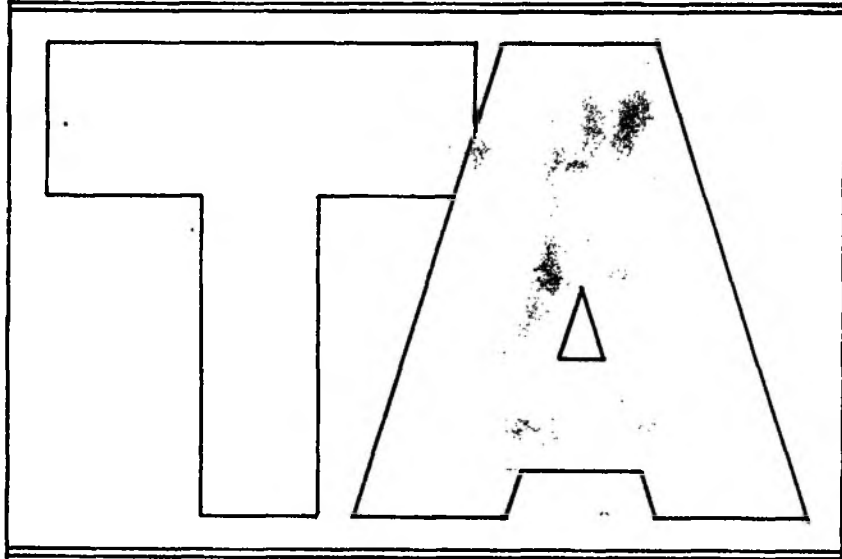


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Daman Prakash

TRAINING MATERIAL

14.1.82.



TRAINING AIDS :
A HANDBOOK FOR COOPERATIVE TRAINERS

DAMAN PRAKASH



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(MANUSCRIPT)

Daman Prakash
- Personal Copy -

T R A I N I N G A I D S

- A HANDBOOK FOR
COOPERATIVE TEACHERS

DAMAN PRAKASH

COOPERATIVE EDUCATION MATERIALS
ADVISORY SERVICE (CEMAS)
INTERNATIONAL COOPERATIVE ALLIANCE, LONDON

TRAINING AIDS
- A HANDBOOK FOR COOPERATIVE TEACHERS

First Edition (in Sri Lanka) 1980

Second Edition (CEMAS-ICA London) 1982

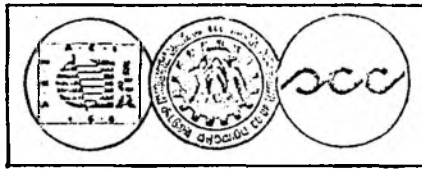
Mr Daman Prakash is the Cooperative Education Officer (Audio-Visual Aids) with the International Cooperative Alliance Regional Office for South-East Asia. He was seconded to work in Sri Lanka (1978-81) with the ICA-SCC Cooperative Teachers' Training Project as its Technical Advisor (AV Aids). Since July 1981 he is on secondment with the ILO-UNDP Cooperative Training Project in Indonesia as its Technical Advisor (Training Aids and Material Production).

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TRAINING AIDS :
A HANDBOOK FOR COOPERATIVE TEACHERS

C O N T E N T S

Communication Process and Communication Media	01
Chalkboard	...	...	24
Flannelgraph	...	...	29
Flipboard	...	...	41
Lettering Techniques	...	...	52
Drawing Simple Figures	...	...	66
Graphic Aids : Charts, Posters, Graphs and Display Material	...	...	88
Experiments in Visualisation	...	...	111
Select Bibliography	...	...	126
How to Use the Handbook	...	...	128



Project for Training of Cooperative Teachers in Sri Lanka

(National Cooperative Council of Sri Lanka)

Cooperative House, 455 Galle Road, Colombo-3

F O R E W O R D

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 as 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 1 1980.

INTRODUCTION

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 educational instructor/field educator still more difficult and delicate.

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, flannel-graphs 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 and exposures the educators should be encouraged to produce simple audio and visual aids, learn their application and assess their effectiveness and usefulness.

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 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 and in the techniques of transferring their knowledge. Such teachers need training in communication methods and materials.

The International Cooperative Alliance (ICA) and the Swedish Cooperative Centre (SCC) have jointly sponsored a Project for Training of Cooperative Teachers in Sri Lanka in collaboration with

the National Cooperative Council of Sri Lanka (NCC). The Council operates 27 district cooperative education centres which offer Cooperative Employees' Certificate Examination Courses (Ordinary Level and Advance 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 training material. Training courses in Audio-Visual Aids were obviously of great importance and relevance.

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".

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 include 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 material production unit which is to undertake production and distribution of training material.

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 ICA-SCC's international technical assistance to the Cooperative Movement of Sri Lanka.

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 & Education Centre for South-East Asia - and its authorities who enabled me to work with the Project in Sri Lanka. I appreciate this very much as this opportunity gave me a chance to work in the field and with the people who really matter.

I thank my Project Director, Mr Upali 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 classroom, field and in the office to develop our training material and future projections.

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 really 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.

Daman Prakash
Technical Advisor-AVA

TTP, Colombo-3,
December 01 1980.

Introduction

O1 Researchers in communication technology and experience of trainers and educators have shown that audio-visual techniques can significantly increase and reinforce learning. Visual aids must be carefully designed to support a lesson and suit a particular audience and situation. The planning and preparation of such aids require time, thought, organisation 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 training aid;
- Evaluating the effectiveness and revising the aid for future use (evaluation and improvement).

O2 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-MATTER : Effects required in presentation e.g., surprise, shock, dramatisation. Building up of the subject-matter gradually, selection of the ideal one for the subject e.g., OHP (Overhead Projector), flannelgraph;

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

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

O3 Always keep in mind the famous proverb 'One Picture is Worth 1000 Words'. An appropriate picture gives you so many interpretations, 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, and simpler they are the better.

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, transferring of information and in establishing effective dialogue with the people.

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 receiver - audience/target group - 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 (Fig. I) 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 (origination) of information;
- Coding of information;
- Transmission of information;
- Decoding of information; and
- Feedback

08 The source of information here means the information that is available for transmission and this information is obtained after research, investigation, experiments, observation, and documentation. 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 - 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 in various forms - radio signals, colour pictures, circulars, letters, illustrations, books, advertisements etc. The information thus encoded is then transmitted or sent out or distributed among people. The transmission could take any of these forms - radio broadcasts, newspapers, television, films, slides, lecture handouts, and so on. The encoded information upon its transmission is decoded by the people, which means explained or understood. The audience should be able to receive the information (message). The newspapers must reach the readers, radio 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 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, response or feedback. A course manager, would, naturally like to undertake an evaluation session at the end of the training 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. (See Figures II and III). It is the feedback which helps the programme director or producer to improve upon his product.

Information in Communication

10 Our work in the field or in the laboratory gives us some sort of experience and that experience is information. The information needs to be documented so that others who are involved in similar activities could benefit from this information and experience. A large number of institutions and individuals keep on collecting a huge amount of information daily and a continuous documentation goes on. The information is vital for all and ways should be found out how information could be passed on to the relevant people in time and without much of difficulty. Peter Drucker in this context said "Throughout the ages the problem has always been how to get communication out of information". It is the technique of communication which is important to make the information available to the people.

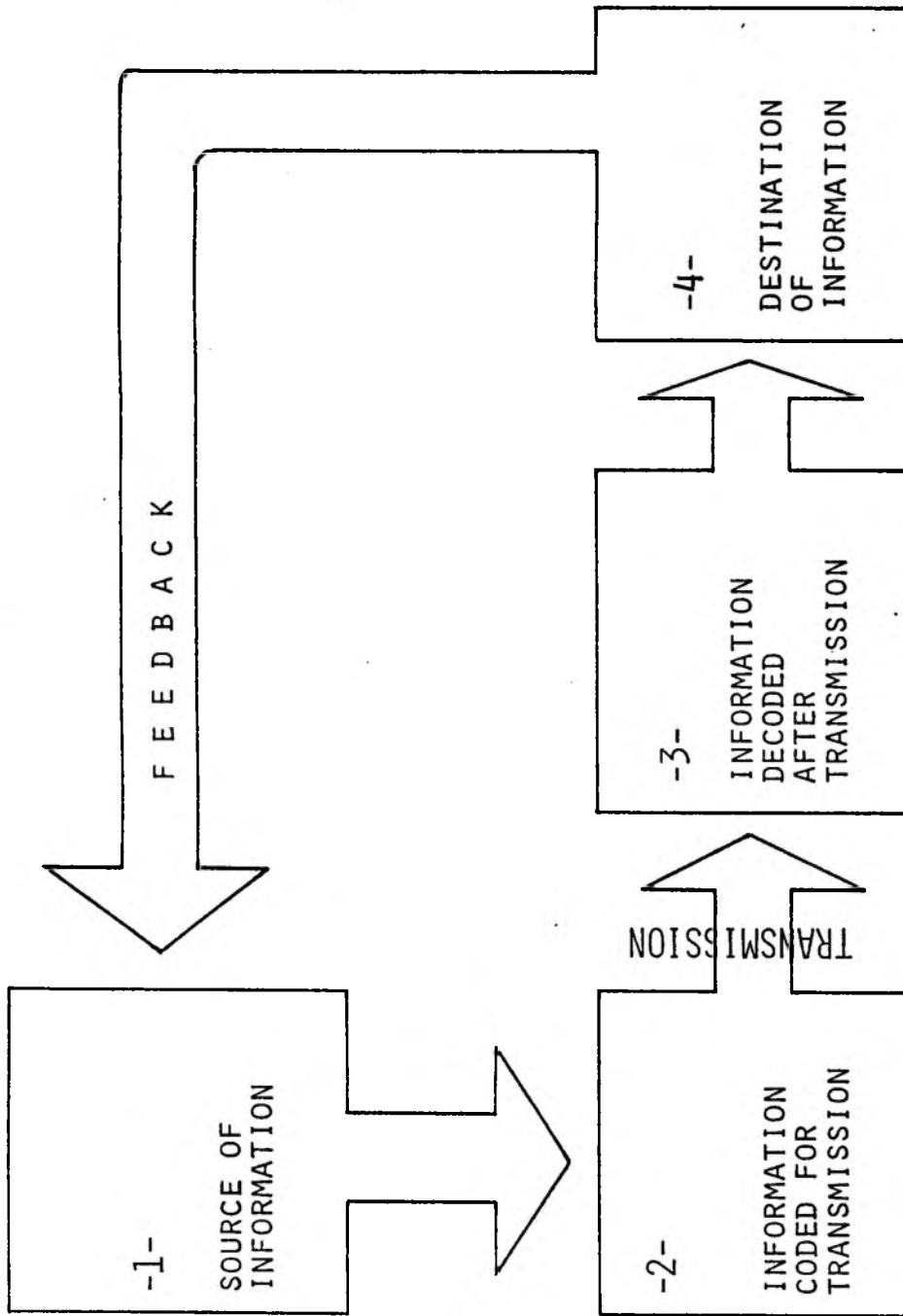
11 Information is of no use unless it flows out from its originating source, and this process is called 'communication'. However, varied the channels of communication may be, and however complex the processing of the information which flows along them, all messages are composed of the same basic information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

12 The facts which the graphic designer is concerned with in his work are no different in essence 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.

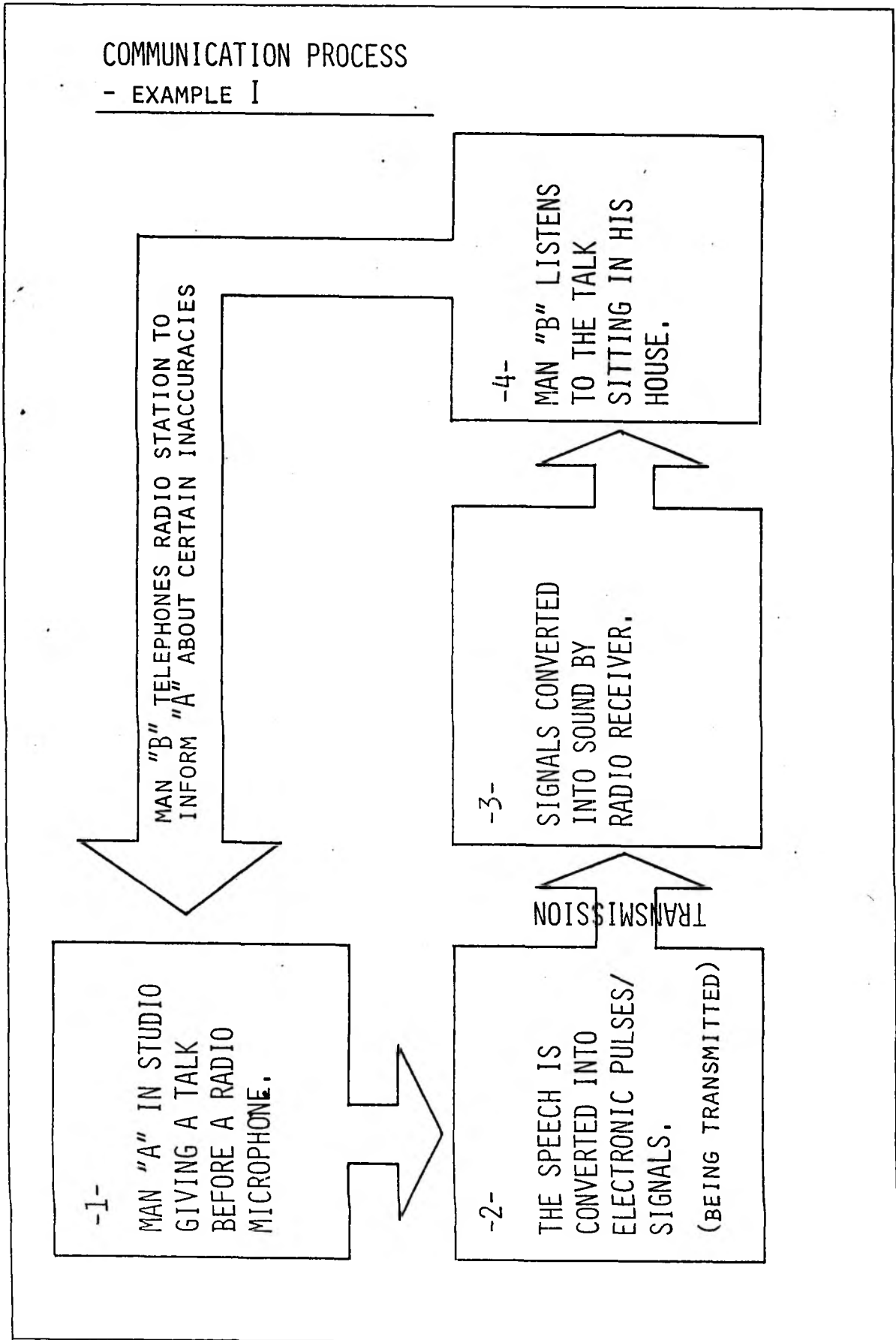
13 The graphic designer, as one of the people involved in the techniques of communication, is in danger of becoming obsessed with the nature of the techniques and of forgetting the nature of the communication itself, that is, the kind of facts, their meaning and their relationship to one another. Understanding the essence 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 upon to process them.

FIGURE I

BASIC PATTERN OF
COMMUNICATION PROCESS

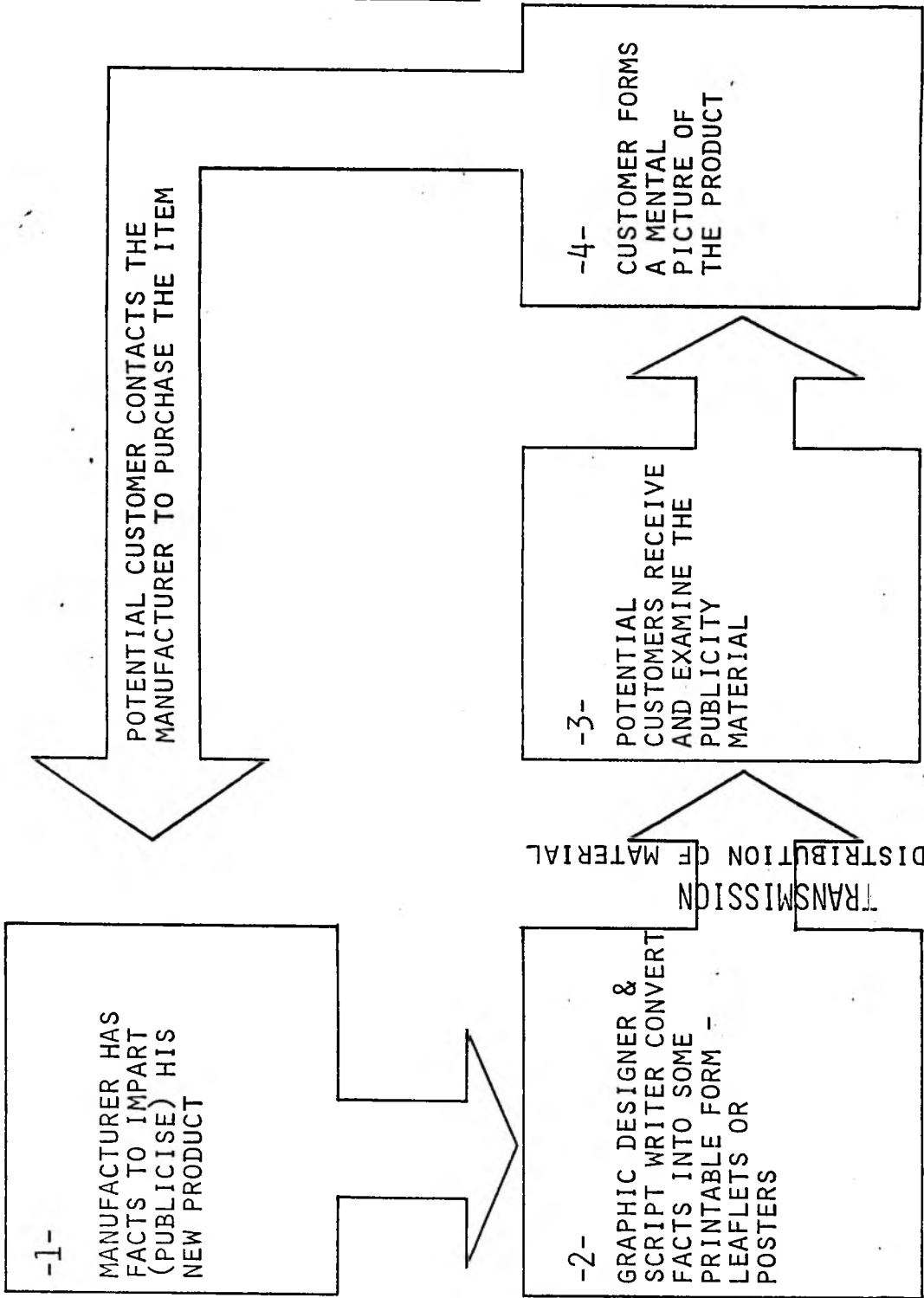


Source: Ken Garland's "Graphics Handbook", Studio Vista, London



COMMUNICATION PROCESS

- EXAMPLE II



14 Nor do the systems with which he is concerned always work in one direction only - from originator to the recipient. Many of them have FEEDBACK mechanisms by which the recipient may (consciously or unconsciously) 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 shock. Some of his favourite devices may turn out to be quite incomprehensible. Feedback is a double-edged weapon. Feedback thus helps him to readjust his approach and style. He may think of incorporating new techniques and innovations to be more acceptable and understandable.

