN EXAMPLE OF LINE GRAPH

Showing production over a period of time
(comparative)



PROJECT FOR TRAINING OF
COOPERATIVE TEACHERS IN SRI LANKA
455 Galle Road, Colombo-3

AN EXAMPLE OF A BAR GRAPH

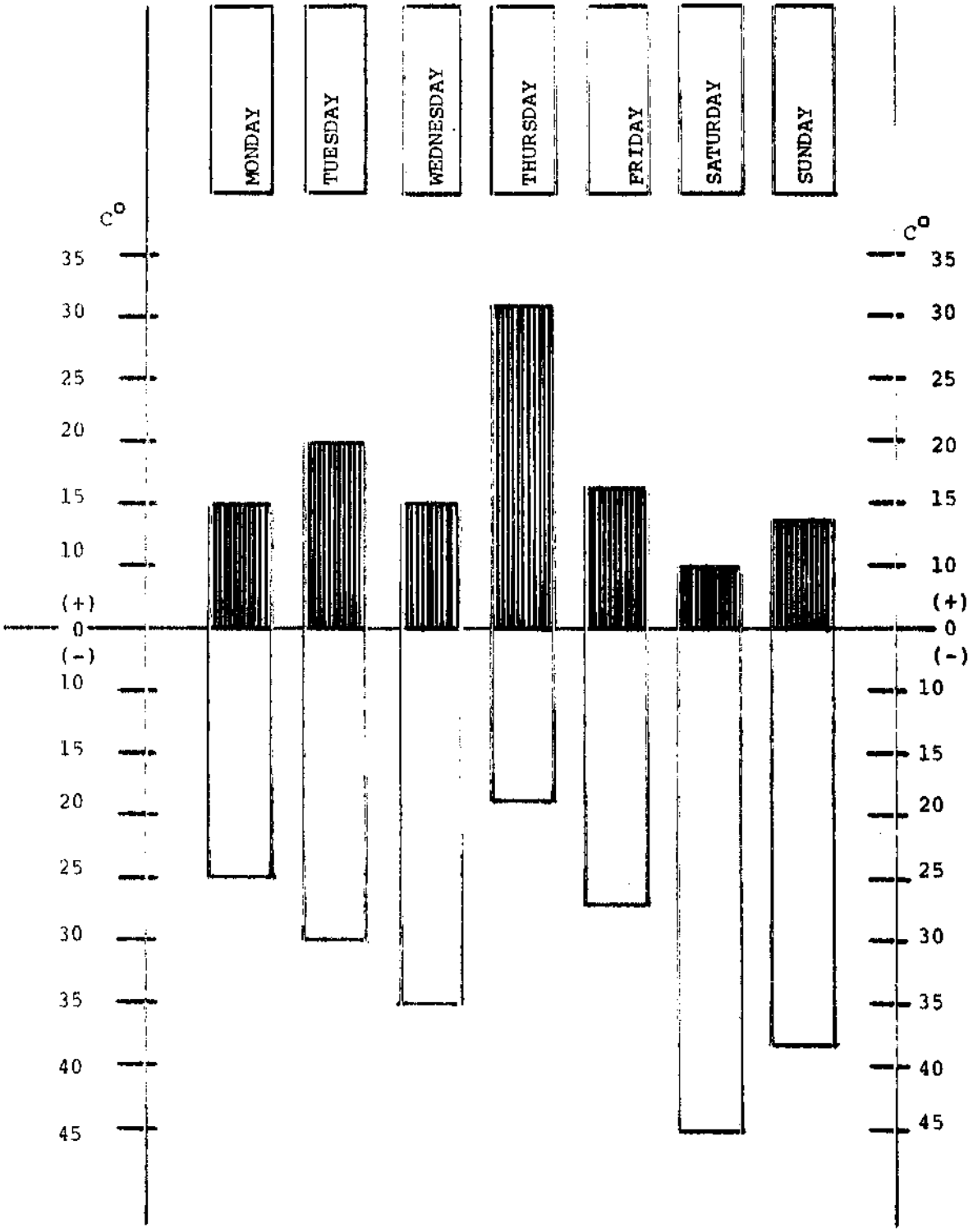


Price of 10gms of gold. Variations in price over the years.

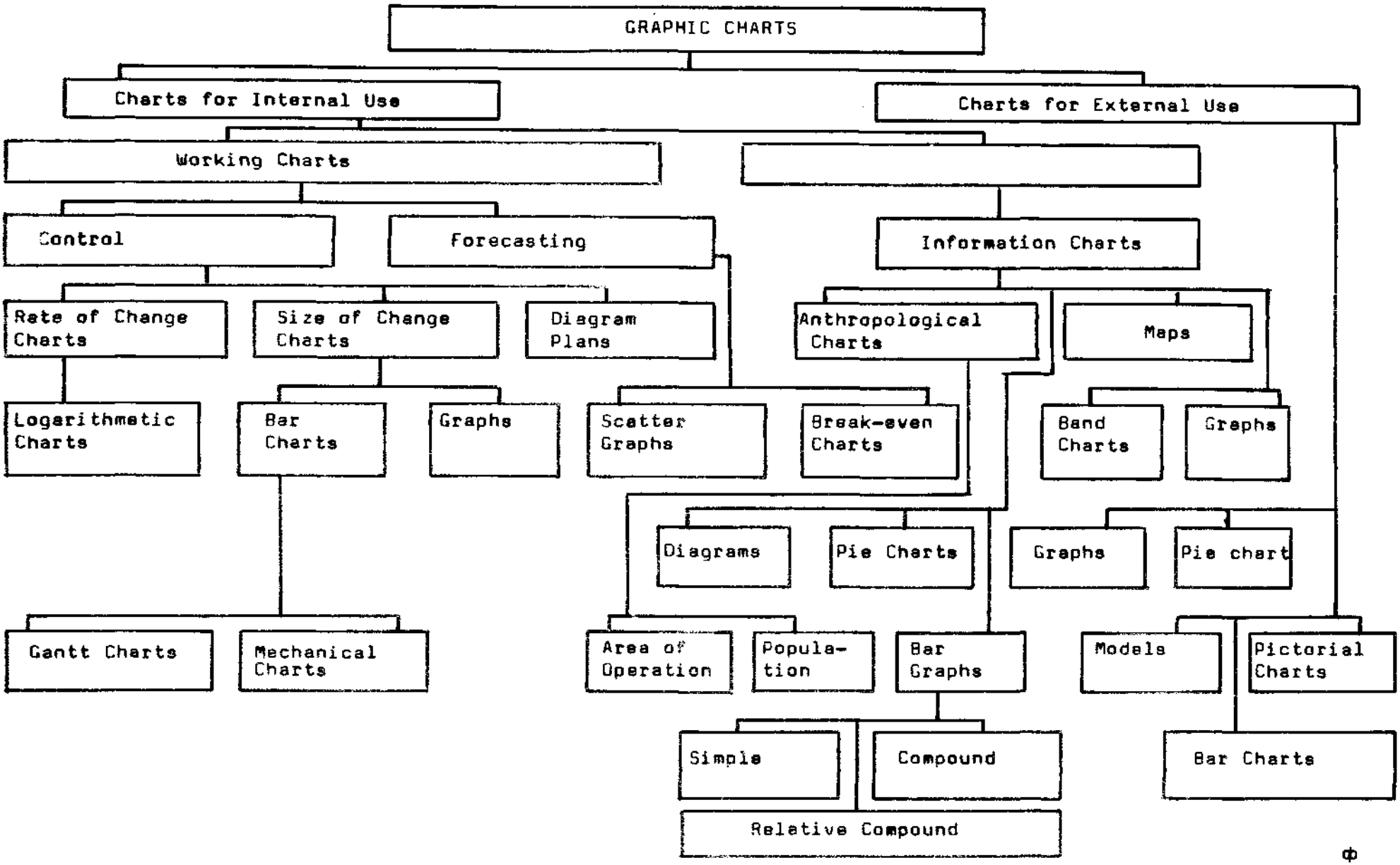
During the past 10-12 years the price of gold had been constantly rising. The yellow metal has now gone out of the reach of ordinary citizens. In 1975 the price was Rs.1020 per 10gm, and in 1978 it was Rs.900. The lowest was Rs.85 in 1967, and then it started going up. It was Rs.120 in 1968, Rs.200 in 1969, Rs.500 in 1970, Rs.580 in 1971. It came down to Rs.520 in 1972, and then leaped upwards - Rs.600 in 1973, Rs.680 in 1974 and 1975 was the worst - Rs.1020 per gm. It came down to Rs.850 in 1976, Rs.780 in 1977 only to go up to Rs.900 in 1978. We are still not sure what will be the end. The highest price recorded was perhaps due to some breakdown in the international world market.