Audience and Communication

15 Who are our clients? We are the teachers (field educators, extension workers and cooperative trainers). In the first place we have the co-teachers or co-trainers as 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 (Figure IV & V), with groups, groups communicate within themselves, we communicate with the masses. Our techniques of approach have to be in line with them. Our methods have to vary according to the type of our audience - their grouping, their levels of understanding and so on.

16 As is 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 (field educators or cooperative extension workers), the audience may consist of 20-50 people. 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, chalkboard, projectors, dramatisation, signs, signals 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'.

18 The speech or the audio aids can be explained in the following manner. We speak (Figure VI) but at the same time we make use of other parts of our body. We make use of eyes, hands, face, postures and other expressions or cues. We make use of verbal cues, visual cues and body cues. When we like a certain thing, we express our dissatisfaction or satisfaction 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 only, but we express our feelings by a mere twist of our lips or opening up our eyes a little more than usual.

FIGURE IV

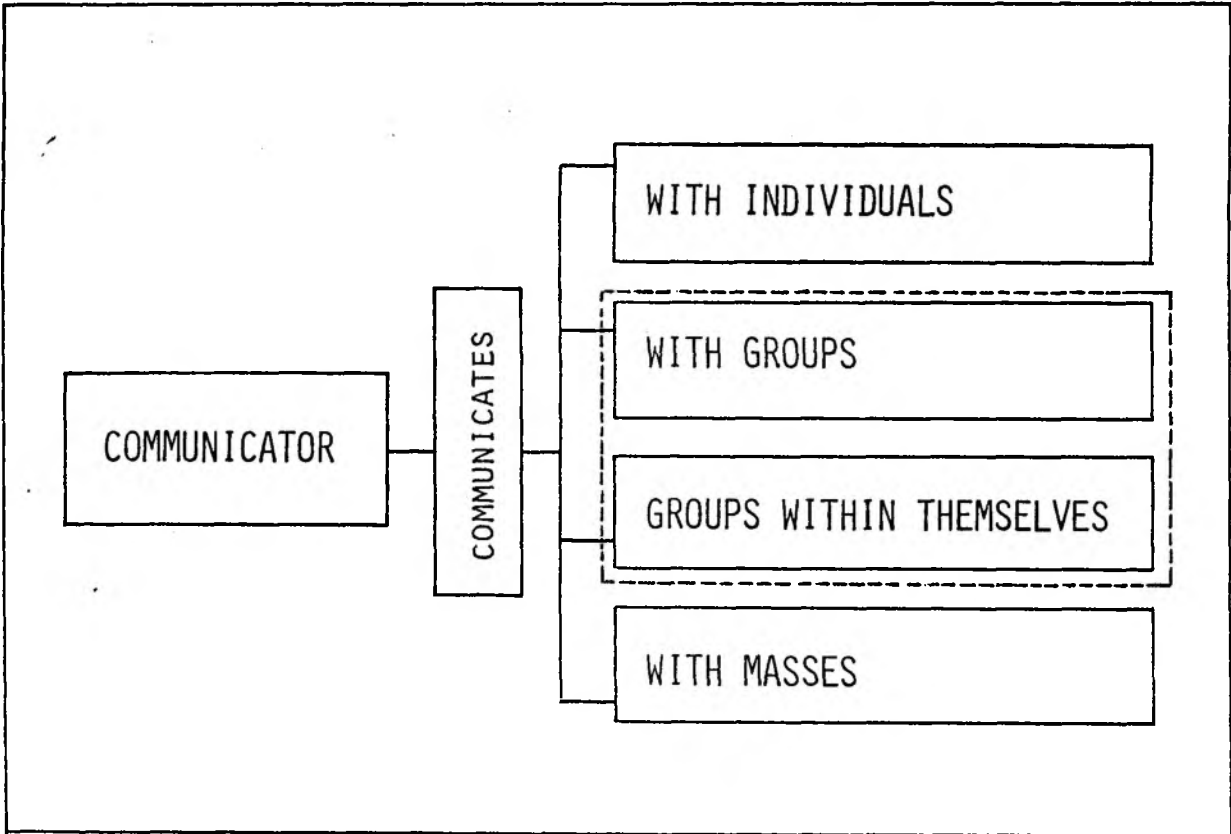


FIGURE V

COMMUNICATION : TARGET GROUPS

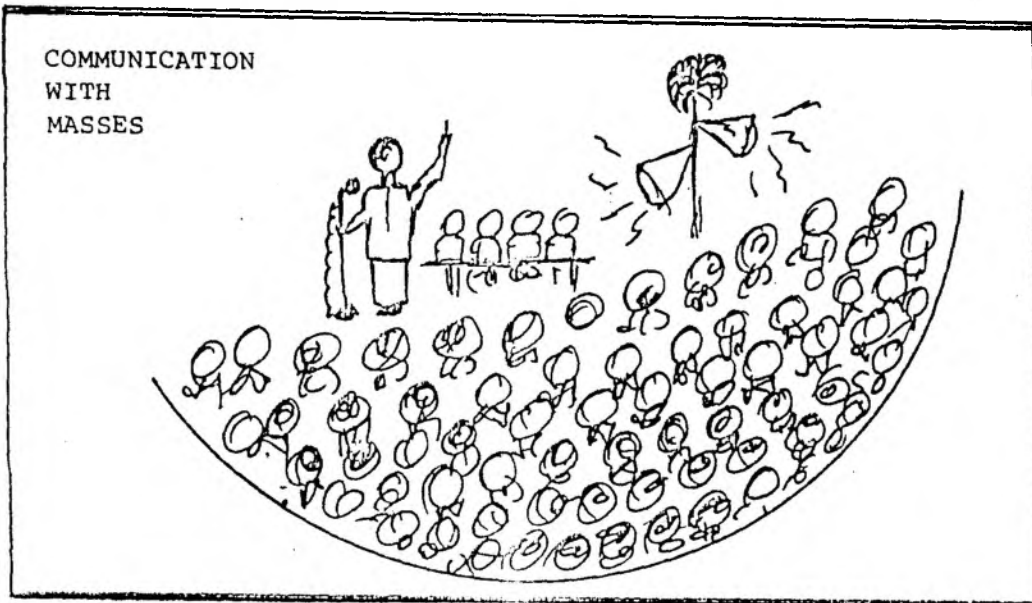
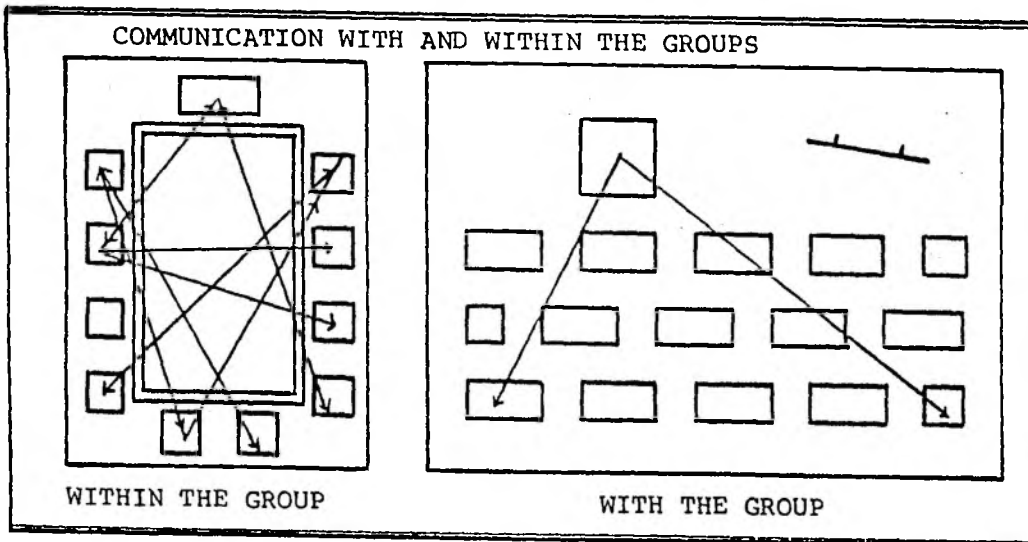
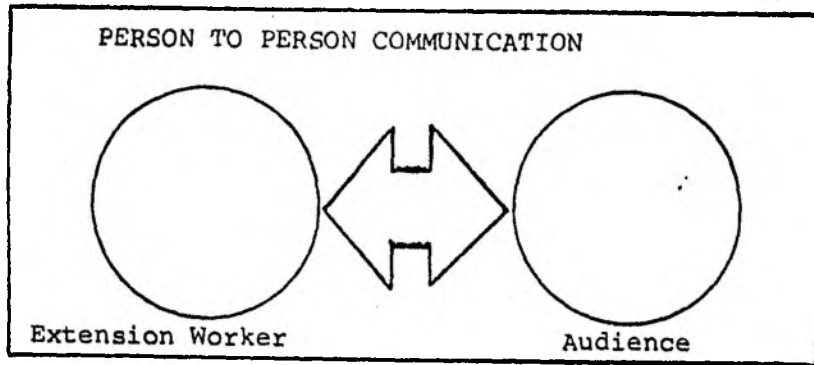
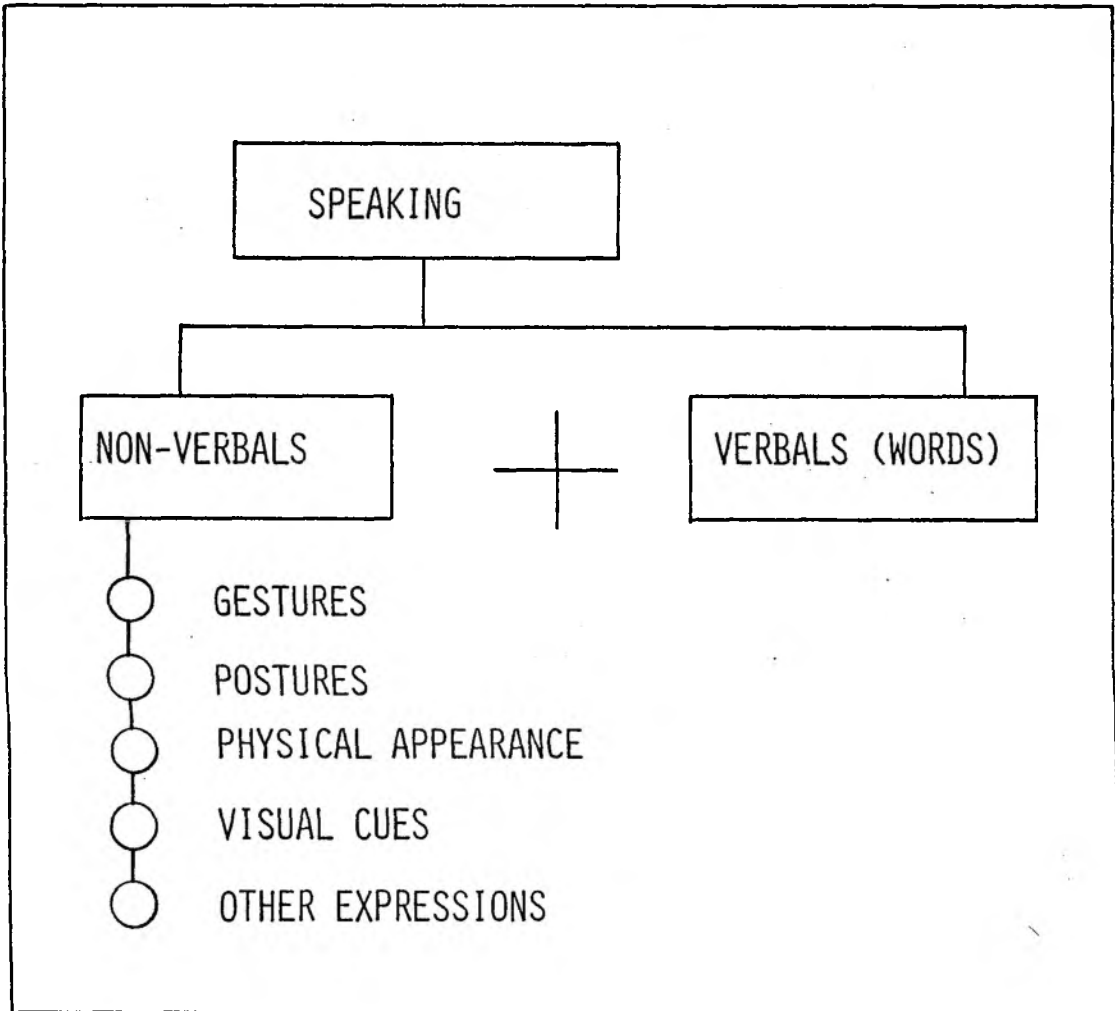


FIGURE VI



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 (Figure VII). 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 (i.e., hearing), and visual (i.e., 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 which can be profitably employed in the process of learning/teaching.

Learning and Retention 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, information and impressions. To us - communicators and 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 and single method to measure learning. It is a personal matter as 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 by seeing. We learn the minimum through taste, but surely the experience gained is more or less permanent. (Figure VIII) We learn the maximum through sight - 83 per cent - 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.

22 Learning is one aspect of gaining knowledge, but retention of knowledge is another factor. When we are exposed to a certain experiment conducted in the laboratory by the teacher, we, as students, feel that we could also do the same 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 (Figure IX and X). The retention of knowledge is 50% with a combination of Seeing and Hearing. The higher retention is achieved through action i.e., learning by doing. That is the reason why all adult and child learners are

FIGURE VII

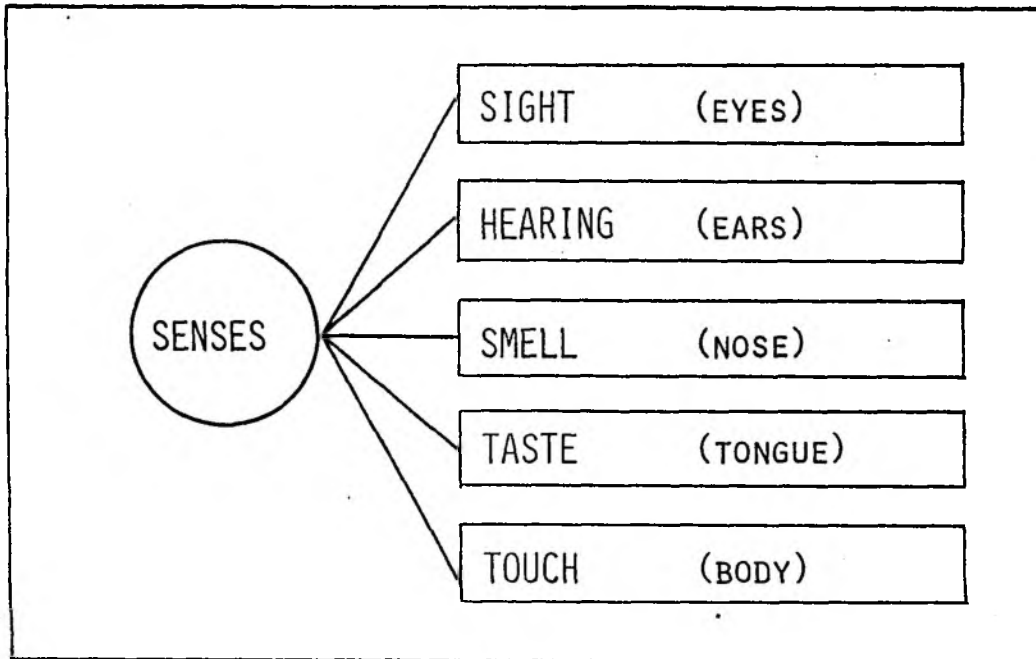


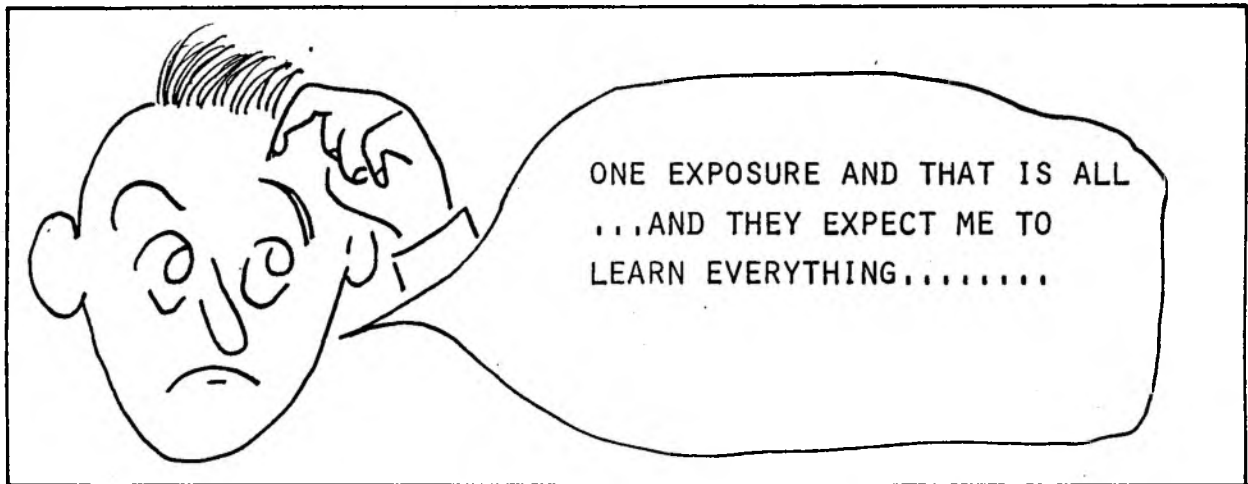
FIGURE VIII



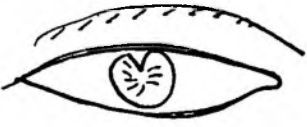
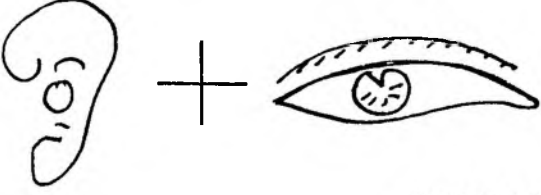
<u>HOW MUCH DO WE LEARN?</u>		
THROUGH TASTE	.....	1%
THROUGH TOUCH	.....	1½%
THROUGH SMELL	.....	3½%
THROUGH HEARING	.....	11%
THROUGH SIGHT	.....	83%

FIGURE IX

<u>AMOUNT OF KNOWLEDGE RETAINED AFTER A SINGLE EXPOSURE</u>		
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 OF INFORMATION AFTER ONE STIMULUS



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

are exposed more to the activity aid. All educators who are serious about imparting a sound knowledge to their students emphasise on the use of field trips, demonstrations, participation etc. A lot of knowledge and information can be transferred through the use of demonstrations, the one technique which is actively employed by extension workers. The Sri Lanka 'dish called the Sting Hoppers, if to be explained by merely using words and signs on chalkboard would not equip the learner to cook a good dish. The best results would be obtained if the demonstrator could cook the delicious dish in front of the learners - the information will be correctly and accurately transferred and if there are any questions, could be answered with illustrations etc., on the spot. The process of transfer of information is given in Figure XI.

The Purpose and Use of Audio-Visual Media

23 It is unfortunate that audio-visual materials are so often branded as audio-visual aids or teaching aids. All teaching aids are not audio-visual aids and all audio-visual aids are not teaching aids. Training aids or audio-visual aids actively help students to realise their learning objectives and make the task of the teachers a bit easier. 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 learning 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 aids and audio-visual materials can be listed and discussed here. A useful rule of the 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, audio-visual materials have the following 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; and
- 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 and audio-visual materials, 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; and

DO-IT-YOURSELF IS THE BEST LEARNING

HOW TO MAKE STRING HOPPERS?

PRINTED MATERIAL



- Black/White Vision
- Colour -do-
- Space (depth)-do-
- Movement
- Sound
- Space
- Cold/Hot
- Pain/Pleasure
- Smell
- Taste

- SIGHT/VISION
- HEARING
- TOUCH
- SMELL
- TASTE

HOW TO MAKE STRING HOPPERS?

RADIO BROADCAST



- Black/White Vision
- Colour -do-
- Space(depth) -do-
- Movement
- Sound
- Space
- Cold/Hot
- Pain/Pleasure
- Smell
- Taste

- SIGHT/VISION
- HEARING
- TOUCH
- SMELL
- TASTE

HOW TO MAKE STRING HOPPERS?

FILMS ETC.



- Black/White Vision
- Colour -do-
- Space (depth)-do-
- Movement
- Sound
- Space
- Cold/Hot
- Pain/Pleasure
- Smell
- Taste

- SIGHT/VISION
- HEARING
- TOUCH
- SMELL
- TASTE

HOW TO MAKE STRING HOPPERS?

PERSONAL DEMONSTRATION



- Black/White Vision
- Colour -do-
- Space(depth) -do-
- Movement
- Sound
- Space
- Cold/Hot
- Pain/Pleasure
- Smell
- Taste

- SIGHT/VISION
- HEARING
- TOUCH
- SMELL
- TASTE

- 3 Learning from audio-visual aids can be directly and appreciably enhanced by teachers in the following ways:
 - 3.1 introducing the materials and stating the objectives to be realised by them;
 - 3.2 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 responding to audio-visual aids like films and television.)
 - 3.3 employing attention calling devices like arrows and pointers; questions and discussion; assignments and projects;
 - 3.4 repeating student exposure to the materials.

27 These 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 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 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, temples and churches were created to achieve an effective an effective communication with the people.

29 A simple classification is audio-visual aids available to a communicator today is given in Figure XII. 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 the capabilities and improve his image as a good teacher. The audio-visual aids are necessary and 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;
- compel (rather hold) attention;

- cover more subject-matter in a shorter time;
- thus save time in communication system;
- enrich 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 in their studies. 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 vocabulary 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 and information. 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 students. One aid can be manipulated so as to achieve several effects. One portable chalkboard should serve as a chalkboard, a flannelgraph, a flipboard and a magnetic board as well. Much, of course depends upon the initiative, creativeness

resourcefulness and imagination of the teacher himself. The oft-repeated principle of 4-Rs (Figure XIII) should never be overlooked. Audio-visual aids must be used at right time, of the right type, in the right way and should be put to proper use.

Proper Use of Audio-Visual Materials*

33 Audio-visual aids can do these things:

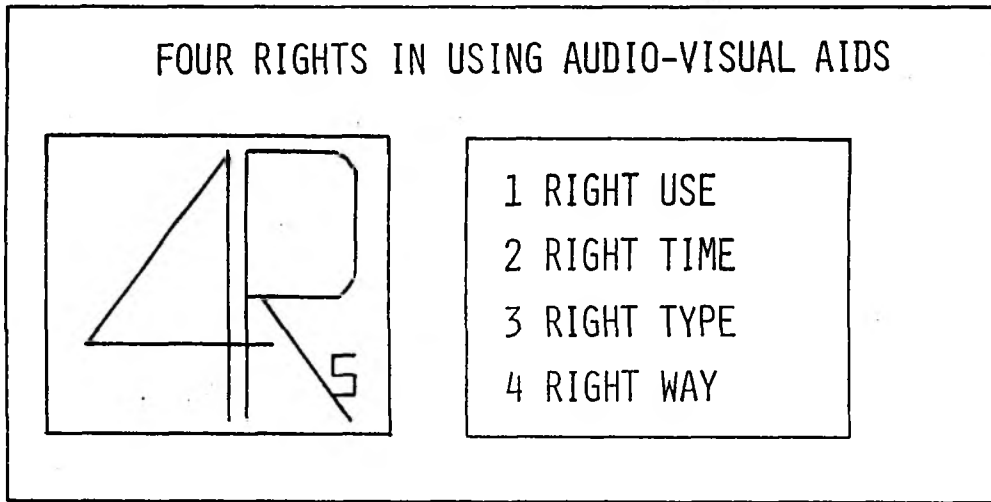
- promote a mood of mutual understanding and sympathy in our classroom;
- bring about significant changes in student behaviour;
- show the relationship of subject-matter to the needs and interests of pupils, with a consequent heightening of motivation for learning;
- bring freshness and variety to the learning experience;
- making 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.

Integration of Audio-Visual Aids with Teaching Methods

34 It should be clearly understood that teaching methods do demand some amount of support of teaching aids, and these teaching aids could be the chalkboard, flannelboard, projectors and others. A mere group discussion technique would not be enough if the discussions were not supported or underlined with some visual aids in the form of graphs, charts, fact sheets, simple brochures etc. Similarly, the training of faculty members in roleplaying would serve no purpose if they were not to design their own training material suiting to local conditions. During role plays, the teachers could as well use some flip charts and flannelgraphs for laying emphasis on certain points. Both these - the method and the aids - have to be linked together. No teaching aid can be used in isolation and similarly no training method is useful and effective without utilising some audio-visual material. Even for teaching 'Use of Accounting Forms in a Cooperative Society', for instance, some illustrated material would go a long way in making the forms better understood. These could be done by making use of actual forms or their specimens, or by making use of flannelgraphs and charts.

* Reproduced from Edgar Dale's Audio-Visual Methods in Teaching, 3rd Edition.

FIGURE XIII



35 Taking case studies, for instance, as a method of training, it would be desirable if OHP transparencies or flipcharts and the chalkboard could be utilised to explain the organisational structure, financial outlays, profits, memberships etc. By merely handing out the written case studies would make the participants dull and uninterested due to the written pages and without comprehending the statistics and organisational structure etc. Similar linkage would be desirable when undertaking the training of sales staff, managers or store-keepers. In such a situation slides and photographs could be effectively utilised.

Characteristics of a Good Teacher

36 Let us also have a look at some of the important qualifications and characteristics of a good teacher. 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. He should try to share it with the people. Some of the characteristics of a good teacher could be:

- 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; and
- Professional status.

37 The most important quality of a good teacher is that he should be willing to share his knowledge with the people and he should be in a position to bring his level down a little so that he should lift the audience later on together with him.

Aspects of Learning*

38 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 technique, will be judged adequate to the degree that it appears likely to:

- provide for the learner's active participation;

*Reproduced from "An Introductory Course in Teaching and Training Methods for Management Development", ILO Manual 36. ILO, Geneva.

- 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.

39 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.

Introduction

1 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, has been the chalkboard.

What is Chalkboard?

2 Chalkboard is a piece of commercial ply about 2cm thick of desired length and width (Figure XIV). Its one surface is painted with chalkboard surfacer. First the plyboard is given a thorough rub with a fine sandpaper so that it becomes smooth. The surface is then painted in at least 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 be either 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

3 Users of this media have found out its various advantages. These could be summarised as under:

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

Limitations in Using a Chalkboard

4 Users of this aid have also noticed some of the drawbacks while using this. These could be summarised as under:

- Requires the teacher to turn away from the audience;
- The teacher tends to ignore his audience and speak only to the board;

FIGURE XIV



- Dusty and messy to hands, clothes and to the nearby equipment e.g., Overhead Projector etc.;
- Dramatic and unusual effects not easily possible.

Cautions in Using a Chalkboard

5 Experience of teachers and trainers, who have been making a liberal use of this training aid, have pointed out to the following cautions which chalkboard users should observe:

- 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 write long sentences, but use only the catch words;
- Do not talk to the board;
- Clean the board before leaving the classroom.

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

7 The lettering on the board should be 2" to 3" high to make them visible to the students sitting at the rear of the classroom.

8 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 dark background. In several places it has been found that the blackboards have been used so much that the black surfacer had disappeared and these became just simple whiteboards. In many rural areas, blackboard surfacer is not easily available. Special trips to the town have to be made to find the paint. In such cases some alternatives have to be found.

Local Chalkboard Paint

9 The ingredients needed for such a local chalkboard paint are:

- i non-greasy soot and ashes left from a woodfire;
- ii linseed oil;

10 The ashes should be passed through a fine 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. The board should be first rubbed thoroughly with a fine sandpaper and cleaned with a cloth. The paint thus produced should be applied in four coats and keep the board to dry up in the sun for at least 2-3 weeks. Linseed oil takes a lot of time to dry up. If the painted board is exposed to sun for some time, the wood would also absorb some amount of oil and rest of it will dry up. Where the sunlight is not possible, the drying time could be as long as 2-3 months.

Practical Tools for the Chalkboard

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

- i A pair of compasses for drawing circles. Generally this is made of wood and is quite large in size. If this is not available a small string could as well do the job. Tie up a piece of chalk to one end of the string and by keeping the other end of the string under your thumb you can draw a circle by holding the chalk in your other hand;
- 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

12 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, states, countries etc. Drawings are made on a piece of paper for each illustration which has to be put on the chalkboard. Then with a punch or a 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 lightweight material like cardboard or sheet metal. The design is drawn on the material and thus 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 chalkboard and one end of the elastic string is pinned at a point to the left of the drawing 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.

Kinds of Chalkboard

13 We have been discussing only one type of chalkboard i.e., the permanent type, the fixed one type, the one which is mounted firmly and permanently on to the wall in front of the audience. You can find chalkboards which are portable or roll-up ones. There are revolving boards, which means the board can rotate around if mounted on a special type of stand. Thick rexine sheets could be coated with surfacers and these could be rolled up for taking them around. Even thick good quality paper could be given a coating of a good surfacer and that too could serve as a chalkboard. There are glassboards too.

Summary

14 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 user.

15 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.

Introduction

O1 The flannelgraph (or the flannelboard) is one of the most adaptable and flexible teaching aids. The user is able to present training 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 re-arranged, 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.

O2 Pictures, illustrations, captions and other symbols prepared on light cards or stiff paper backed with a light fluffy material. When these items are placed on a board covered with a similar material, the fibres of the two interlock on contact, and a light temporary adhesion takes place. If the flannelgraph (the board) is lightly brushed before use, this adhesion is improved.

O3 This aid has also some other names e.g., khadigraph (because khadi cloth - a handspun cotton cloth - is used as a backing material on the board), plastigraph (because a plastic sheet is used as a backing material on the board and the cutouts are also made of plastic sheet), 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 cutouts), etc. Whatever be the name, the principle remains the same. It is a very simple and effective teaching aid that a teacher can possess and use.

Types of Materials Used

O4 Supporting board. You need a reasonably large board covered with flannelcloth. As mentioned earlier, you can use other materials as well e.g., khadi cloth, towelling cloth, blanket, felt cloth, flock paper etc. etc.

O5 The size of the board could be 24" x 26" or 30" x 40". The board could be about 2cm thick. You can make use of the existing chalkboard, portable one, by covering it with flannel cloth. Size is not so 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 surface of the supporting board. For temporary use, clips or tapes can be used to hold the cloth. Permanent flannelboards have their own advantages but are not so easy to transport. All boards should preferably be used with a slight backward tilt at the top.

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

Symbols and Lettering

08 These can be drawn directly on the flannel cloth pieces and thus could be used as cutouts, or they can be drawn on thick card and then backed with sandpaper. Sandpaper sticks better on the flannel cloth.

Materials that you may Need

09 You will need the following material to construct a simple 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 cutouts;
- coloured poster paper;
- gum, adhesive, glue and adhesive tapes;
- pencils, magic ink pens, felt-tipped 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 (Figure XV) will enable you to understand the composition and construction of a flannelgraph. If you are able to gather together the above resources and material you can easily construct one set for your own use. This is the simplest that could be suggested. Some more detailed and ornamental versions are also available on the market, but they are, of course, expensive.

How to Use the Flannelgraph?

11 In using the flannelgraph you have to:

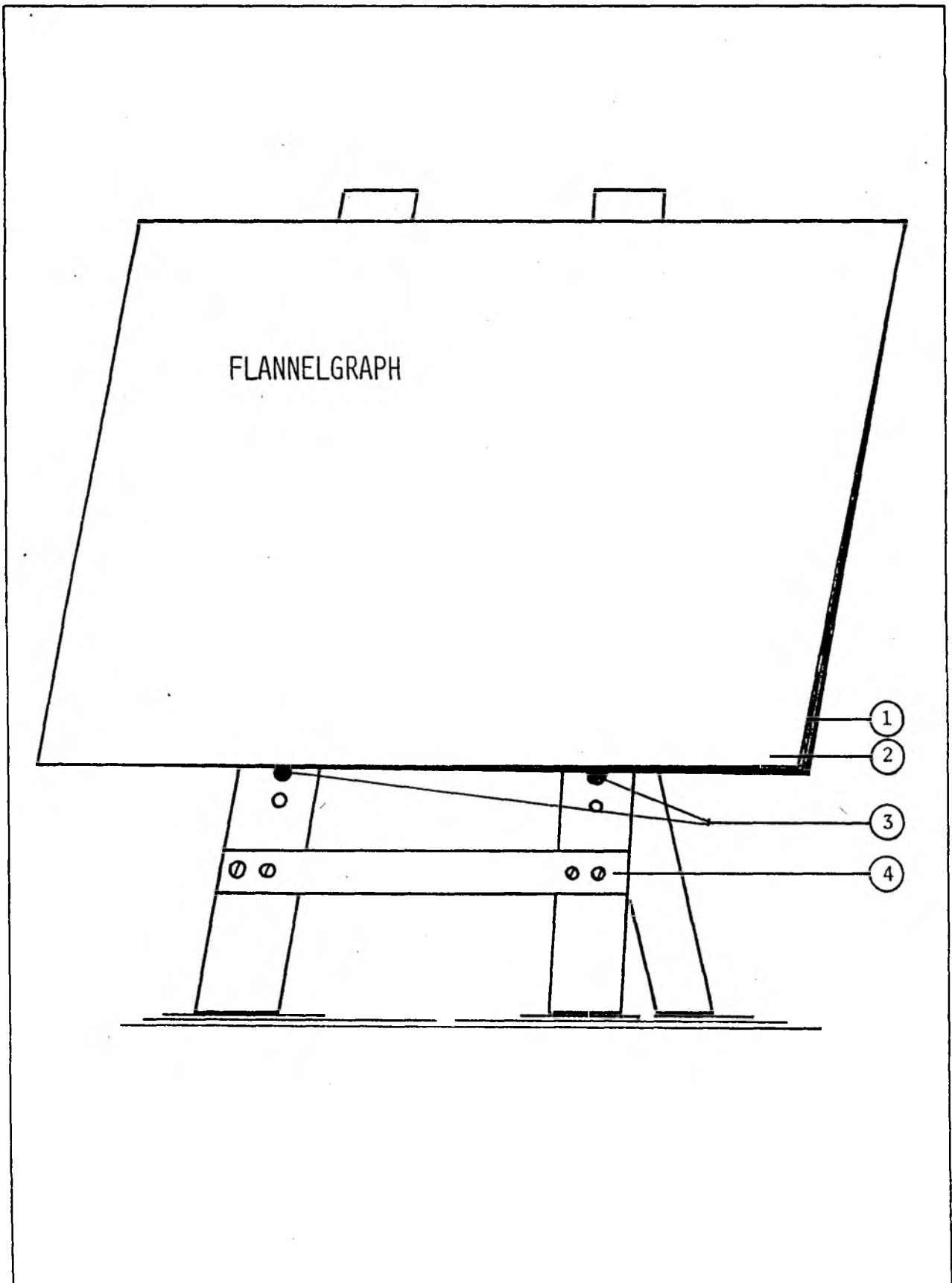
- decide on the story to be presented;
- prepare cut-outs (or appliques); and
- present the material.

12 We can now discuss these points in some 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

FIGURE XV



DESCRIPTION (refers Figure XV)

- 1 Supporting Board. A plain, even-surfaced piece of wood. A good plyboard would be ideal for this purpose. Size generally is 24" x 26" or 30" x 40". The thickness is about 2cm.
- 2 Front surface of the flannelboard. 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 2-3 inches more than the size of the board. The additional cloth is bent over in the back of the supporting board and then nailed properly. The cloth should be a good quality flannel. It could be felt cloth, khadi, 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 flannelboard to its best use. The stand is also used so that the board can be moved from one room to other. In case the slant or the tilt is not provided, the board might fall and also the cutouts might not stay in position.

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 (Figure XVI). 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 then make. 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 the layout. This paper will stay in front of you during the presentation of the lesson. This will keep you on track.

Preparing Cutouts (or Appliques)

15 As mentioned earlier you have to write out the theme of the story. The theme has to be supported by some visuals - these visuals are called the cut-outs or appliques (Figure XVII). Cut-outs are made from hard cardboard. The back of these cardboard cutouts is supported by sandpaper and also is given the serial number according to the sequence of the story/theme. These cutouts can be either textual or pictorial. Simple illustrations can be made by the teacher himself. The illustrations or the text should be bold enough so that these could be seen and read from a distance clearly. Each cutout should have a backing of a good quality sandpaper (generally number 4) or of flocked paper. Cutouts 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 cutouts in the correct manner and at the right time.