AN EXAMPLE OF
USING A BAR GRAPH

WEEKLY TEMPERATURE
RECORDING BAR GRAPH

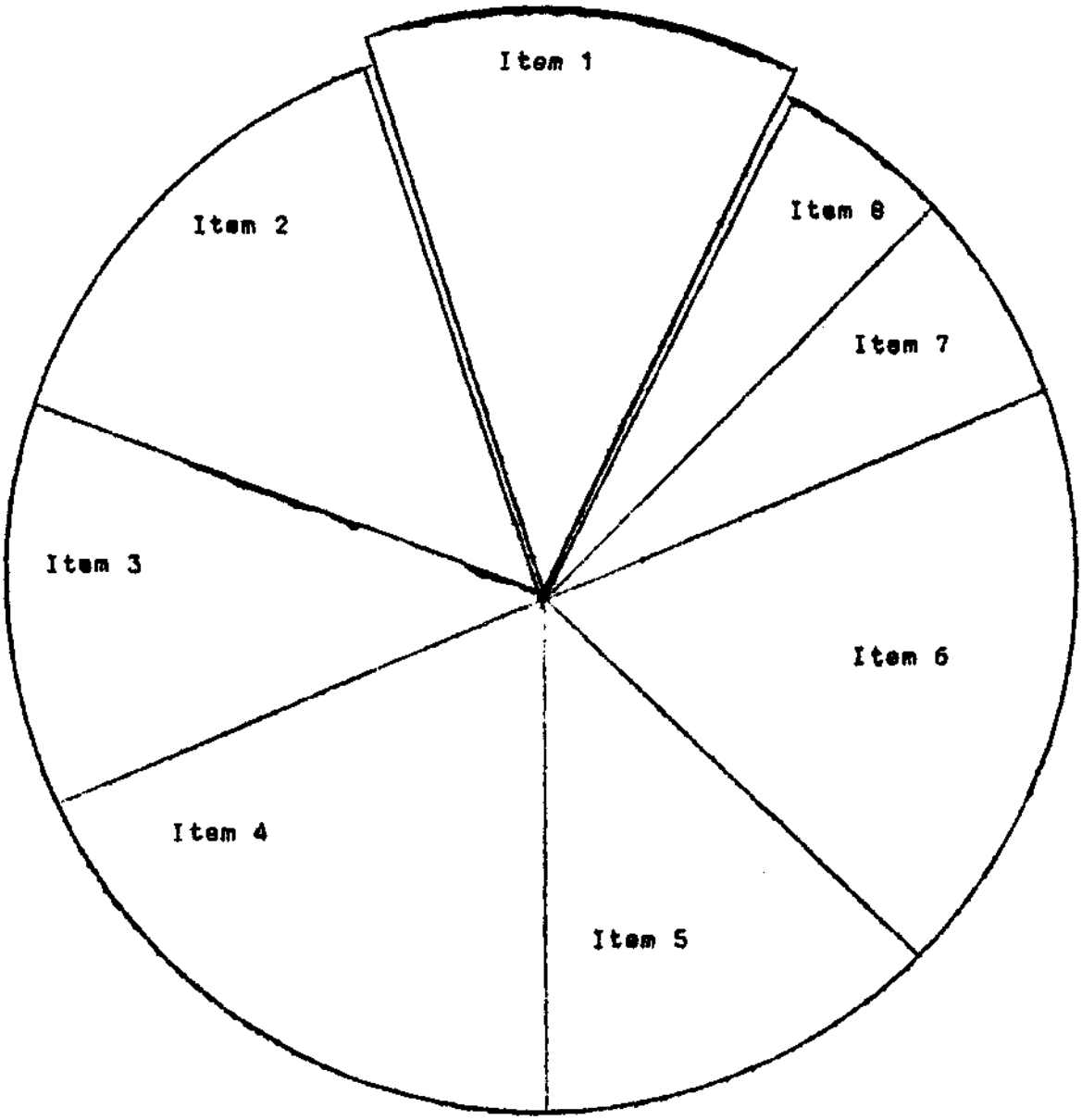


CLASSIFICATION OF GRAPHIC CHARTS (BUSINESS)

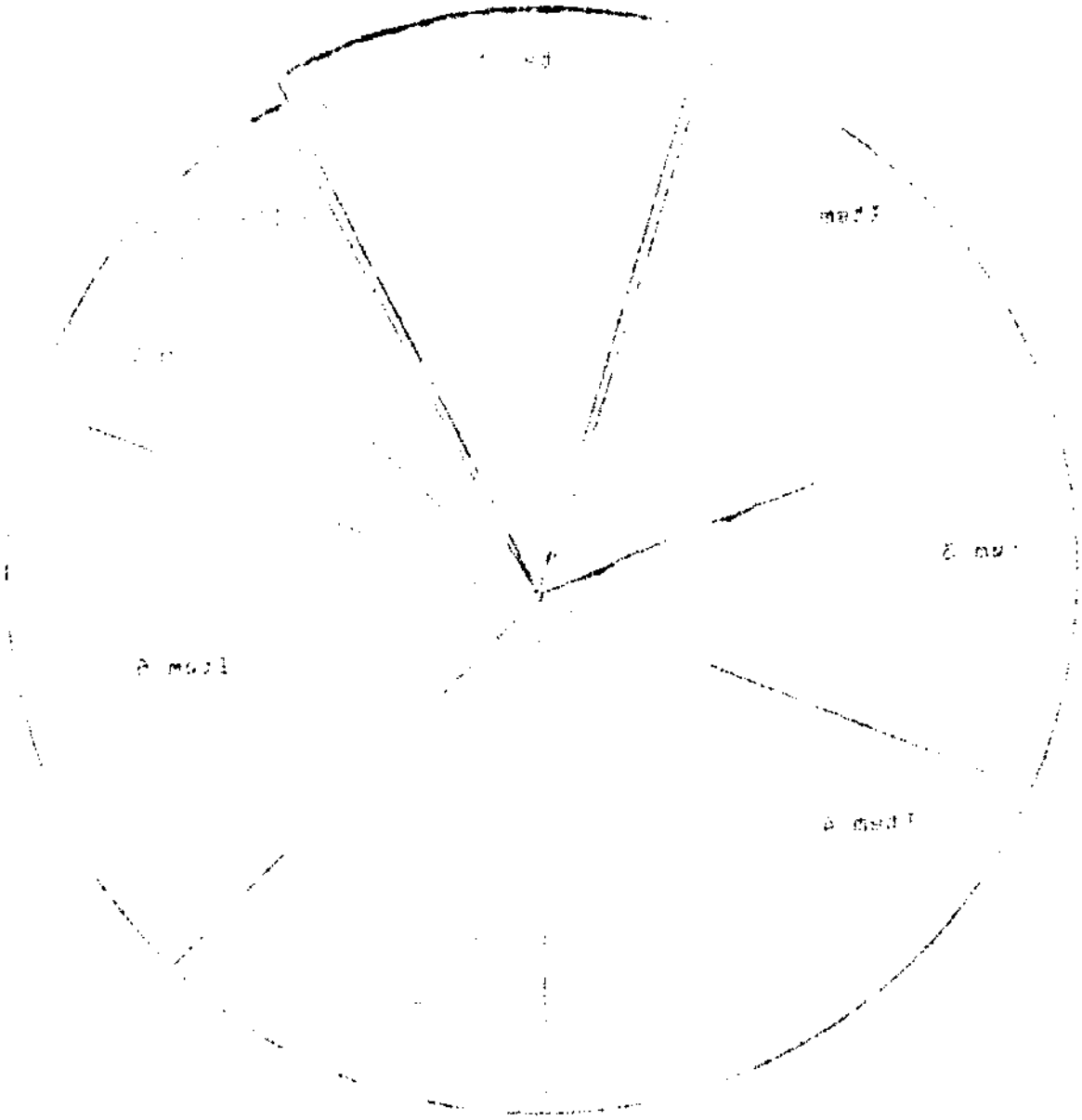


AN EXAMPLE OF A CIRCULAR GRAPH (FACTUAL GRAPH)

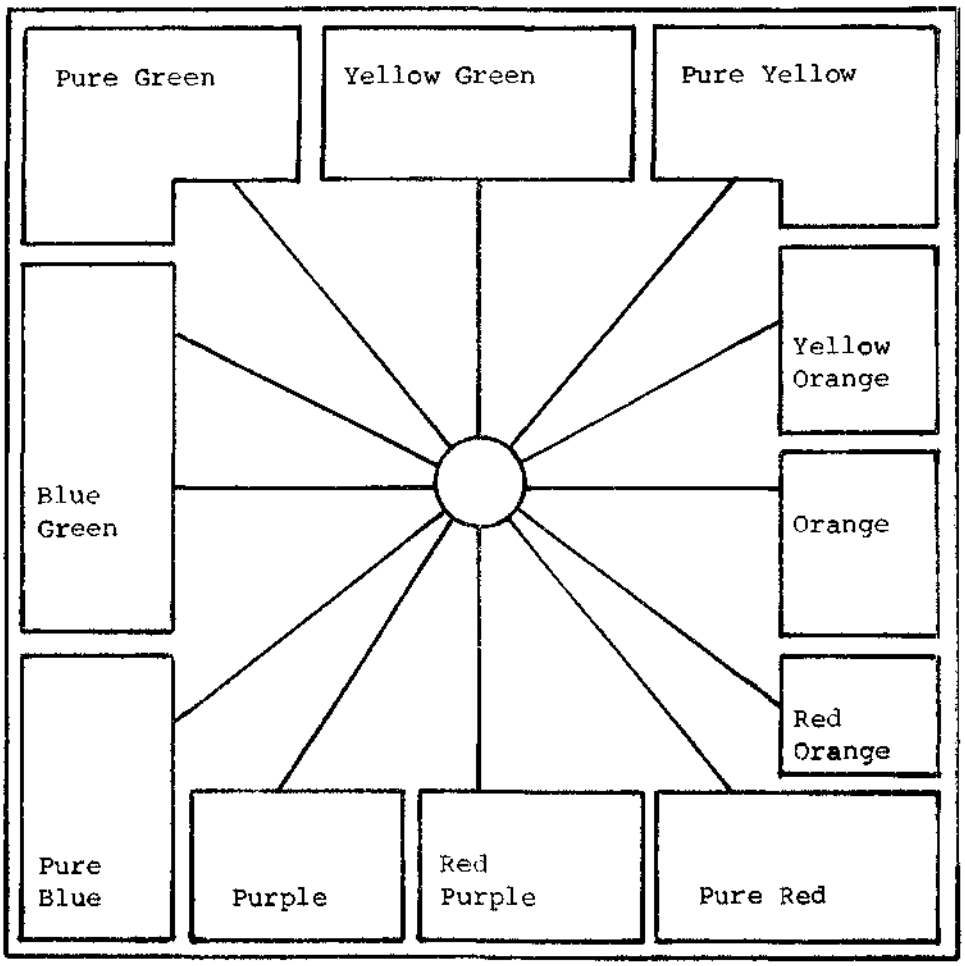
Showing distribution of money (profits etc.)