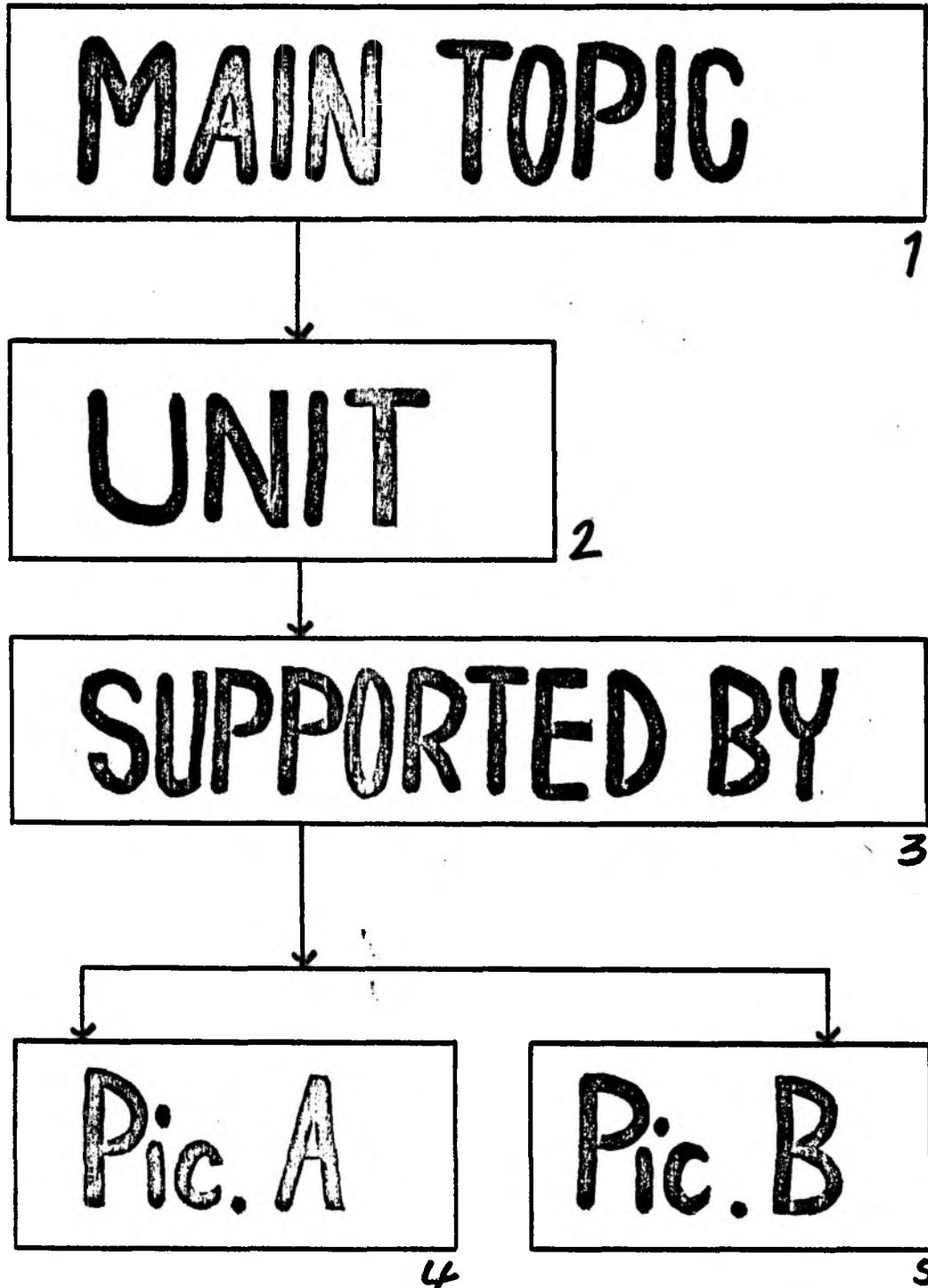
Presentation of the Material

16 When you are ready with the theme sheet and the cutouts, you should not hurry up with the presentation of the cutouts 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 cutouts. Do not present the cutout merely for the sake of demonstration, but use them as main-topics and discuss the topic thoroughly before you bring in the next cutout. 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 cutouts, and also do not play with them.

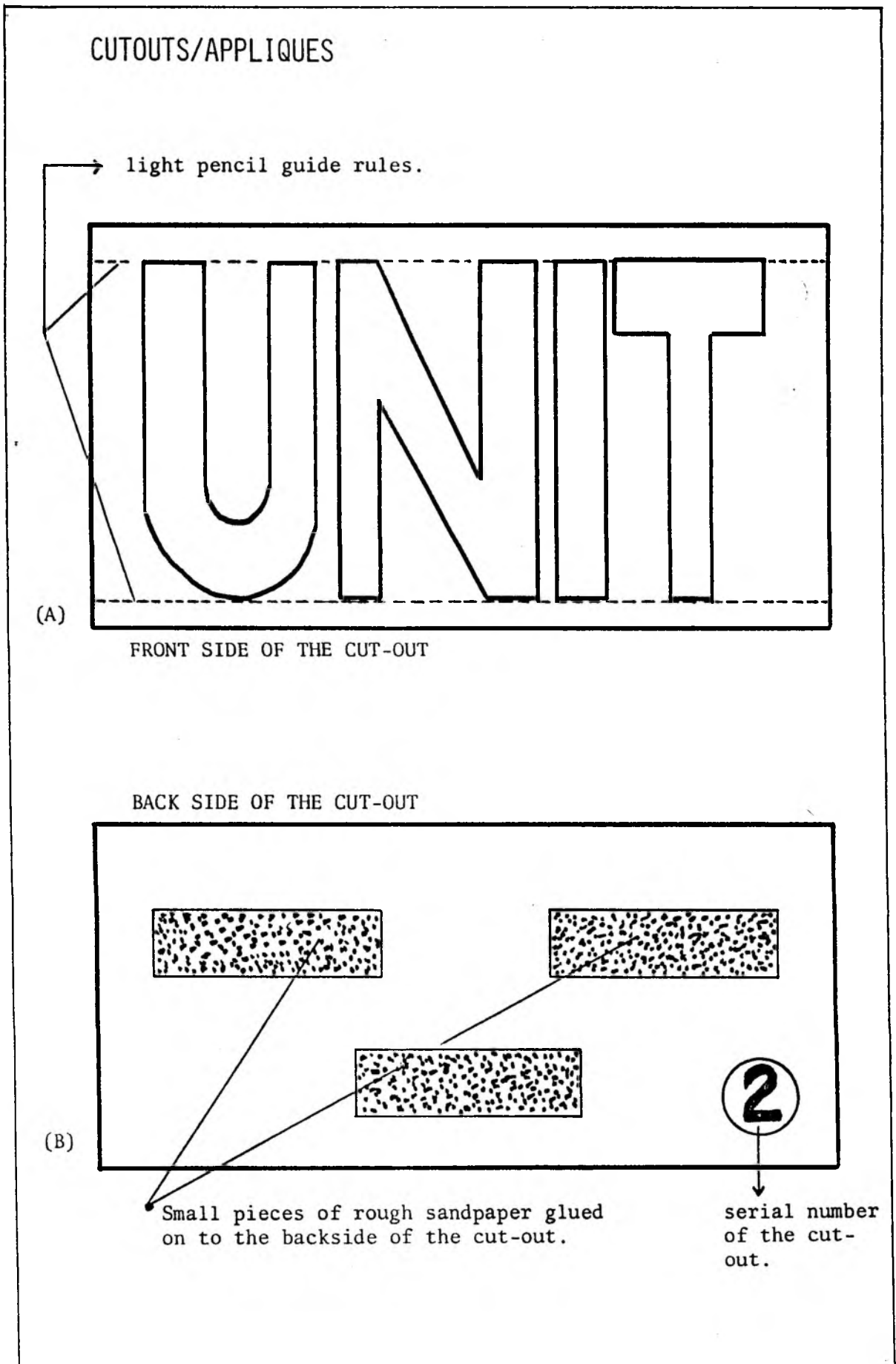
17 The most appropriate manner of presentation is that on your table you should place the theme-sheet on one side and on the other, you should keep the cutouts, facing downward. The highest number of the cutout should be by the lowest and the first serial number of the cutout should be on the top of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

FIGURE XVI

A ROUGH LAYOUT OF THE FLANNELGRAPH - SCHEME



This layout should remain in front of the teacher. Along side should lay the cut-outs, their backside up, so that he can look at the serial number and take them in an order to the flannelboard for presentation. This scheme will help the teacher to remain within the framework of his subject matter presentation.



Lettering and Illustrations

18 It has been mentioned earlier that the lettering on the cutouts should be bold and clear. Letters should be clear and readable from a distance. It is better to have at least 2" high letters. The edges of letters should be cleaned i.e., the rough ends should be treated with a sharp pen or fountain pen so that they look sharp and clean. Badly written letters give a bad impression (Figure XVIII).

19 Illustrations should be bold and details-free. These should be clean and relevant to the topic for discussion. Unnecessary ornamental work on illustrations should be avoided as they do not serve any useful purpose.

20 Arrows or pointers are also needed and these could be prepared as cutouts (Figure XIX) by using thick cardboard and backed with sandpaper. Arrows could be of one colour or of different colours depending upon the points that are to be discussed.

21 Do you know what you would be doing during the course of the presentation of the training 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 point 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.

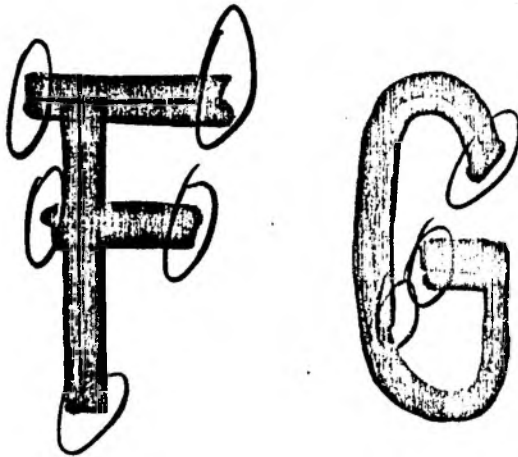
22 While handling a class and while making use of the flannelgraph, you do not have to make a long speech. You can develop the topic by making use of sub-titles or catchwords, and by involving the participants in the discussion.

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

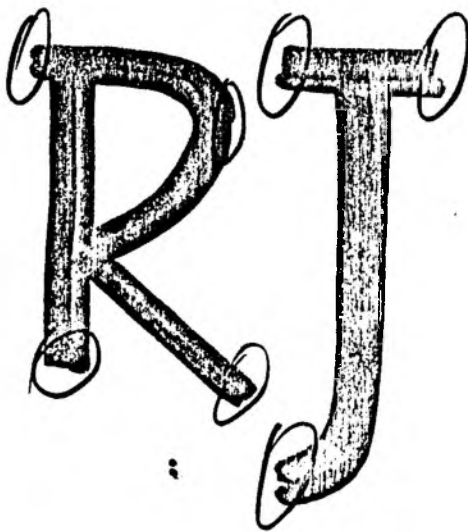
23 In order to make your flannelgraph to be effective, meaningful and useful, you should devote great attention to the proper techniques of its construction. While thinking of using the flannelgraph as a teaching aid you should try to achieve:

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

FIGURE XVIII



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



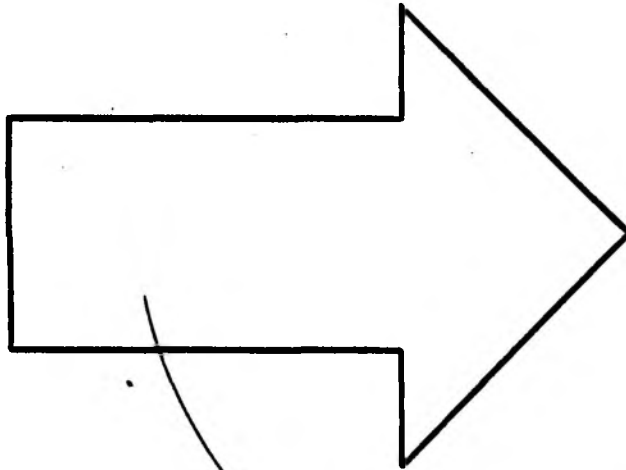
Such letters, obviously, do not present a good picture. They appear to be shabby and unprofessional.

A properly made and neatly presented training aid attracts the attention of the audience.



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

FIGURE XIX



Give some sharp colour
to the outer surface.
Use only one colour.



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

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; and

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

Advantages of Flannelgraph

24 The users of this training aid have noticed the following principal advantages of this aid:

- 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 characteristic and colours;
- Illustrations can be altered, replaced easily;
- It is hardwearing; and
- Can be used in conjunction with tape-recorder.

Some Limitations on the Use of Flannelgraph

25 In spite of its good points, teachers have found its limitations. These could be:

- 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

26 Based on the experiences of teachers using this training aid, the following cautions could be observed by users:

- Number the visuals (cutouts), carefully;
- Rehearse before use;
- Keep the visuals and the theme in one envelope;
- Keep the flannelcloth clean and brushed up for better hold of illustrations by the flock or sand paper.
- Use small pieces of sandpaper on out cutouts rather than using one large one. Several small pieces hold the cutout better.

Evaluation

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

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

28 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 advisable if you developed some sort of an evaluation sheet.

Check List...

29 Before making use of flannelgraph, it would be good to go through the following check-list, in your own interest as well as in the interest of your audience:

- 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 cutouts;
 - Are the cutouts arranged in the order of their presentation;
 - Have you got your theme-sheet ready;
 - Do all the pieces stick on; and
 - Are letters and figures clearly readable.
-

Introduction

01 You have been using the chalkboard and flannelgraph in your teaching assignments. You might have also used other display aids e.g., bulletin board etc. There is yet another teaching aid which you could also use with advantage and that is, the Flip Board or the Flip Charts.

02 Flip board here means the total aid which also includes the charts. A collection of pre-prepared charts on large-size paper (mechanical newsprint sheets), clipped together on the top to a display board, can be called the "Flip Board" (Figure XX). 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.

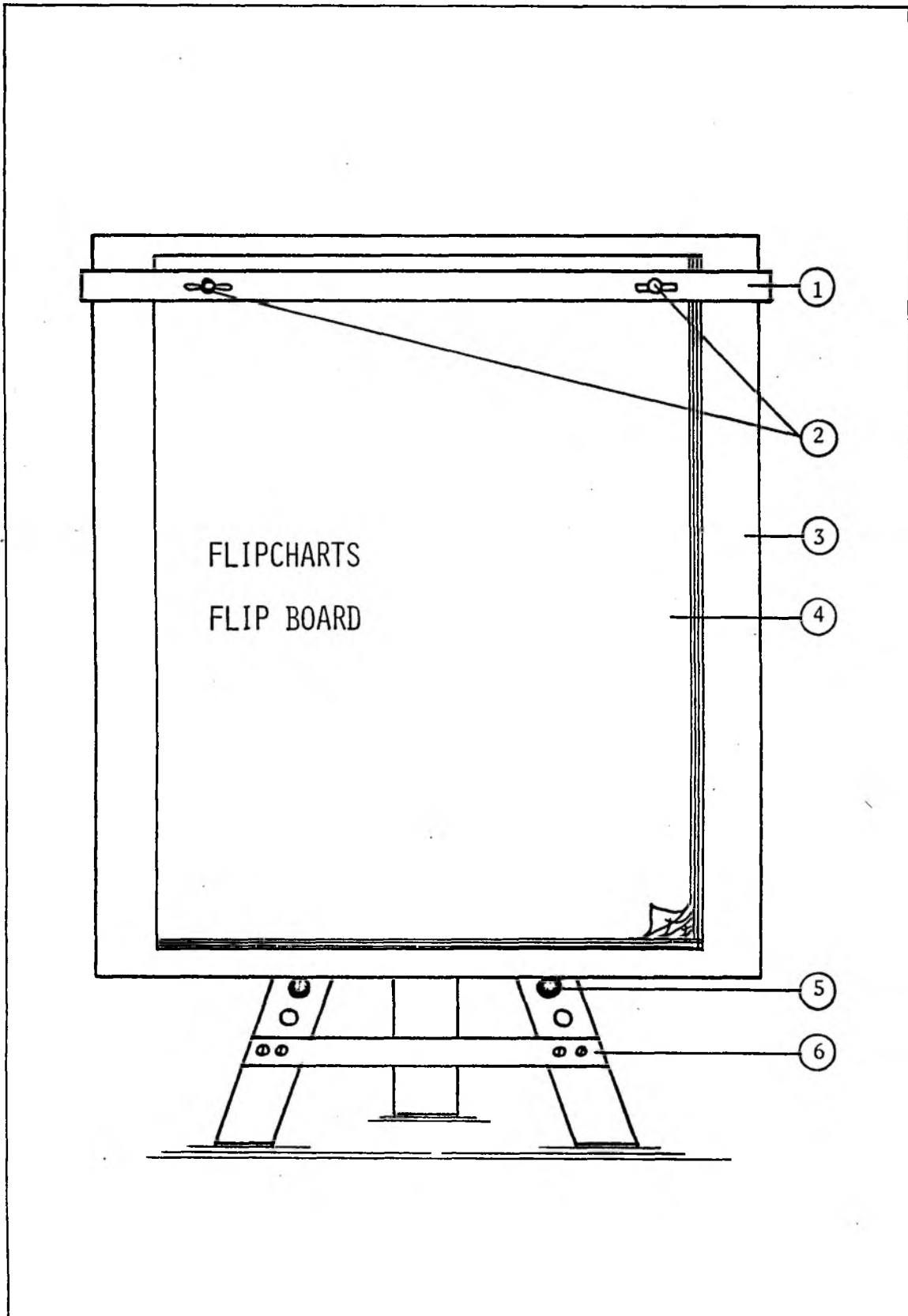
Using the Flip Charts

04 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.

05 How will you turn the chart over? You can do it if you are sufficiently tall or by making use of some pointer or a foot-ruler. Be careful 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.

06 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 written or drawn on the flip sheets.

FIGURE XX



Description (refers Figure XX)

- 1 A piece of wood. About 6cm broad, 2 cm thick and its length should 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 between the two holes should be about 35-40cm. There should be two holes also in the supporting board. The holes on the strip and on the supporting board should correspond with each other. Two fly-screws about 8cm 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 holes on the supporting board, flip charts and the strip. Better use brass screws to save them from rusting.
- 3 Supporting board. Preferably a thick plyboard - about 3cm thick, properly polished. It can be about 30cm x 40cm. One side can be given a paint of black/grey surfacer to be used as a chalkboard, and the other side can be painted white or grey. The board should have two holes on the top to hold papers and the strip (see 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 etc. Do not use very thin paper as the writing ink might damage the papers below. Avoid using spirit-based inks. Water-based inks are good for this purpose.
- 5 Two holding pegs will keep the board in position. These pegs can be moved upward or downward keeping the height of the user in view.
- 6 A three-leg chalkboard stand is to be used to hold the flipboard in a slightly slanting position. The stand should be sufficiently sturdy. The third leg of the stand should have some kind of arrangement which will stop it from sliding away. There can be 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.

07 Turnover sheets 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.

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

Types of Flip Charts

09 Flip charts can be held together in various ways. The above description is the simplest and the easiest. Charts can be rearranged, if needed. Charts can be bound together with a spiral wire (Figure XXI). In this case the charts cannot be rearranged without damaging them. There are some portable flipboards. The size of the portable charts is generally small. Some examples are given in Figure XXII.

Using "R" Clips

10 Due to circumstances it may some time not possible to get hold of a board with holes. In such cases the alternative could be the "R" clip or the Clip Bends (Figure XXIII). Some other paper clips are also available, but these clip bends have proved to be workable and effective. It is good to keep at least two of them always handy.

Making Flip Charts

11 It is essential, first of all, to get hold of several sheets of paper of uniform size. A few good markers, preferably water-based inks, a pencil, a foot-ruler and an eraser should be handy. The teacher then should make a rough plan of the material he is going to teach in the class. That material should be reduced into small and catchy words and phrases. This material then should be transferred onto the sheets. The lettering should be bold, clear and smart, sentences should be avoided, only phrases and catch words should be used (Figure XXIV). The lines should be straight and there should be sufficient distance between the lines and words. Illustrations, if any, should be simple, bold and colourful. Details should be avoided.

12 After finishing the written work, all sheets should be numbered serially and clipped together on the top for presentation. A blank sheet should be put on top of the front page. Before the presentation of this aid, it is advisable to go through the written work once again and carefully to correct any spelling mistakes, or any mis-statement or figures. It is better to do this work before the assignment rather than in the classroom itself.

FIGURE XXI

SPIRAL BOUND FLIP CHARTS

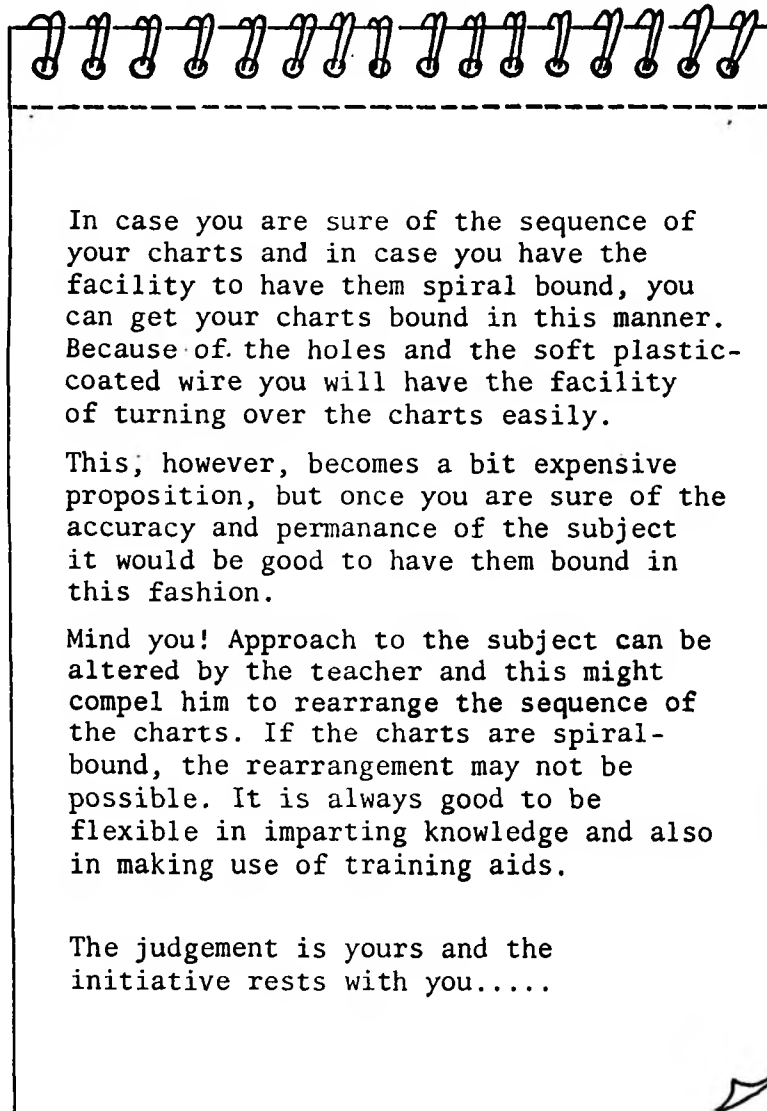


FIGURE XXII

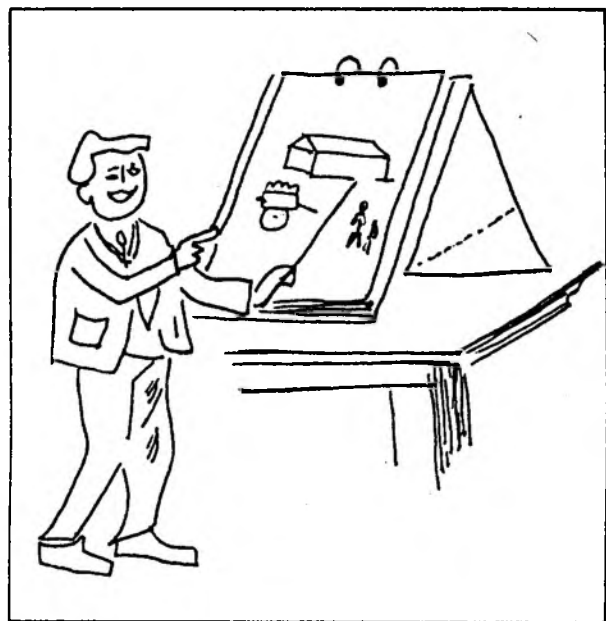
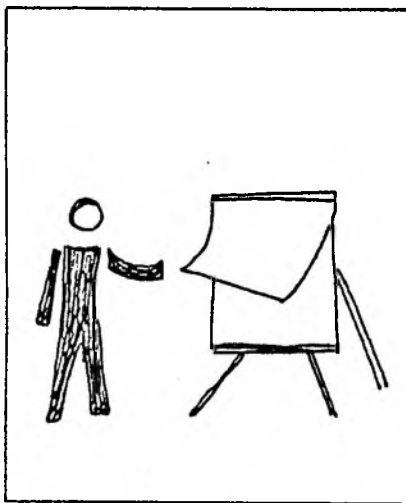
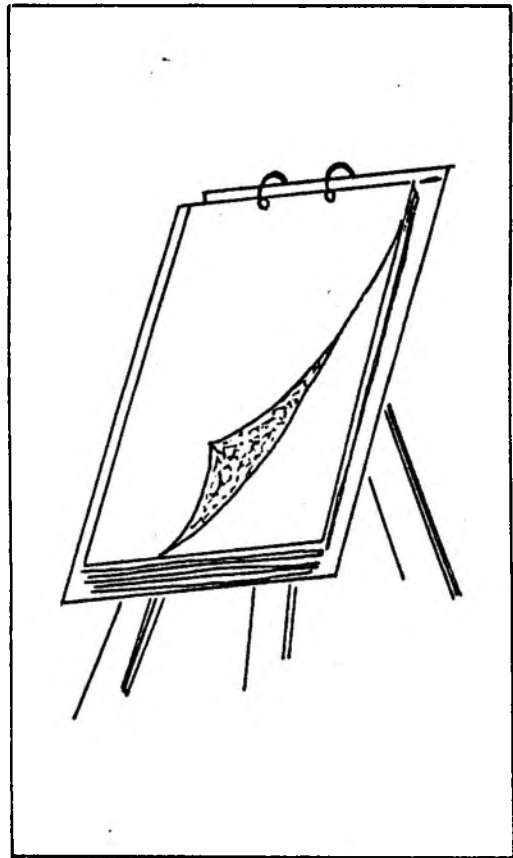
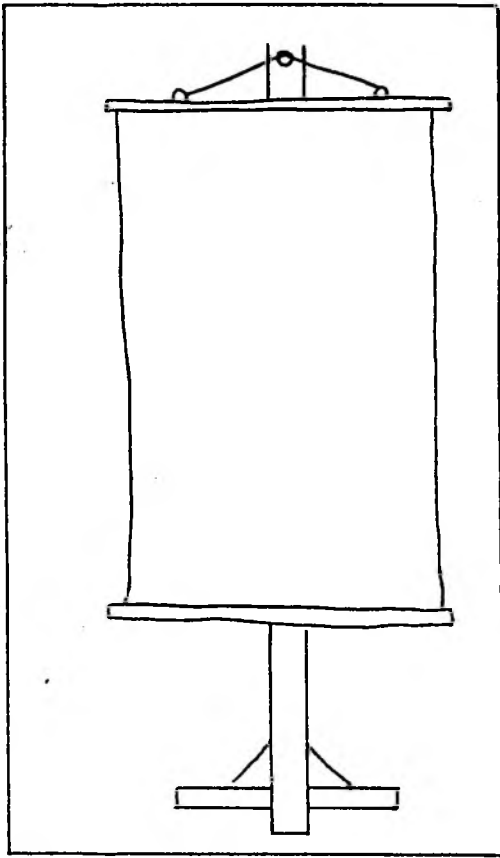


FIGURE XXIII

MAKING USE OF "R" CLIPS

In case it is not possible to have the holes drilled in the wooden strip or to locate the fly-screws, you can as well make use of the "R" clips or Clip Bends which are easily available with stationery stores or with hardware stores. These are available in various sizes and you should try to select the largest one and preferably of the stainless steel type. Iron clips become rusty and these tend to spoil your flip charts and other such display material.

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 the side view.

The clip can be used at the top of the display board, as shown in Figure "C". It can hold about 12-15 sheets together with the thickness of the board itself. It is better to use two clips at one time. If the grip of the clip is not firm enough, better use three of them. These are not expensive.

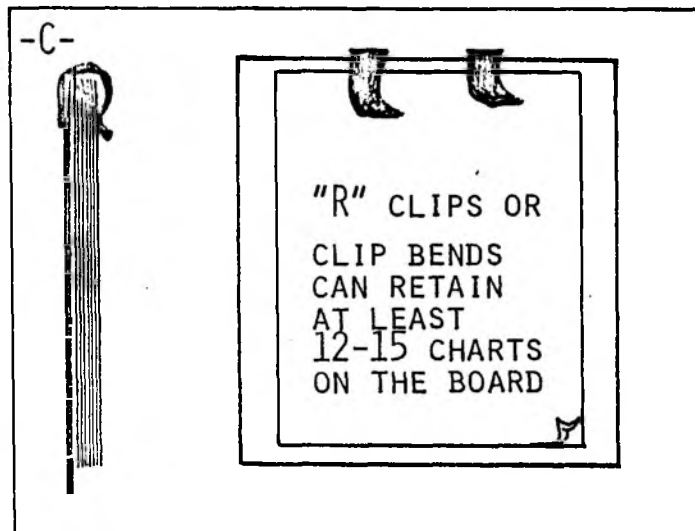
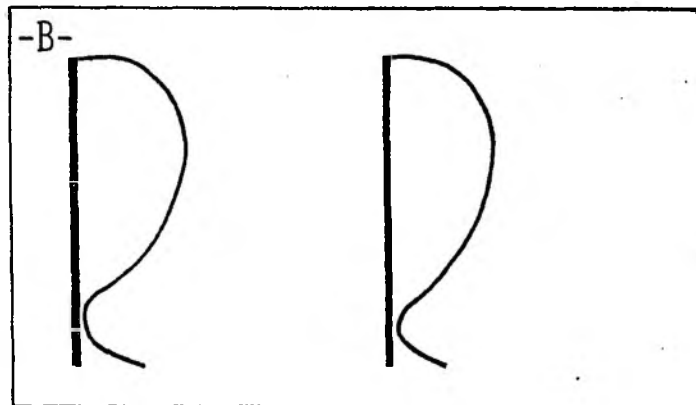
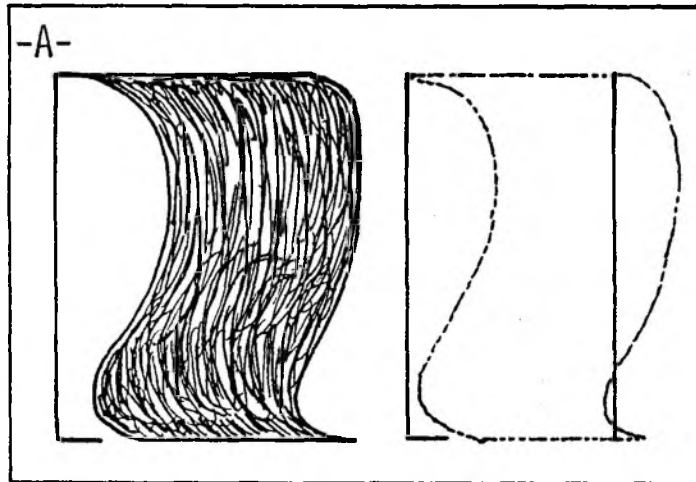


FIGURE XXIV

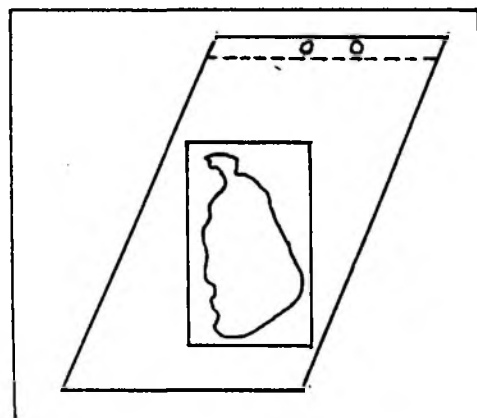
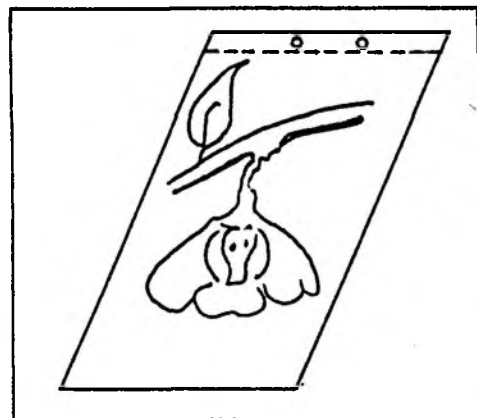
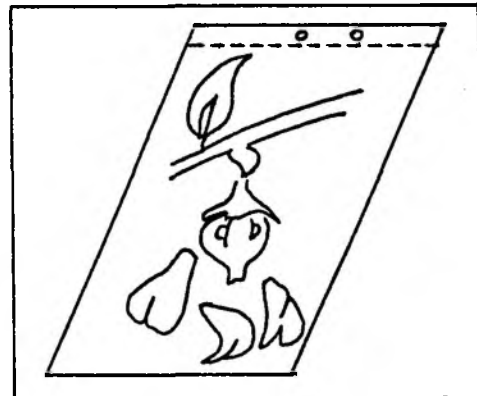
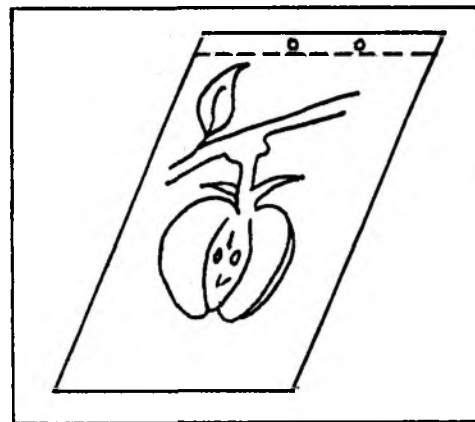
MAKING FLIP CHARTS

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

Charts should be drawn in a 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 prepared in a neat manner. They should be in dark ink. Better use water-based inks than the spirit-based 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. Avoid too many details in your illustrations.

In case straight lines and circles are involved in your illustrations, better make use of the drawing board and instruments. After all the sheets are prepared, put them together and bind them with some string or with a stapler. Number the sheets. Put a blank sheet on the top of the first sheet. Before presentation of the aid, please go through it carefully and make necessary corrections.



13 There is yet another very attractive style of presenting your material by using the flip chart. This is some kind of a strip-tease technique (Figure XXV). This method brings in a lot of discussion and you can continue holding the attention of your audience.

Advantages of Using Flip Charts

14 Users of this training aid have been able to identify the following advantages of this aid:

- attracts audience 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 is portable.

Some Limitations

15 The following limitations have been observed while using the flip charts:

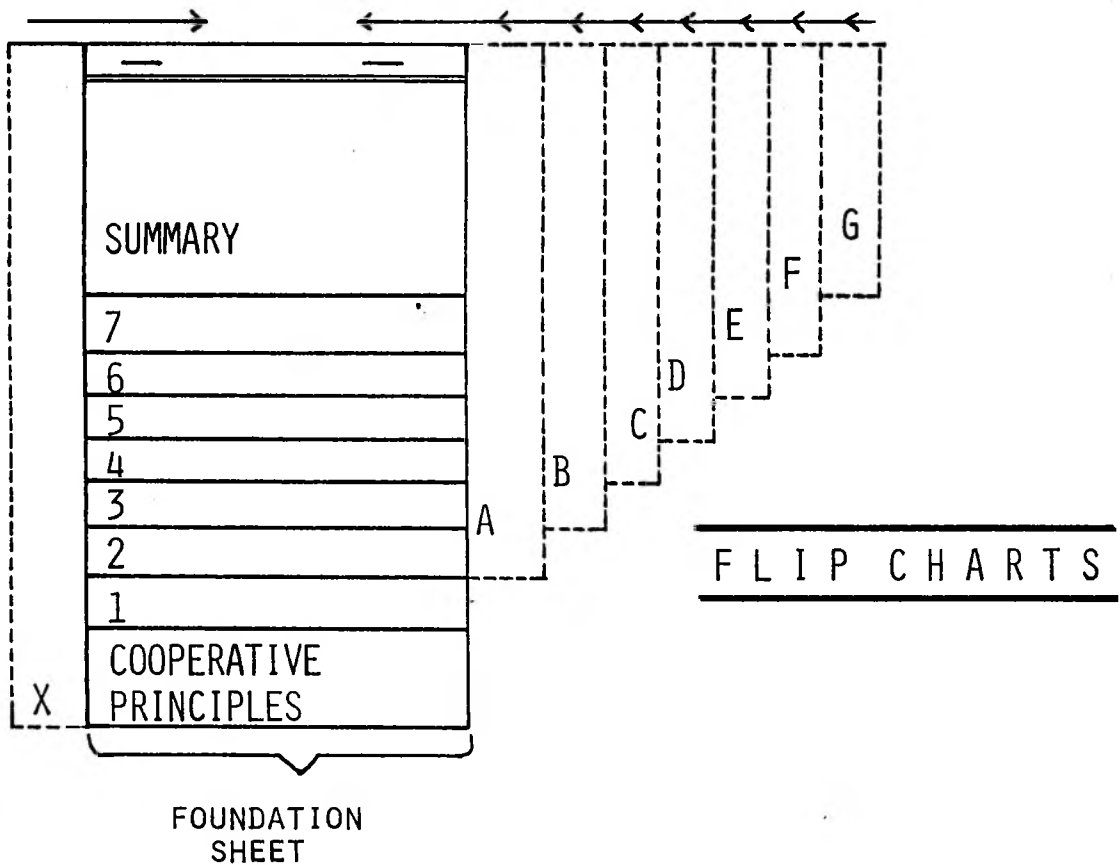
- although the sheets are large yet the writing space tends to be limited;
- presents some transportation problems;
- dramatic effect is limited;
- storing is difficult as curling takes place due to rolling.