(The total circle could be the total amount, and the segments represent the allocations.)

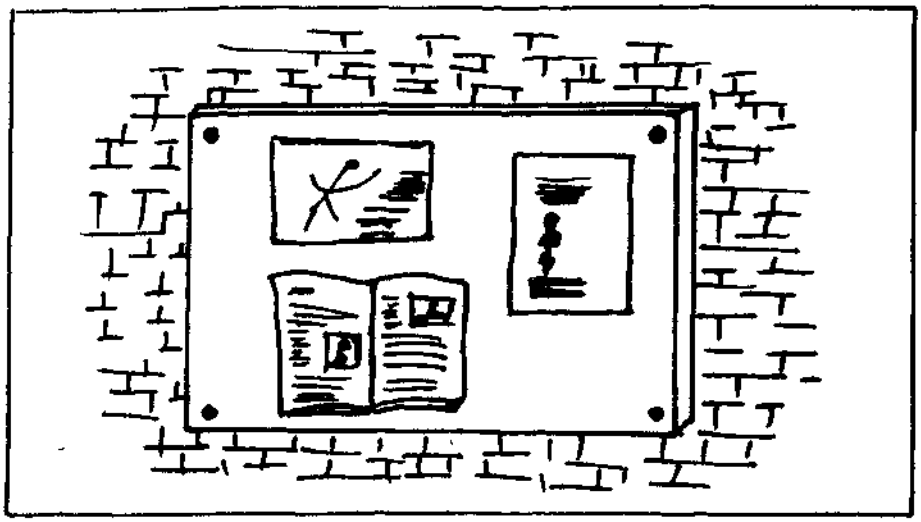


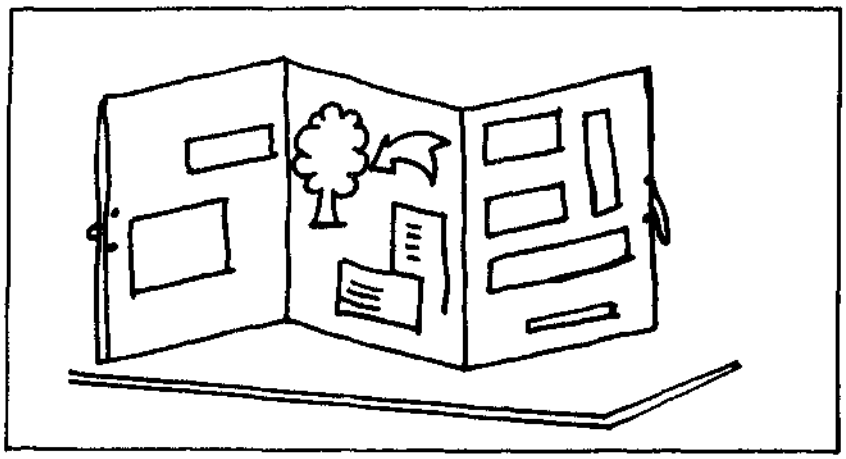
USE OF COLOURS IN GRAPHICS

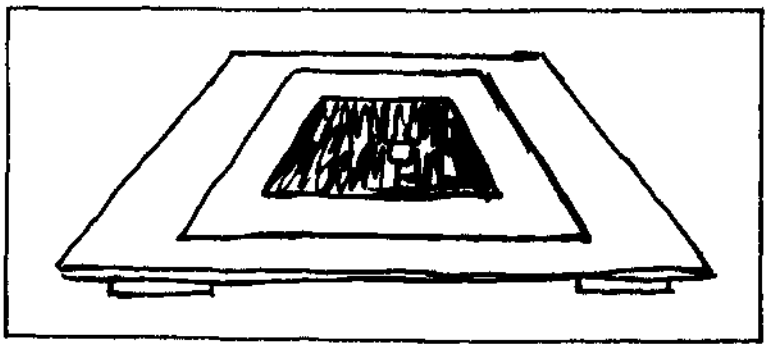


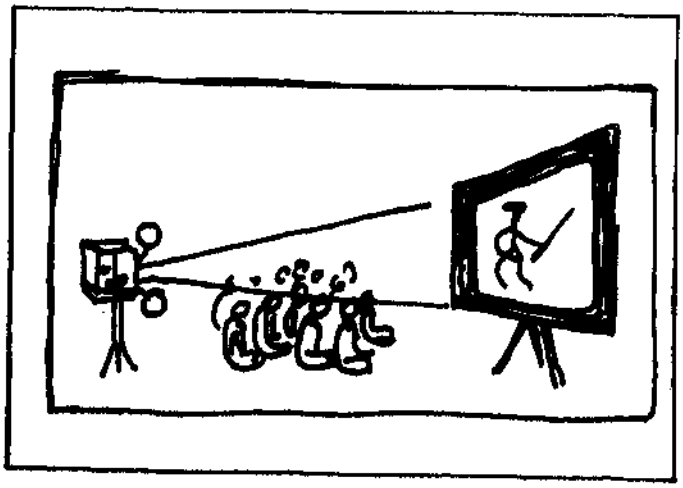
There is magic in the use of colours. Sometimes people use fast colours and present them with a contrast.This is no doubt good, but a better scheme will come out if a magic is brought in the use of colours. Use light colours. Use them properly and artistically. Very attractive work will emerge if a combination from the 11 colours suggested above is achieved.

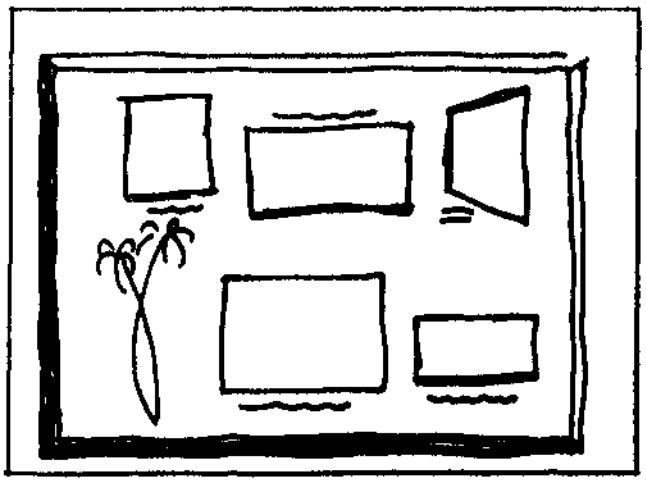
A good general rule of using colours in producing attractive graphic material is:
"KEEP IT SIMPLE".











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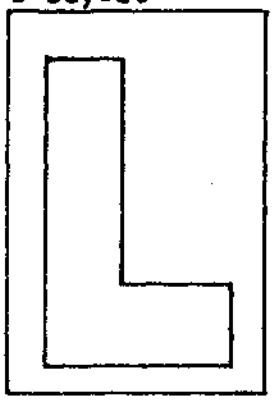

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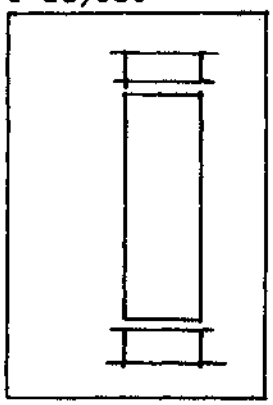
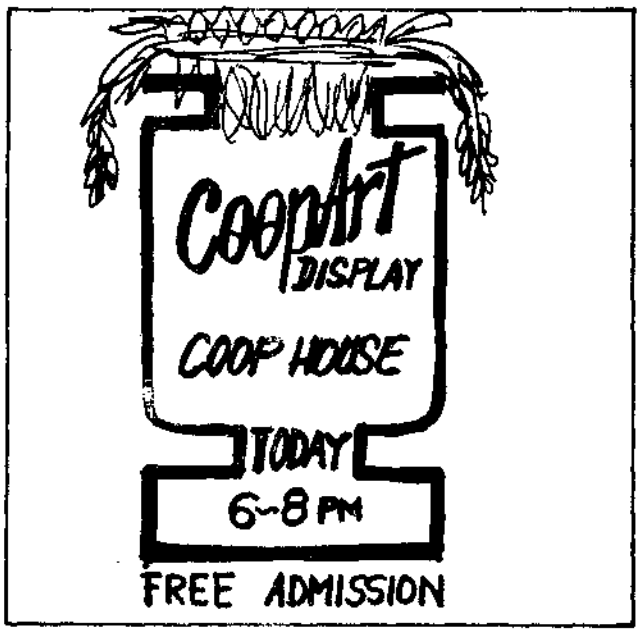
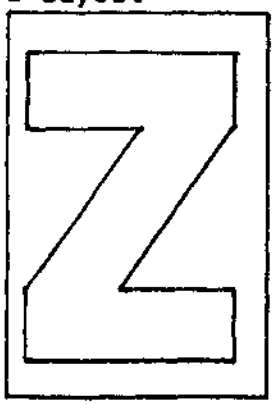




Z Layout



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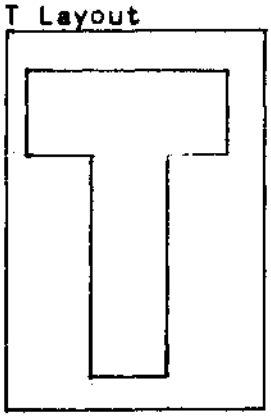

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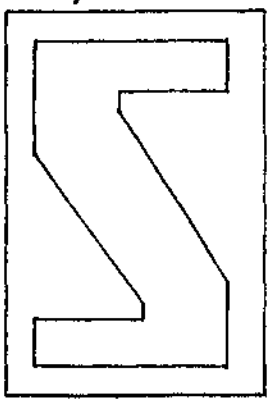
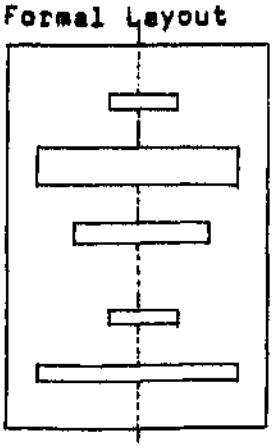
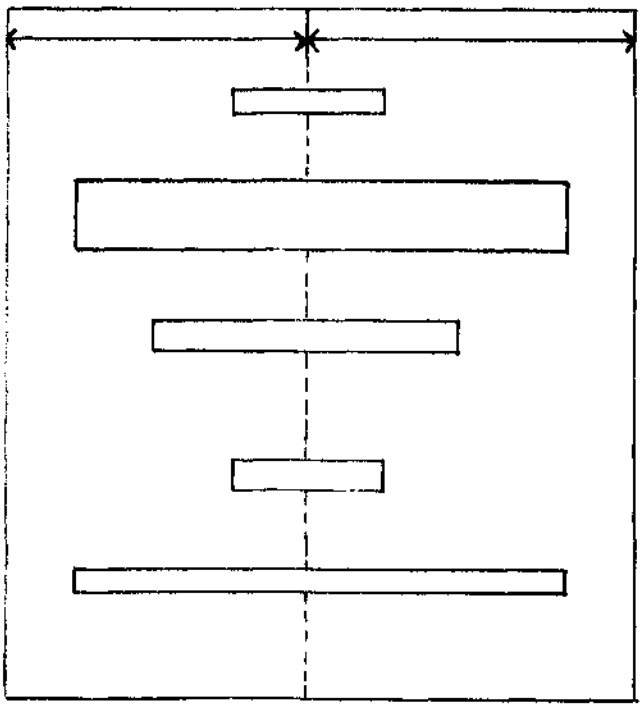


Formal Layout





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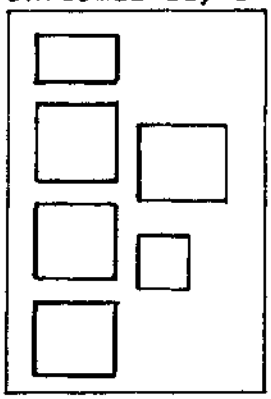

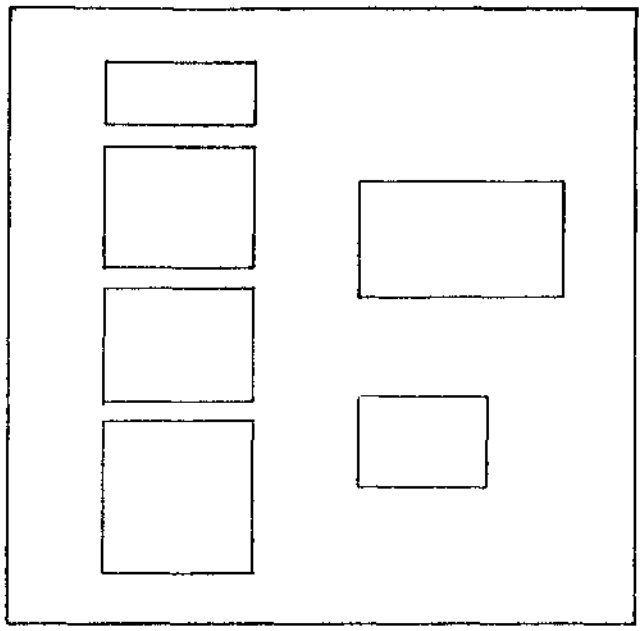

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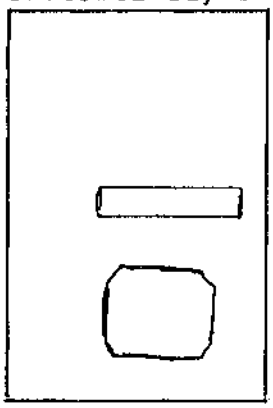
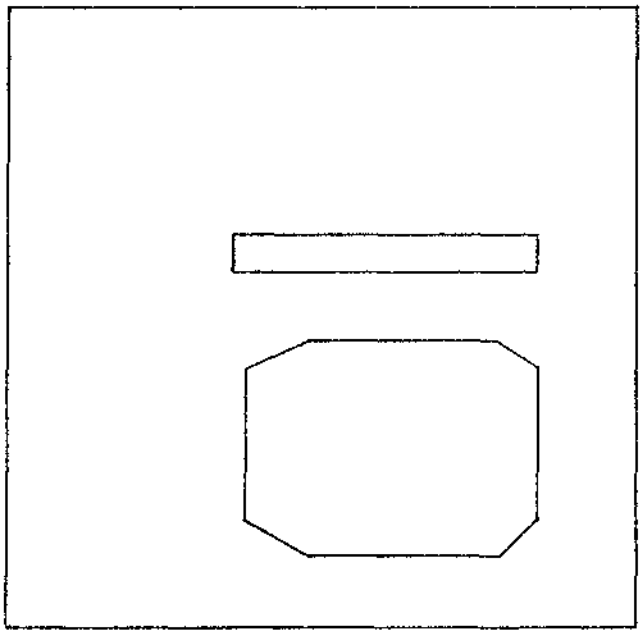
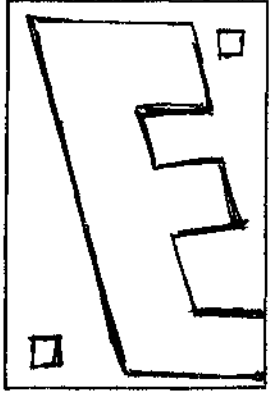
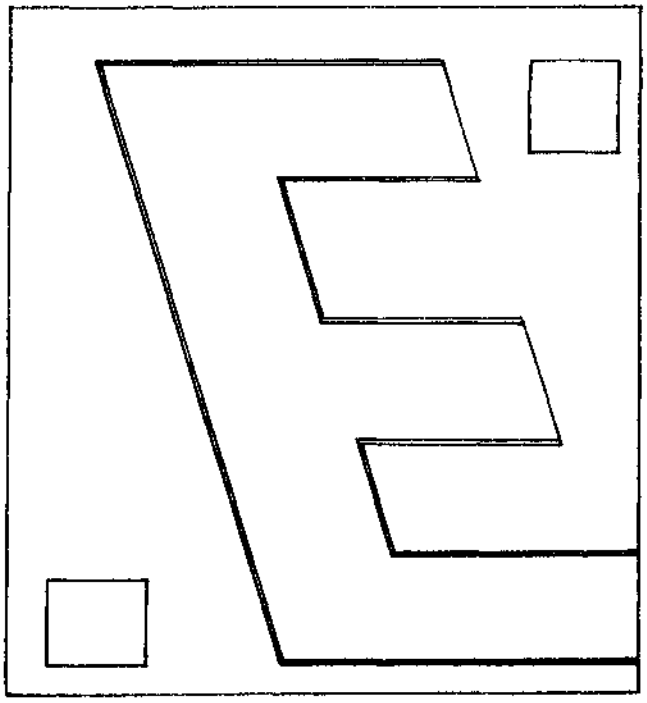




Informal Layout





CHAPTER

EXPERIMENTS IN VISUALISATION

08

Introduction

01 The role of graphic aids and projected aids in education and training cannot be overemphasised. The graphic and projected aids, or commonly called the audio-visual aids, help the teacher in establishing a better communication with his audience. The audio-visual aids also help the teacher in holding the attention of his audience. The importance of using audio-visual aids in cooperative education and training, community development work, extension, adult education etc. is further highlighted when the teacher or the extension worker has to encounter a hetrogenous group or a group which is not properly educated. In such situations, the teacher has to rely on some simple graphic sketches and illustrations. It is in this context that the present chapter has been prepared.

Every individual is an Artist

02 Every individual is an artist. The talent is inborn and very few people are able to exploit the hidden talent. Each one can draw some picture, sketch some illustration or produce some fine characters. Some people can write beautiful letters (A, B, C, G, Z etc.) but they may not be able to draw some figures - human figures or animal figures. If some guidance and training is given to such persons, maybe we would be able to develop a combination of the two arts in one person and then make him design good posters, charts, or some pamphlets.