Cautions

16 Users have pointed out to the following cautions which could be observed while using this training aid:

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

FIGURE XXV



INSTRUCTIONS

Take two large-size newsprint sheets. One will be the Foundation Sheet while the other will be the Cover Sheet (X). Write on the Foundation Sheet the Principles of Cooperation, number 1 being at the bottom and number 7 being on the top. Write in large letters the title of the topic i.e., COOPERATIVE PRINCIPLES on the Cover Sheet (X).

Take another newsprint sheet and cut it according to "A", which means covering the portion of the foundation sheet from No. 1 upward - No.1 will remain exposed while the rest of the writing will be covered with sheet "A". On this sheet "A" draw some simple illustration relating to Cooperative Principle No.1. Now take another sheet and cut it according to "B" covering the portion of the foundation sheet from No.2 upward - No.2 and No.1 will remain exposed. Draw some simple illustration on sheet "B" relating to Cooperative Principle No.2.

Cut the remaining sheets in the similar fashion and put them together so that No.1 is covered by "A", No.2 is covered by "B" and so on. The result will be that when you turn over sheet "G" all the Cooperative Principles will remain exposed to the audience and this will help you to summarise the lesson. Now put the Cover Sheet "X" on the top and staple the entire set.

Important: The illustrations on Sheets "A" to "G" should be simple, bold and related to the Cooperative Principles 1 to 7.

- Turn the sheet over carefully otherwise it might damage it and cause disturbance in the class;
- Stand on one side of the flipboard while using it;
- When finished with the talk, roll up the pages 'top-side-outside' so that when you use them next, the bottom of the sheets will not curl towards the audience;
- Don't read from the flip chart. Use the catch words for discussion and elaboration;
- Always keep some felt-pens ready as they tend to dry up fast - so check the markers before using them;
- 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!

Conclusion

17 Flip board is one of the very useful teaching aids that a teacher can effectively use. It replaces, to some extent, the slide projector, flannelgraph and the chalkboard. It consists of a supporting board, a few plain sheets, fly screws, strip of wood, "R" clips, spiral binding, a pointer, and a few good markers. It is very economical and not much of skill is needed to make and use them. Keep the sentences away, better use catch words, small phrases, bold and simple lines, letters and illustrations. Although the aid is mostly on paper, it can be prepared on polythene/rexine sheets as well as on cloth for a more frequent use.

Introduction

01 In audio-visual materials LETTERS and WORDS play an important role. They make the visuals lively, bold and effective. Audio-visual aids, without the use of appropriate letters, are like a woman 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 and informal (Figure XXVI). These are also called the mechanical letters and freehand letters.

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.

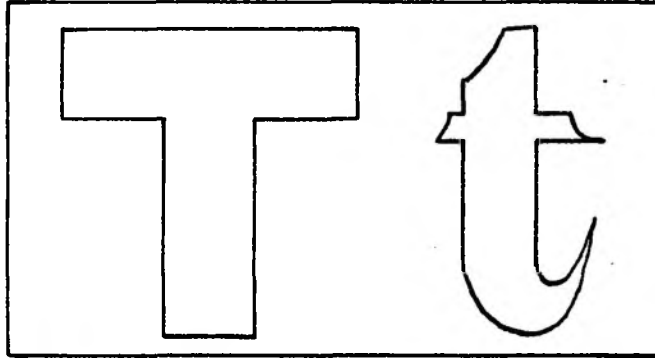
04 The tools available for freehand lettering may range from simple pens made from strips of bamboo cut to a wedge point, to round and broad-tipped lettering pens and the felt-pen variety.

05 The technique for using such type of pen is similar, but the felt pen tip permits the fastest work. A felt tip pen with a wedge shape 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 letters, 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. Another important point is the hand and fingers should be in a relaxed manner when handling felt-pens or when writing large letters. If the hand and the fingers are tense, the lines will be shaky and wavy. The movement of the hand should be natural and no special efforts should be made to keep the hand steady.

FIGURE XXVI

FORMAL
LETTER



FREEHAND
LETTER

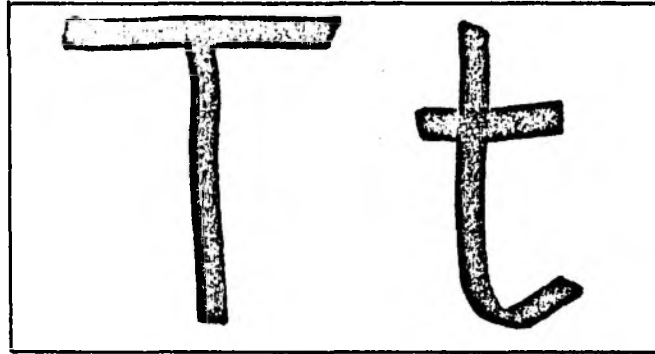


FIGURE XXVII

ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOP

A ROW OF CAPITAL LETTERS IS MORE DIFFICULT
TO READ (STOP) A ROW OF CAPITAL LETTERS IS
more difficult to read than the words which
a composed of small (lower case) letters.

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 (Figure XXVII). If extensive and continuous use is made of capital (upper case) letters, reading can become tedious. In visual aid work, capital letters are more appropriate to captions and main titles than to long phrases.

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 forms in many parts of the world.

Stencil Lettering

10 Brush 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 guideline 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 stencil 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 the 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 cm 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 (Figure XXVIII). The first one is the mechanical spacing. Exactly the same amount of space is allowed between each letter, and in some instances, the space appears to be larger than what it is actually. The second example shows the optical spacing, giving a much better appearance to the work. With only a minimum 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.

Cautions

14 Lettering should be bold, neat and clear. The space in between the letters should be uniform. Apply the method of mechanical distance and optical distance as per situation. Avoid extremes. This includes tall-thin or short-fat letters, and any form of exaggerated or unfamiliar style. Such letters may be of occasional interest, but they are 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 the visual aid. They should, therefore, be:

LEGIBLE	The lettering should be legible enough to allow even the last bencher to read them clearly without undergoing any optical strain;
BOLD	Make them thick, bold, straight and vertical;
CLEAR	Avoid over-crowding and confusion.

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 aids. These could be used for 'lay' posters or 'funny' announcements. For educational material, it is always good to use formal and bold lettering.

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

FIGURE XXVIII

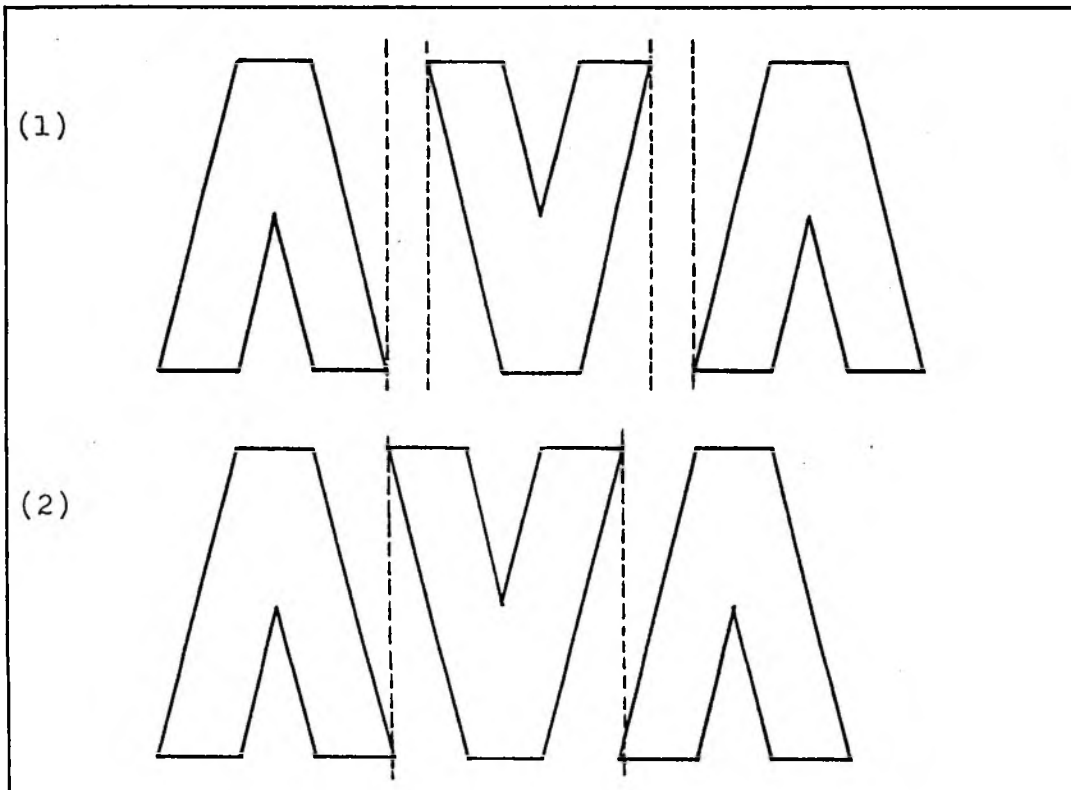
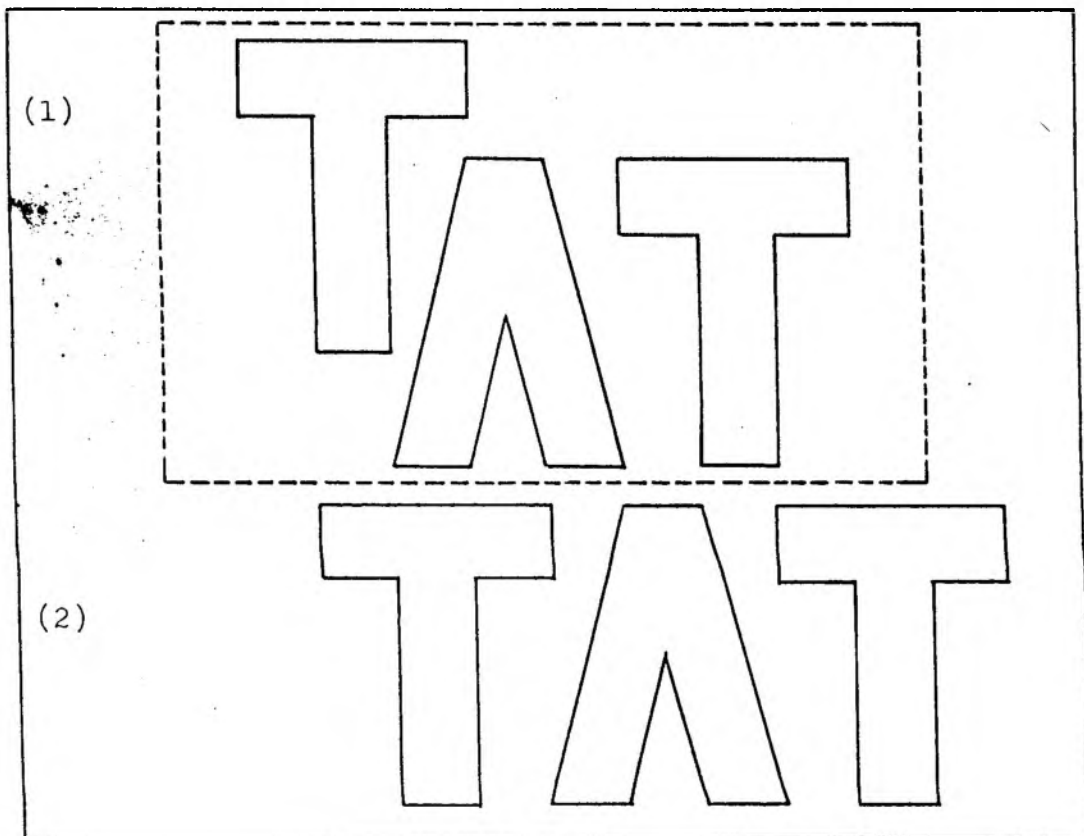


FIGURE XXIX



18 Also avoid fancy letters (Figure XXX). If you wish to write "A", make it A, and not an ornamental "A".

19 Avoid serif too (Figure XXXI). They unnecessarily consume space, time and distract attention.

20 Make your letters as balanced as possible. Its arms and legs should be within a reasonable frame. Make your letters as natural and real as possible. In the three illustrations (Figure XXXII), the first one is balanced. The arms and the leg of the first two are longer than the proper size. Keep them as normal as possible.

21 Determine the height of the letters in a given space. If the letters 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 100 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 and bold enough to be seen and 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-tipped pens. Write capitals, small letters, 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 Freehand lettering is done without the help and use of any mechanical measurement and devices. Simple ruler can be used for drawing base lines. The devices are the following:

- foot ruler;
- pair of set-squares;
- paint, poster colour;
- ordinary pencil;
- brush;
- crayons;
- felt-tipped pens;
- ink tubes;
- pencil eraser;
- old newspapers;
- ruled note-books.

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

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FIGURE XXX

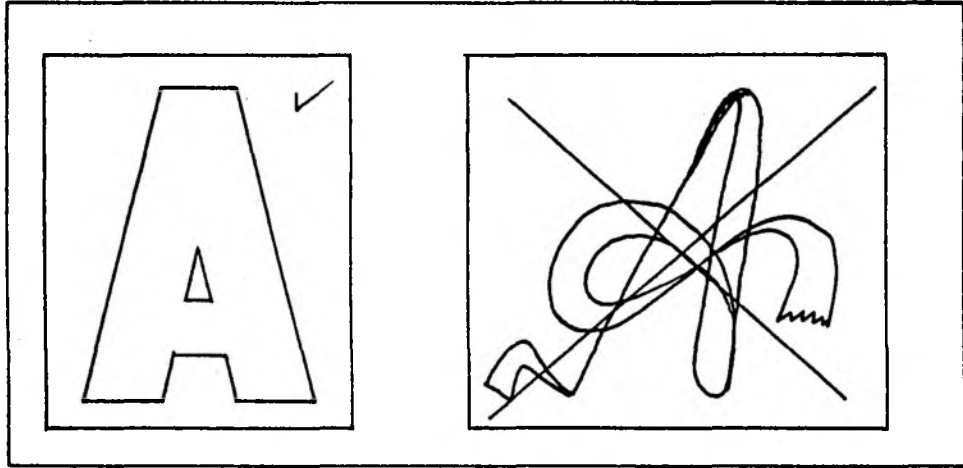


FIGURE XXXI

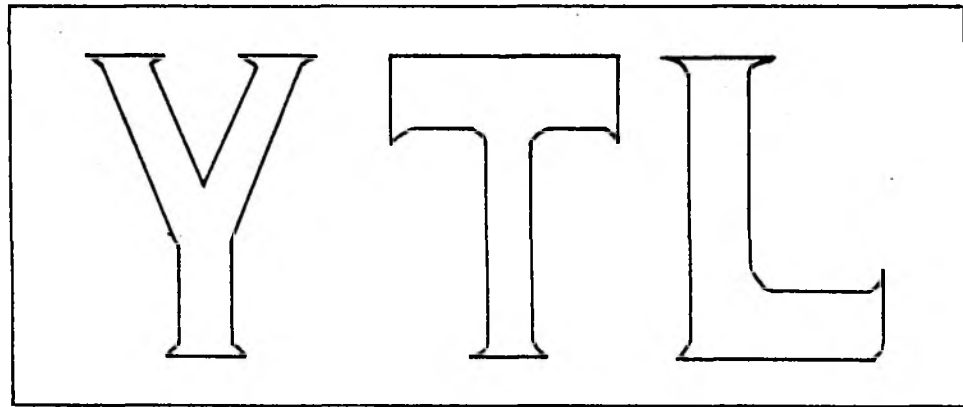
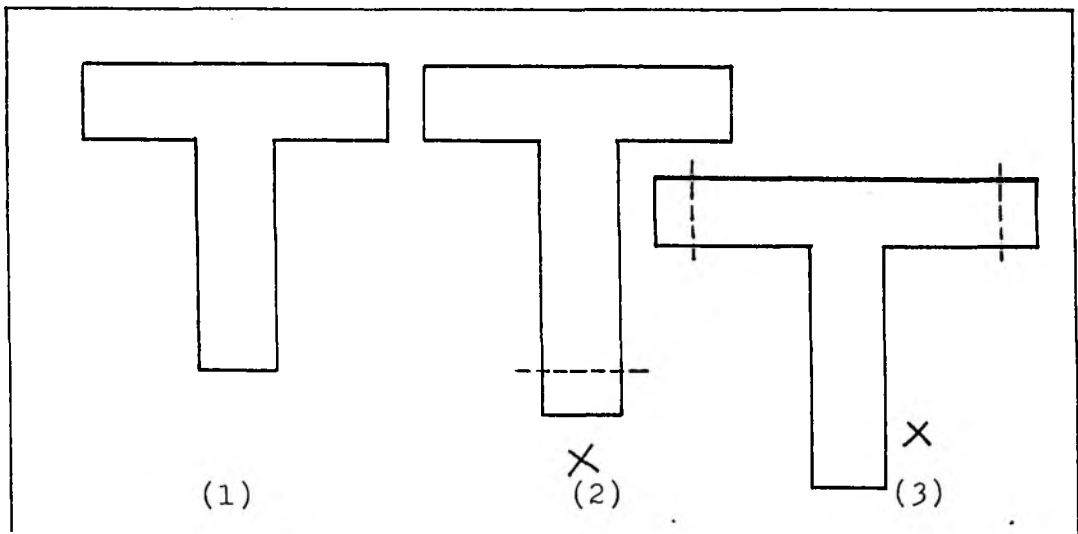


FIGURE XXXII



27 First, draw parallel lines with pencil. Secondly, determine the placing of the letters with a soft pencil. Thirdly, hold your hand steady as you practice a felt-tipped 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. Some examples are given in Figures XXXIII to XXXVII.

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 scribe pen with regular Indian ink. Trace each letter, space between letters by the eye - the optical distance method. Other lettering aids are Econasign, Uno stencils, Card or Metal cutouts, Rapidograph, Letraset etc.