03 We do not stress on giving a long-term training courses in drawing, human figures or other technical matters. We do not have the time and resources to offer such training programmes to our cooperative trainers and cooperative extension workers. We can only give them some general ideas so that they could develop these ideas further and communicate their ideas to their audience. In such a situation training material like the EXPERIMENTS IN VISUALISATION would come handy.

Visualisation

04 By visualisation we mean to produce some visual symbols from the textual communication. With this process we make our own job less complicated. By using one symbol or visual we can get rid of using 1000 words. Remember the old saying 'One Picture is Worth 1000 words'. So why use 1000 words and why not use one single photograph or a simple picture or illustration! Then what should a picture be like? Should it be detailed and complicated? No. We speak here of simple illustrations and simple pictures and simple visuals. Human figure should not necessarily have all the wrinkles on the face, or the eyelashes and other finer details. The illustration should be such as to give an impression of a human being - a man or a woman or a child. Just have a look at the following pages and you will understand what we are trying to say.

05 Each line has a meaning. Each curve means something. Each dot conveys something. You can obtain different meaning by placing the picture differently or by giving it some small twist. Stick figures can be made to walk, run, jump and sleep and so on. So why not try these!

06 Small illustrations mean so many things. The examples given here can be used in several contexts. Study them. Copy them. Enlarge them. Change them and play with them. You do not have to have an elaborate equipment or sophisticated machines and materials. All that you need is a pencil, an eraser, a foot-ruler and a few blank sheets. When you have some free time, you can make use of this material and keep yourself busy.

07 Do not please gather the impression that this material is only to keep you busy. It is useful professionally as well. As part of the training programmes you will be exposed to several situations involving construction of visual aids and their use. This material will give you a good understanding of using lines, curves, small illustrations, human figures etc. So have a careful look at the following pages.

EXPERIMENTS IN VISUALISATION

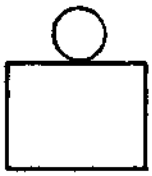
Downward

Between

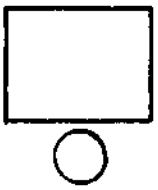
Inside
Within

Into

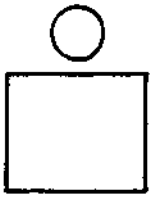
On
Upon



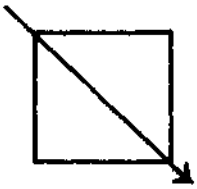
Under
Below



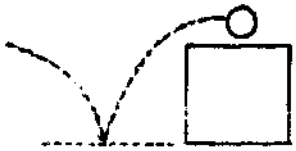
Over
Above



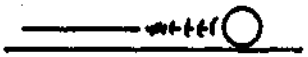
Across



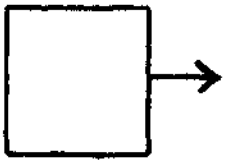
Onto



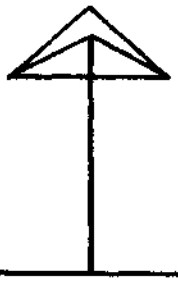
Along



From
Away From



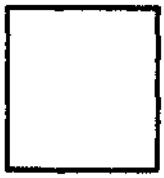
Upward



EXPERIMENTS IN VISUALISATION

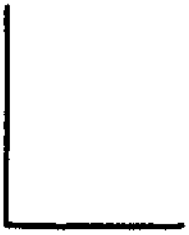
Square Form

This shows the equality of interest, sense of conformity



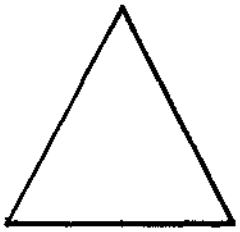
L Shape

This means opposition of interests, Guru standing and the disciple touching the feet



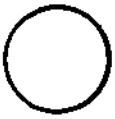
Trangle Shape

Means unity of interests



Circle Shape

This means continuous process, indicates progress, gives continuity and unity

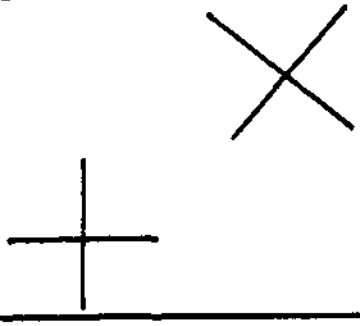


S Shape

An indication of grace, beauty, love, effiminacy

Cross Shape

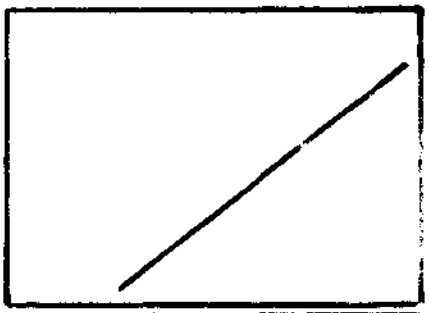
This indicates the merger of interests, etc.



EXPERIMENTS IN VISUALISATION

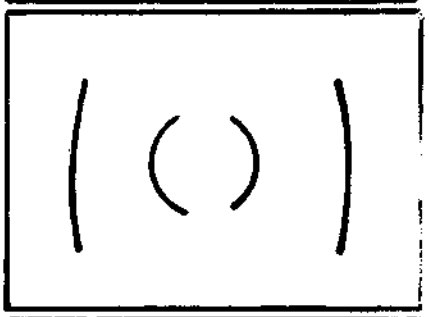
Straightlines

They indicate directness, rigidity, firmness



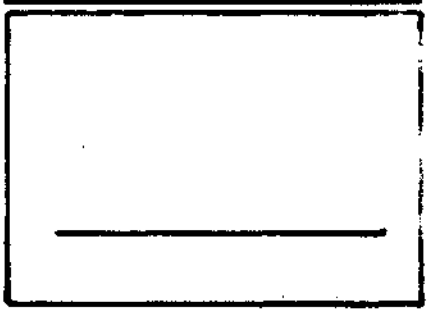
Curved Lines

They give grace, beauty, feminity, softness, smoothness, tenderness



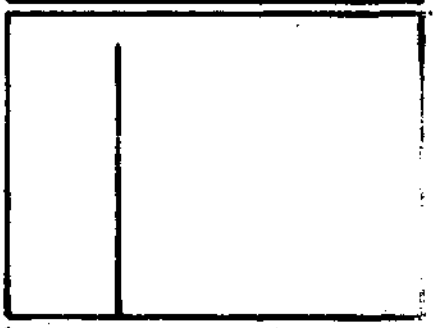
Horizontal Lines

They indicate rest, repose, laziness, infirmity



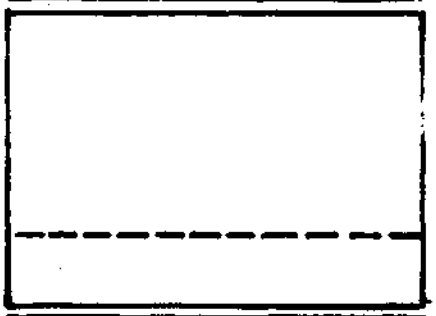
Vertical Lines

They mean aspiration, determination, challenge, confidence, manhood, high thinking



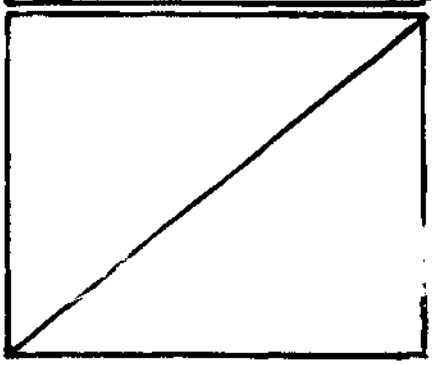
Broken Lines

They mean indicision, weakness, fickle-mindedness, trend breakers



Diagonal Lines

They represent force, action, advancement, progress



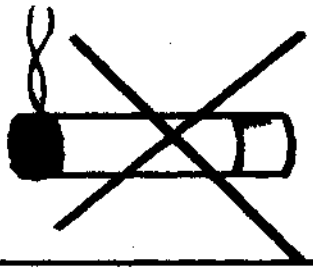
EXPERIMENTS IN VISUALISATION

Burning Lamp

A symbol of education, wisdom enlightenment, knowledge

Burning Cigarette with a cross

A symbol of NO SMOKING AREA

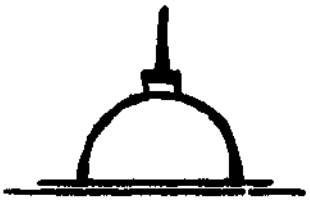


Burning Torch

A symbol of School, educational institution

Daghab

A symbol of Buddhist Temple

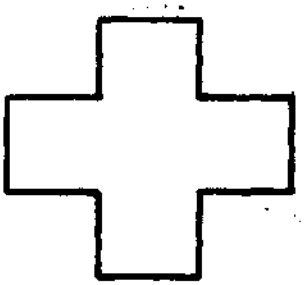


Skull with two crossed bones

A symbol of danger, warning, caution

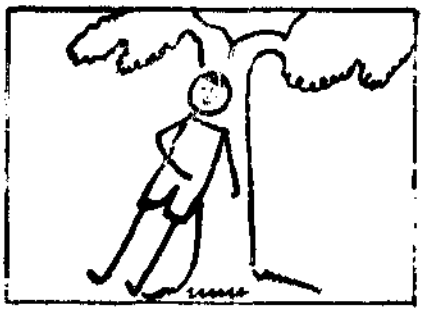
Cross painted in red

A symbol of Hospital, nursing home, Red Cross Society



EXPERIMENTS IN VISUALISATION

A slightly slanted human figure here gives the impression of a man standing against a tree.