Conclusion

29 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 etc. 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.

30 Lettering is PRINTING done by hand.

Cautions to be Used in Lettering

31 The following points must be kept in view by those who would be doing lettering for their visual aids:

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

32 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.

FIGURE XXXIII

Koperasi

Fat and Thin

CEYLON '80

Ornamental and inflated

TEACHING

Slanted

PROJECT

Slanted

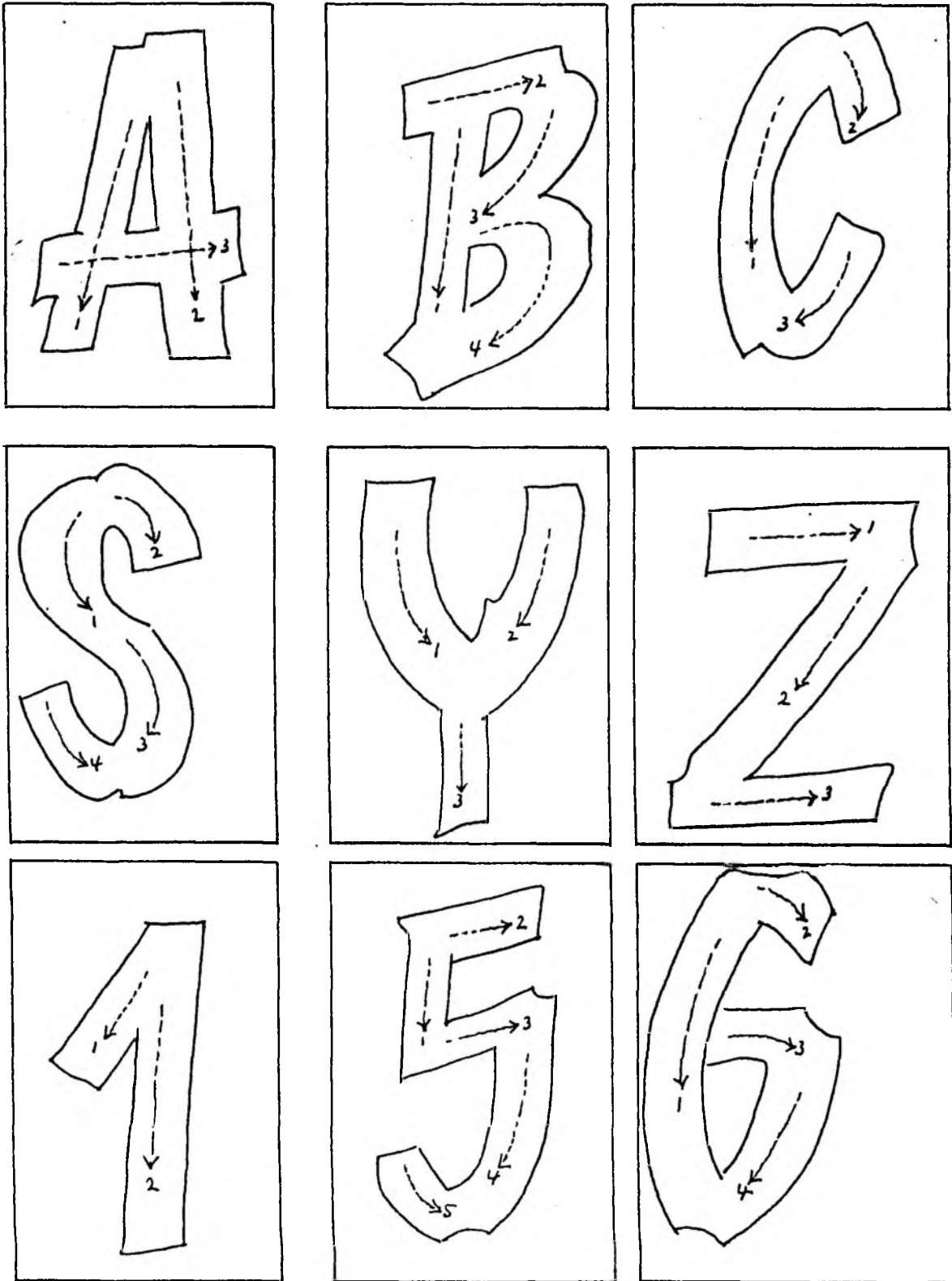
Cooperation

Straight and Firm

MEETING

Arched Words

FIGURE XXXIV



Arrows indicate the stroke of the feltpen and the figure represent the number of strokes.

FIGURE XXXV

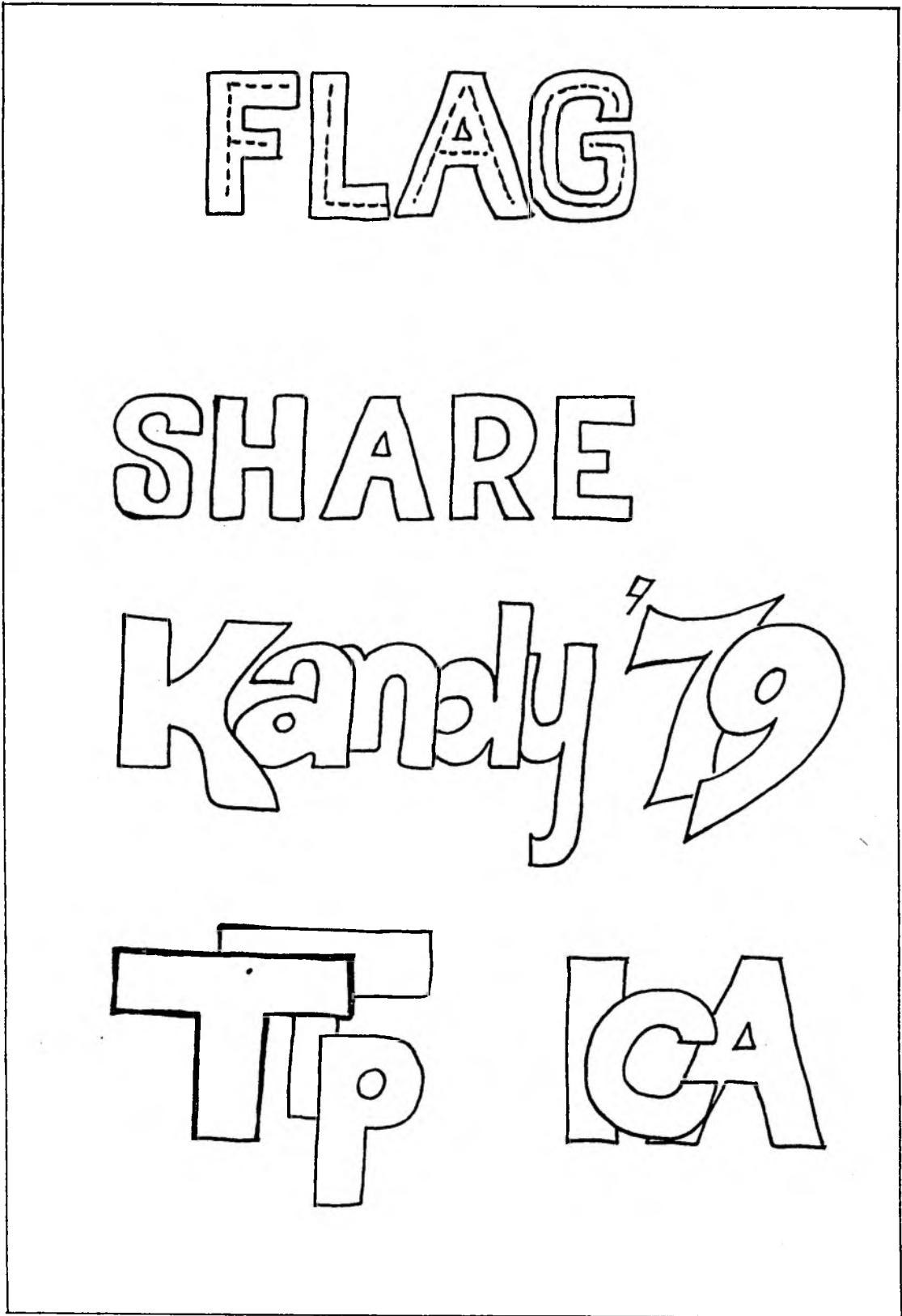


FIGURE XXXVI

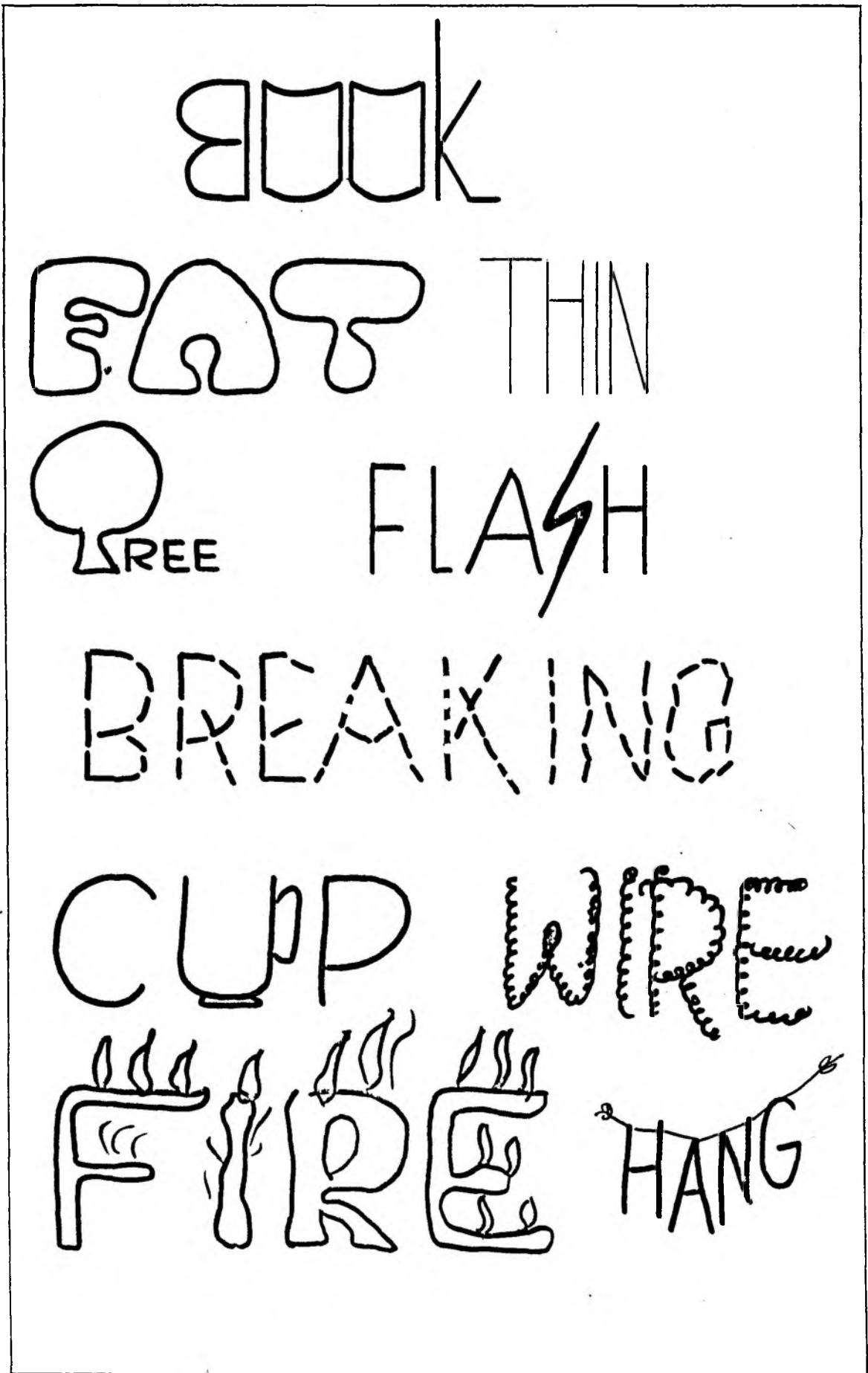
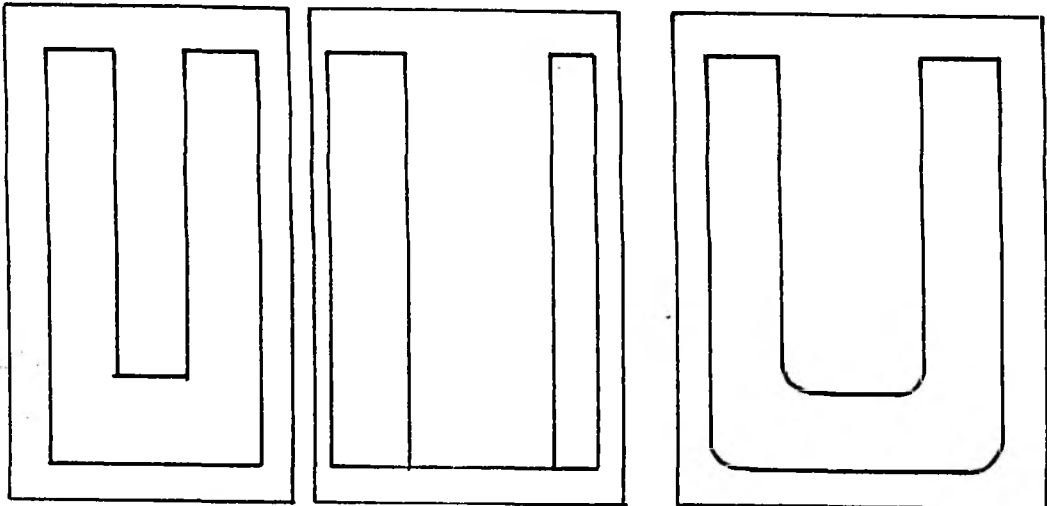
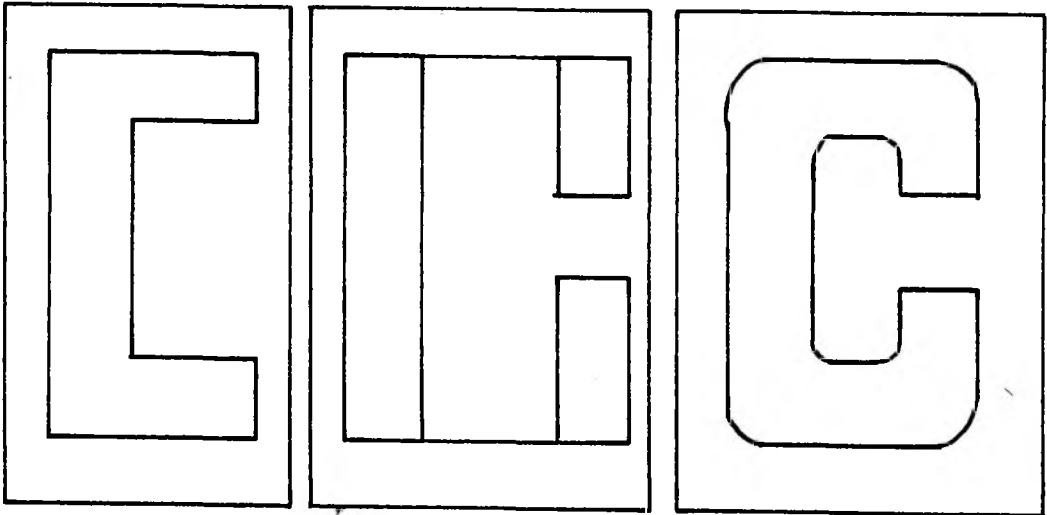
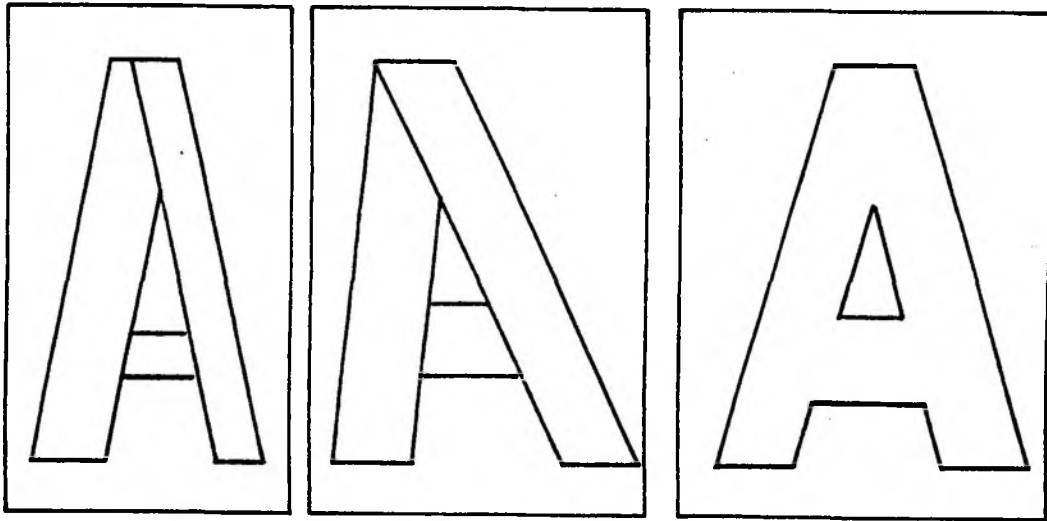


FIGURE XXXVII



Introduction

01 For all visual aids and graphic work you cannot obtain all the ready-made illustrations or photographs to support your text. Even if you are able to collect them, they may not be relevant to suit your needs. 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 and simple pictures.

02 During a number of training workshops on audio-visual aids that have been conducted almost all participants expressed their inability to draw any picture - say, of human beings, houses, farm machines and other processes and activities - but when they were told of drawing some simple illustrations reinforced with illustrations done on the chalkboard, they were able to produce something and with which they seemed to be satisfied.

03 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:

Proportions

Parts of body should appear to be natural and logical, components of farm machines should appear to be realistic, dimensions of the house and other buildings should appear to be natural and real;

Distinguishing Features

People have their features which are quite distinct from others. Asians look differently from the Africans, Japanese wear different clothes than the Westerners, a farmer has a different appearance than the city dweller and so on;

Body Movements

Parts of body move differently. Movement of legs, movement of arms and sitting postures are quite different and they need a careful observation.

04 In order to combine these factors properly, it is recommended that some basic principles should always be followed. With the understanding of these principles, it is also essential that some practice-work is done. A more frequent practice will make you perfect. The practice depends on observing people, things, and operations carefully and copying some of the already printed material.