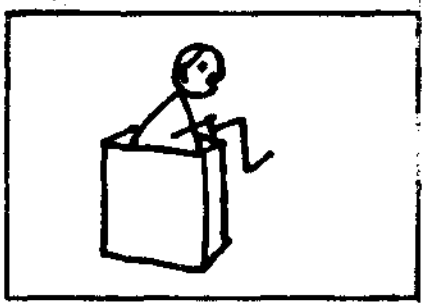


Around

A dotted circle drawn around the tree with a human figure running closeby gives the impression of the man running around the tree.

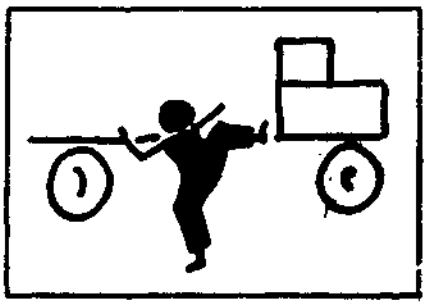
Inside

The human figure here seems to be inside the box. By placing one of his legs slightly outside the box gives the impression that he is trying to get out.



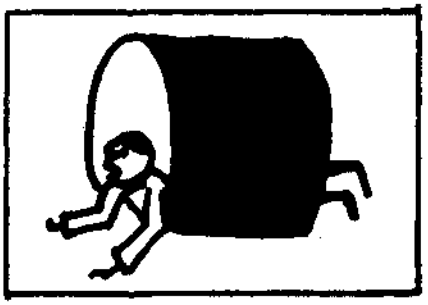
Onto

Here the human figure appears to be getting on to the truck.



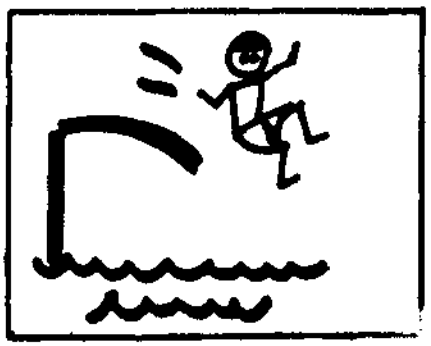
Within

Only the head and the legs are shown which gives the impression that the man is within the pipe and that he is trying to get out of it.



Jump

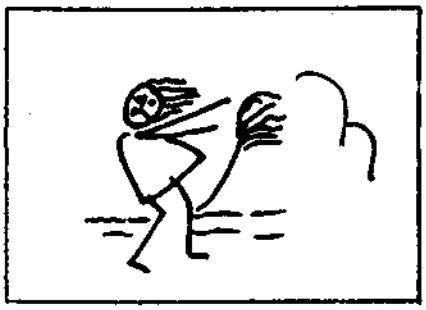
Here the man is jumping into the swimming pool from the spring board.



EXPERIMENTS IN VISUALISATION

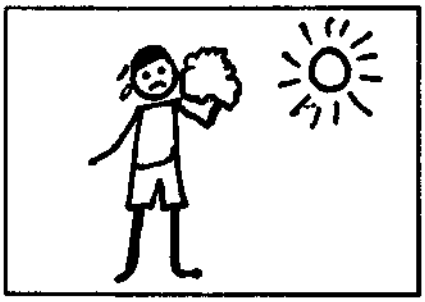
Blowing

The flow of the hair, dress and the palm leaves give the impression of a strong wind.



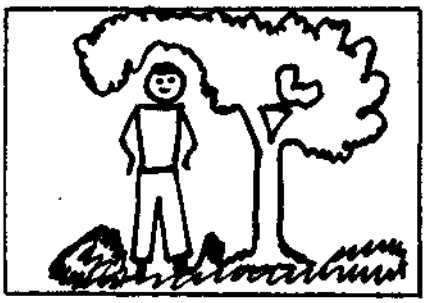
Hot

A piece of cloth in the hand and the rays of the sun give the impression of it being very warm. The man is apparently perspiring.



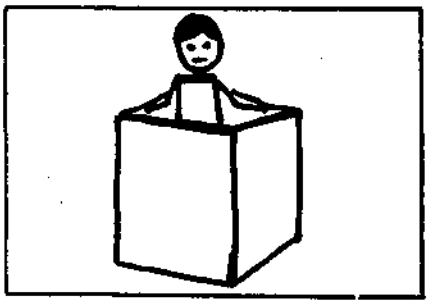
Under

The man is under a shady tree. The very placement of the human figure under the tree give the feeling of freshness and peace and comfort.



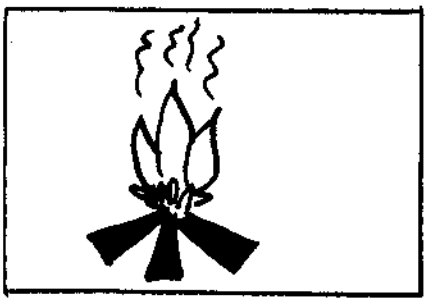
Inside

Here the man appears to be right inside the box. Apparently he is standing inside the box.



Fire

Three big logs and a flame give the impression of the fire and the heat that it radiates.



Sweep

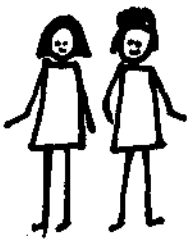
Broomstick in the hands of a woman. The figure gives the impression of a busy housewife.

Under

The boy is hiding under a table. No particular details of the table are shown, but the message is understood even by making use of very simple figures and lines.

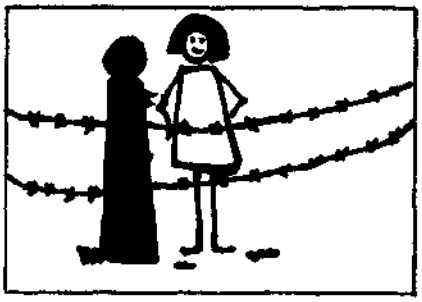
Together

The girl together with her mother are going out together. They are not seperate. They appear to be together if a proper distance between the two persons is maintained.



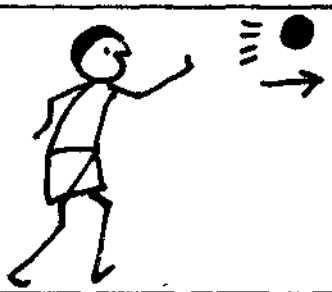
Close by

The girl is standing close to the fence tower. She is not too far.



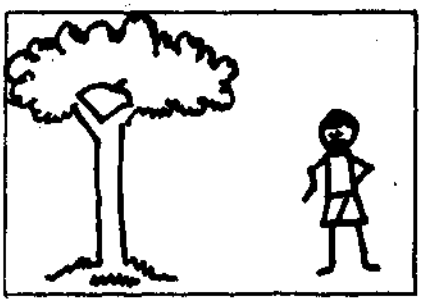
Over to you

The ball is bounced back to another person.



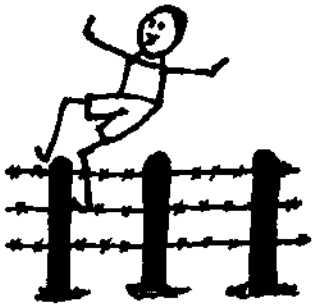
Near

The boy is standing very near to the tree. He is neither too far nor too close. He is just near the tree.



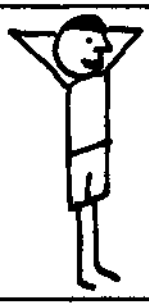
Over

The boy is trying to jump over the fence.



EXPERIMENTS IN VISUALISATION

A simple human figure.
Probably standing and
thinking!



Now lying down. Perhaps taking
some rest. WATCH OUT! It is
the same figure as above.

Now he is sitting.

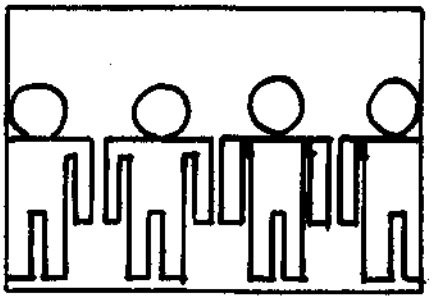
A small blanket has been
pulled over his body. Apparently
the man is tired and is now
sleeping.

Going out for a walk, perhaps.
It is a brisk walk, not a usual
walk. Watch his hands and
legs. Taking big paces!

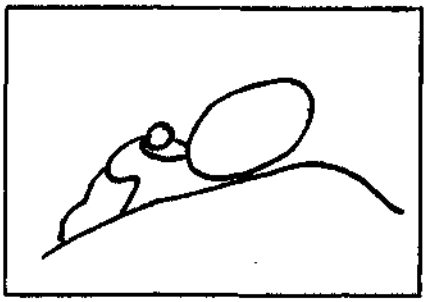
And now in the play ground.
He is happy now with his
football. A smart kick has
sent the ball high spinning!

EXPERIMENTS IN VISUALISATION

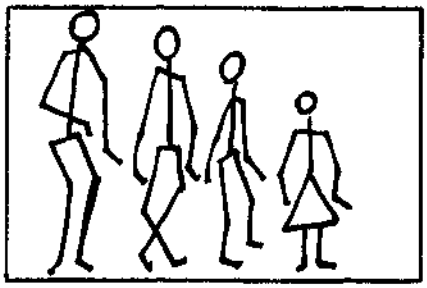
Human figures can also be drawn in this fashion.



The man is trying to push a stone uphill. Surely it is an Uphill Task!

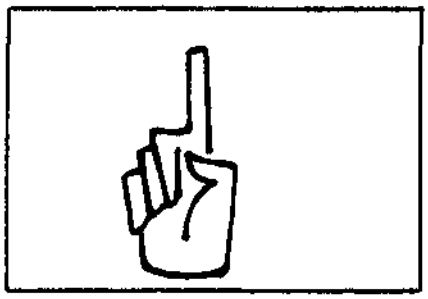


A family of stick figures. The father, mother and the two children - all in a row!



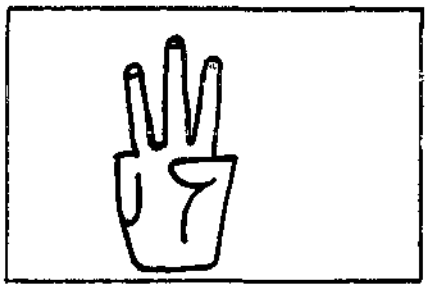
Point No. One

First!!



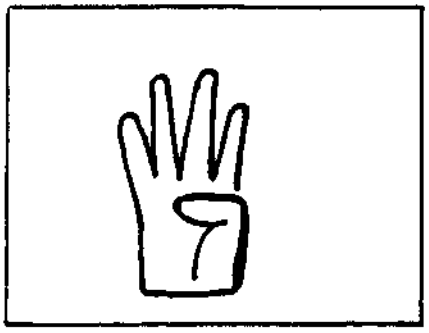
Now point No. Three

Thirdly!!



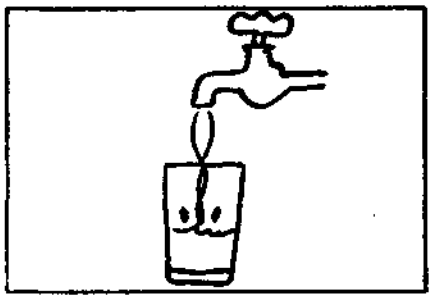
And then point No. Four.

Fourthly!!



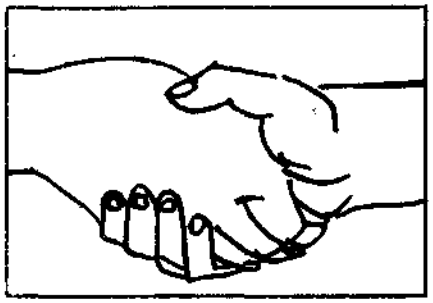
EXPERIMENTS IN VISUALISATION

A very simple figure to demonstrate the flow of water from the tap to the glass.



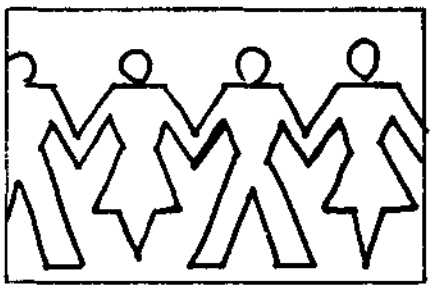
COOPERATION
BROTHERHOOD

- A symbol of friendship and Cooperation!



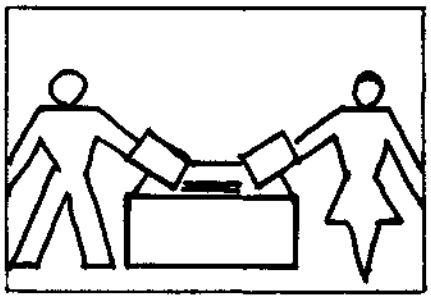
MEMBERSHIP
UNITY

Men and women of any caste, creed, religion and belief become members of cooperatives.



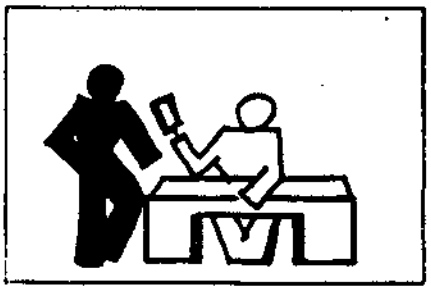
DEMOCRACY

Men and women enjoy the right to vote. They elect their own managing committees and other bodies to run their cooperative stores.



MANAGEMENT

The manager discusses a point with his staff member.

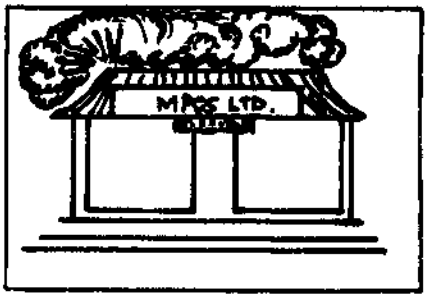


SALESMANSHIP/BUSINESS

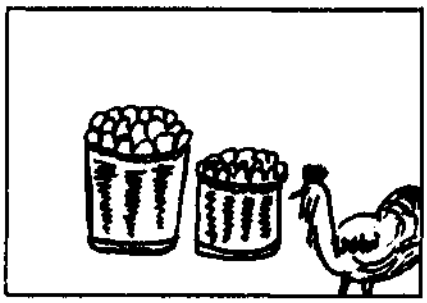
The salesmanship is transacting a business with a woman member of a cooperative store.

EXPERIMENTS IN VISUALISATION

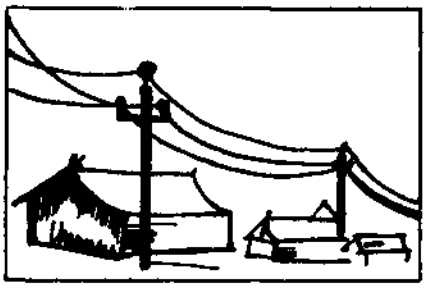
This is how a small cooperative society looks like in a rural area. This picture is a representative of Multipurpose cooperative societies!



The chicken and the eggs.



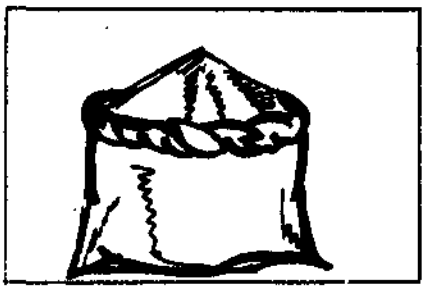
A rural scene. Electric wires dominate the horizon of a rural setting.



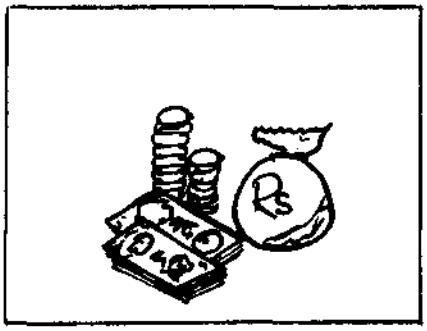
A typical cluster of huts in rural Thailand! Rural cooperatives are also housed in such houses.

A bag full of fertilizer!
A bag full of wheat flour!!
A bag full of rice.

You have the bag - you fill it with anything that is available!

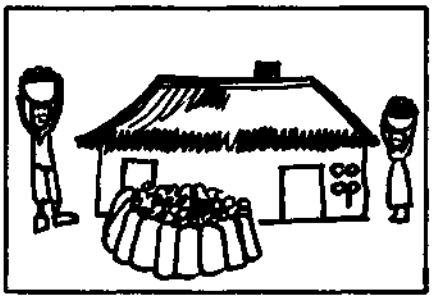


A big heap of money - currency notes and coins. Also a bag full of small change.

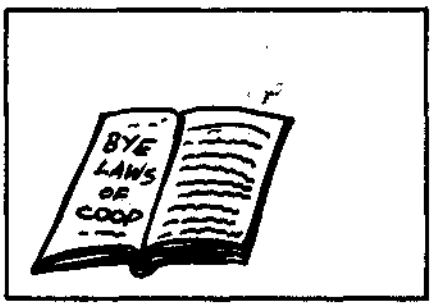


EXPERIMENTS IN VISUALISATION

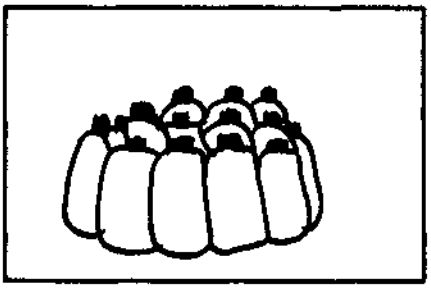
Producers bring their produce to the collection centre of a cooperative society.



The byelaws of a cooperative society. The book can also be called: book of rules; book of procedures; ledger, pass book.

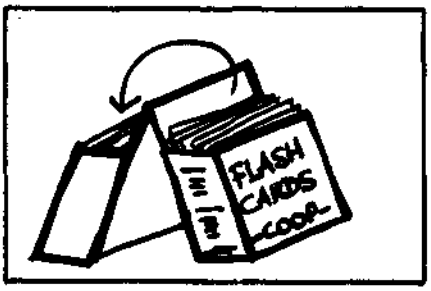


Gunny bags full of rice ready for transportation. You can put anything in these bags - maize, coffee seeds, spices, rice-flour, wheat or even fertilizer.

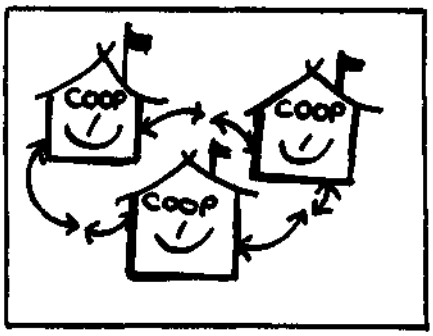


A cluster of small huts in a Central Indian village. They are not too different from other rural huts in other countries!

A training package! A set of flash-cards ready for use at a meeting. After the use these cards can be repacked in the box.



Together we Prosper. Inter-cooperative cooperation. Cooperatives also can get together and form their own associations and stand together on a common platform.



SELECT BIBLIOGRAPHY

CHAPTER 09

MODERN TEACHING AIDS - A Practical Guide to Audio-Visual Techniques in Education. Atkinson, Norman J. Maclaren and Sons Limited, London.

AUDIO VISUAL AIDS FOR COOPERATIVE EDUCATION AND TRAINING. Botham, C.N., Published by the Food and Agriculture Organisation, Rome.

TRAINING AND DEVELOPMENT HANDBOOK. Craig and Bittle. Published by the American Society for Training and Development and McGrew Hill Book Company, New York.

AUDIO-VISUAL METHODS IN TEACHING. Edgar Dale. Published by Dryden Press, Holt and Rinehard and Winston, New York.

COMMUNICATION AND THE COOPERATIVE TEACHER. Daman Prakash. Published by International Cooperative Alliance Regional Office, New Delhi.

AN INTRODUCTORY COURSE IN TEACHING AND TRAINING METHODS FOR MANAGEMENT DEVELOPMENT (Management Development Manual 36). Published by International Labour Organisation, Geneva.

LEARNING AND HUMAN ABILITIES - EDUCATIONAL PSYCHOLOGY. Klausmeier, Herbet J. Published by Harper and Row, NY.

METHODS AND TECHNIQUES FOR TEACHING. Kochhar. Published by Sterling Publishers, New Delhi.

TEACHING TECHNIQUES IN ADULT EDUCATION. Michael Stephens and Gordon. Published by David and Carles, Newton Abbot.

EXTENSION IN RURAL COMMUNITIES. Savile, A.H., Published by Oxford University Press, London.

VISUAL AIDS - THEIR CONSTRUCTION AND USE. Weaver, Gilbert G. and Bollinger, Eiroy W. Published by D.Van Nostrand Co., Princeton, New Jersey and New York.

TEACHING TECHNIQUES WITH SPECIAL EMPHASIS ON THE USE OF AUDIO-VISUAL AIDS - Manuscript of a Training Package. Daman Prakash and others. Published by International Cooperative Alliance (CEMAS), New Delhi.

TECHNIQUES FOR PRODUCING VISUAL INSTRUCTIONAL MEDIA. Minor and Fry. Published by McGraw Hill, New York.

AV INSTRUCTION TECHNOLOGY MEDIA AND METHODS. Brown, Lewis and Harcleroad. Published by McGraw Hill, New York.

HANDBOOK FOR PREPARING VISUAL MEDIA. Ed.Minor. Published by McGraw Hill, New York.

AN INTRODUCTION TO LETTERING. R.Greer. Published by Pitman's Publishing Limited, London.

EFFECTIVE COMMUNICATION MADE SIMPLE. Eyre. Published by W.H.Allen and Company, London.

PRINCIPLES AND METHODS OF TEACHING. Bhatia. Published by Doaba House, New Delhi.

INNOVATIONS IN TEACHING LEARNING PROCESS. Chauhan. Published by Vikas Publishers, New Delhi.

GRAPHIC COMMUNICATION. Browman. Published by John Wiley and Sons, New York.

TEACHING AND TRAINING : A HANDBOOK FOR INSTRUCTORS. H.R.Mills. E.L.B.S. and McMillan Press, London.

EDUCATIONAL PSYCHOLOGY. Pintner. Published by Barnes and Noble Books, New York.

EDUCATION AND EDUCATION OF THE TEACHERS. Peters. Published by Barnes and Noble Books, New York.

IN THE WONDERLAND OF INDIAN MANAGERS. Prabhu. Published by Vikas Publishing House, New Delhi.

THE MODERN PRACTICE OF ADULT EDUCATION. MalColm Knowles. Published by Association Press, New York.

THE MANAGEMENT OF LEARNING. Ivor K. Davies. Published by McGraw Hill, London.

In addition to the above, several pamphlets and brochures on Training Aids, Training Methods etc., are also issued by several organisations. Some of the more prominent are:

BRITISH COUNCIL'S AUDIO-VISUAL AIDS CENTRE, Tavistock House, Tavistock Square, London.

INTERNATIONAL LABOUR ORGANISATION'S TRAINING CENTRE, via Ventimiglia 201, Turin. Italy.

INTERNATIONAL COOPERATIVE ALLIANCE'S (CEMAS) COOPERATIVE EDUCATIONAL MATERIAL ADVISORY SERVICE, London, New Delhi and Moshi.

INTERNATIONAL LABOUR ORGANISATION'S MATCOM PROJECT, Vienna International Centre, P.O. Box 500, ... A-1400 Vienna (Austria).

HOW TO USE THE HANDBOOK

CHAPTER 10

This chapter is for the use of teachers and communicators who will organise training programmes for trainers. The training programme could be termed as 'Use and Production of Simple Teaching Material in Cooperative Training and Education'.

Duration of the programme: Approximately 2 weeks (10 working days)

Number of participants: Approximately 15-20 persons

Suggested time-table:

The Handbook consists of 10 chapters. These are:

01 Communication Process and Communication Media
02 Chalkboard Utilisation
03 Flannelgraph
04 Flipboard
05 Lettering Techniques
06 Drawing Simple Figures
07 Posters, Charts and Graphs
08 Experiments in Visualisation
09 A Select Bibliography
10 How to Use this Handbook.

These chapters can be discussed in the workshop in the following manner:

First day (Monday)	Introduction to Communication Process and the media.
Second day (Tuesday) (Morning)	Introduction to Chalkboard, its construction, utilisation
	Practice on the use of Chalkboard (Illustrating the good points and pointing out to cautions)
(Afternoon)	Introduction to Flannelgraph, its construction and Utilisation.
	Practice on the Use of Flannelgraph (Illustrating the good points and pointing out to cautions)

Third day (Wednesday) (Morning)	Introduction to Lettering Techniques (Illustrating how to write letters, demonstration and utilisation)
(Afternoon)	Assignment to participants to write (a) the English letters A-Z, 3" high and 2" wide and ½" thick; (b) the Sinhala/Tamil letters - about 15 letters - of the same dimensions as in case of English letters.
Fourth day (Thursday) (Morning)	Lettering assignment to be continued and discussions on results concluded before the end of Morning session.
(Afternoon)	Drawing Simple Figures, Introduction and illustrations.
	Assignment to participants to make 10 simple illustrations of various kinds of figures. (The participants could continue to carry on with their assignments in the evening so that they could be briefly discussed next morning)
Fifth day (Friday) (Morning)	Discussion on Lettering Techniques assignments for about one hour.
(Morning) contd	Posters, Charts and Graphs, Introduction and illustrations.
	Assignment to participants to make (a) one poster, (b) one chart, and (c) one graph.
(Afternoon)	The assignment could continue over Saturday and Sunday, so that the material produced could be discussed on Monday morning.
	The assignments could be of free choice, but the teacher can give broad guidelines.

Sixth day (Saturday)	Assignments to continue.
Seventh day (Sunday)	Free day.
Eighth day (Monday) (Morning)	Discussion on assignments on Posters, Charts and Graphs for about 2 hours. The teacher is to point out the high points and desirables in the work done by the participants.
(Morning) contd	Experiments in Visualisation. This is mainly for practice and for further understanding. The teacher has to give a broad summary of the work already done and prepare the participants for the forthcoming assignments.
(Afternoon)	ASSIGNMENTS. The teacher has to explain to the participants about an actual situation on which to construct the training material using the media explained earlier. The situations could be from their own teaching experiences. The participants could be asked to prepare a set of training material using the media discussed earlier - all of them or a few of them. Each participants should be asked to produce at least one complete set of material.
Ninth day (Tuesday)	Assignment (contd)
Tenth day (Wednesday)	Assignment (contd)
Eleventh day (Thursday)	Assignment (contd)
Twelfth day (Friday) (Morning)	Display of material produced. Programme Evaluation
(Afternoon)	Conclusion of the Programme.
Evaluation of the Programme	The teacher can produce an evaluation proforma or get two of the participants to produce an evaluation proforma.

Evaluation report	The teacher could compile a brief evaluation report with the help of one or two of the participants and discuss the main points with the participants before they leave the venue of the programme.
Revision and improvements to the Handbook	Based on the experiences of the teachers and on the reactions from the participants, the teacher can improve and/or revise the contents of the Handbook. Any suggestions and comments on the contents of the Handbook should be communicated also to the Project.

Important

It should be kept in mind that the teacher while introducing the various aids, should not do so merely by talking and assuming. He should prepare some visual aids himself so that the participants gain a confidence in the teacher.

Any revision/suggestion to the contents of the Handbook should please be communicated also to:

The Project Director
COOPERATIVE TEACHERS' TRAINING PROJECT
(National Cooperative Council of Sri Lanka)
455 Galle Road, Colombo-3. Sri Lanka