05 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

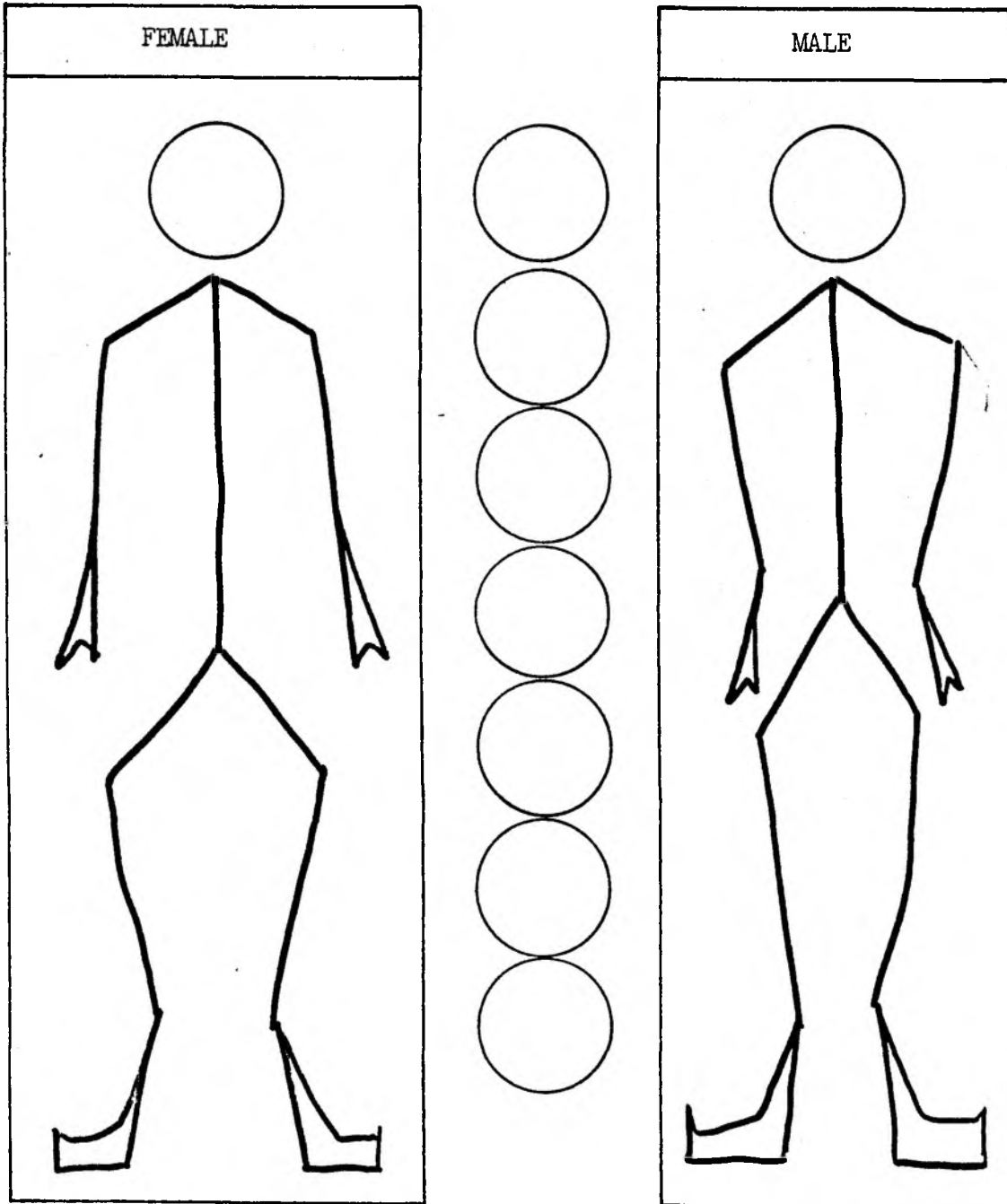
06 To begin with you need the following material:

- a plain paper;
- a 50 cents coin;
- a pencil (or a felt pen);
- a rubber/pencil eraser; and
- a foot ruler.

07 Proportions in a figure - human figure, to begin with - are very important. Follow the process explained below and you will gradually understand the importance of proportions in a human figure. The body is divided proportionately, and in drawing human figures, these proportions have to be maintained (Figure XXXVIII).

- a. With the help of the 50 cents coin draw seven circles, one underneath the other;
- b. 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 in the illustration;
- c. Now repeat the same process to make a female stick figure. Notice that the females have narrower shoulders and wider hips so you will make some adjustments;
- d. Now try drawing a female figure next to the one you have just completed, only this time you do not use the coin. Try to judge with your eyes the correct proportions of the body;
- e. 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 will also 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;
- f. 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.

FIGURE XXXVIII



08 What do you get now - a properly proportioned human figure - one male and one female. Try to exercise this example at least five times (Figure XXXIX). 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 and develop your own style. Then try one female figure on a piece of paper and a male figure on another piece of paper and do not make use of circles.

09 Another effort, but this time you enlarge the figure, say twice the size (Figure XL). 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. The artist is now building in you.

10 One point of caution, however. DO NOT keep you hand and fingers tense. Allow them to move freely. If you are stiff, the lines would be distorted and you are likely to smudge the paper. Do not be tense.

Facial Expressions in Simple Human Figures

11 Besides the proportions of body, there are proportions in each part of the body of the 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 figure, we should take note of the location of various parts and their proportions.

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 that 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 really essential. The figure must be able to convey the message - as easily and effectively as possible.

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

- At the top of your paper, quickly draw a series of ovals or circles. Draw these circles freehand. Make them sufficiently big and bold. Make about 10 of them;
- Expressions of the face change with the shape of 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 eye be and the possible placement of the pupils!
- Draw the eyebrows and eyelids. Experiment depicting different expressions;

FIGURE XXXIX

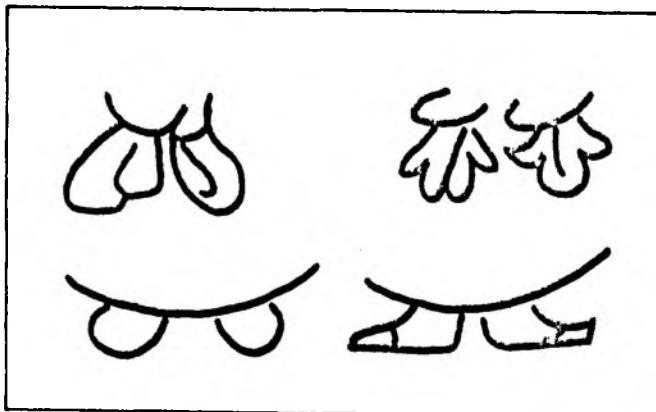
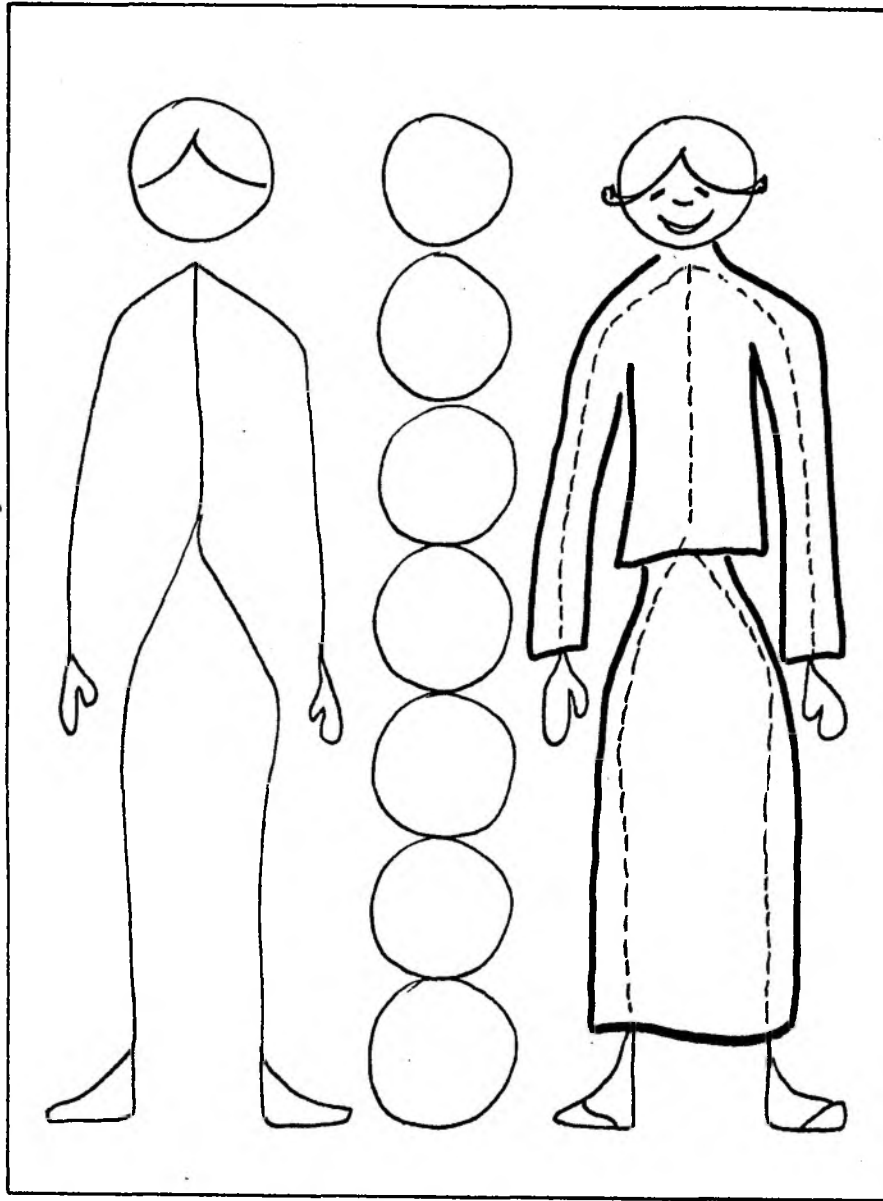
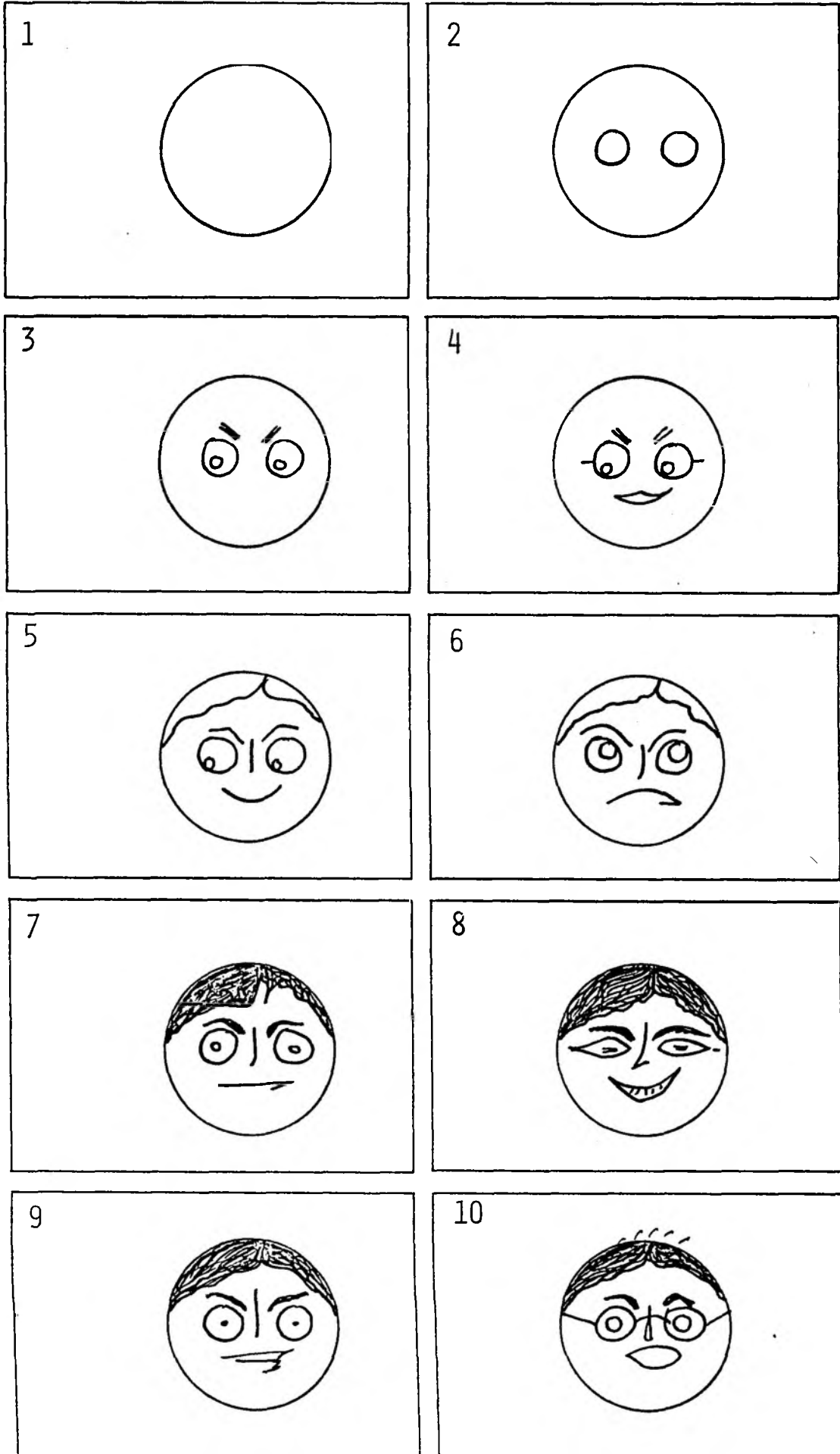


FIGURE XL

FIGURE XLI



- The mouth is yet another facial feature which gives us an idea of a person's feelings and so on. Draw the mouth and lips in different positions and try to change the expressions. Try to keep an association with the eyes, eyebrows and lips and you will notice the difference. These expressions communicate a lot.

14 Now you have mastered the basic steps in drawing simple facial expressions. You will now begin adding your own touches. Select a few of the faces you have just completed and go back and add a few more details e.g., hat, hair, etc. which are common and which could identify with the people you work with. You can now add some colour now. Some examples are given in Figure XLII.

Stick Figures

15 Stick figures - or the matchstick figures - are very simple and they communicate quite effectively because they do not have much of details. Just place about 10 matchsticks in front of you and try to play with them (Figure XLIII). You can bring movement in stick figures by placing the sticks differently. You can place them on the Overhead Projector glass plate and the results on the projection screen would be extremely fascinating and interesting.

Other Figures

16 By observing people and by looking at some line drawings you can also produce some working illustrations to support your teaching work. A number of examples have been included in this chapter (Figure XLIV to LVI). It would be a good idea to copy them for purposes of practice.

Conclusion

17 In the presentation of simple visual aids, it is necessary that some simple illustrations and figures are also included in order to create interest and to sustain interest. Keep the figures simple and details-free. They have to be meaningful and they should be able to communicate with the people, of course, through you.

18 In drawing simple human figures take note of the proportions of the human body, distinguishing features such as face and dress and the movement of the body. In order to draw these simple figures you have to follow some simple rules and to do a lot of practice.

FIGURE XLII

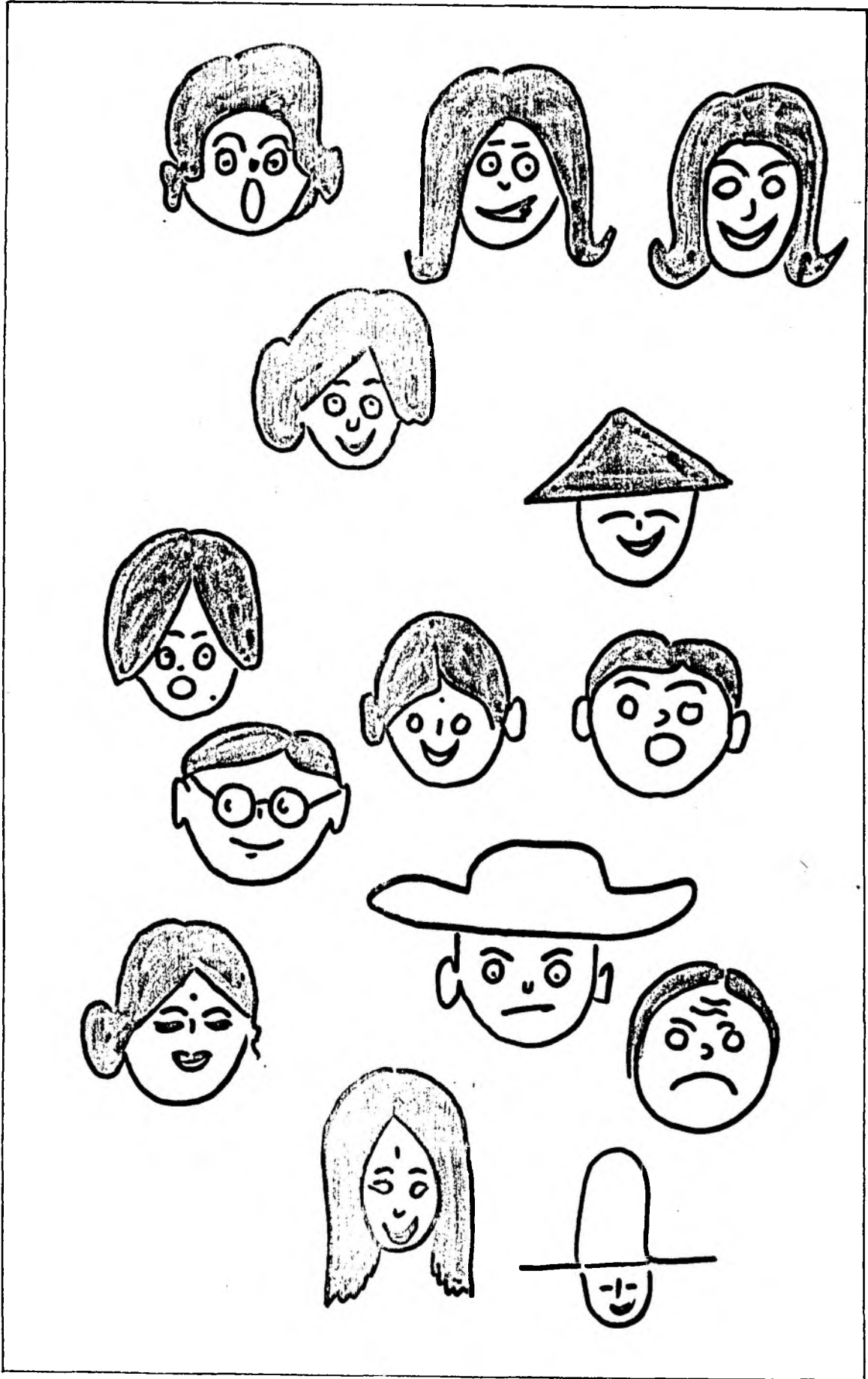


FIGURE XLIII

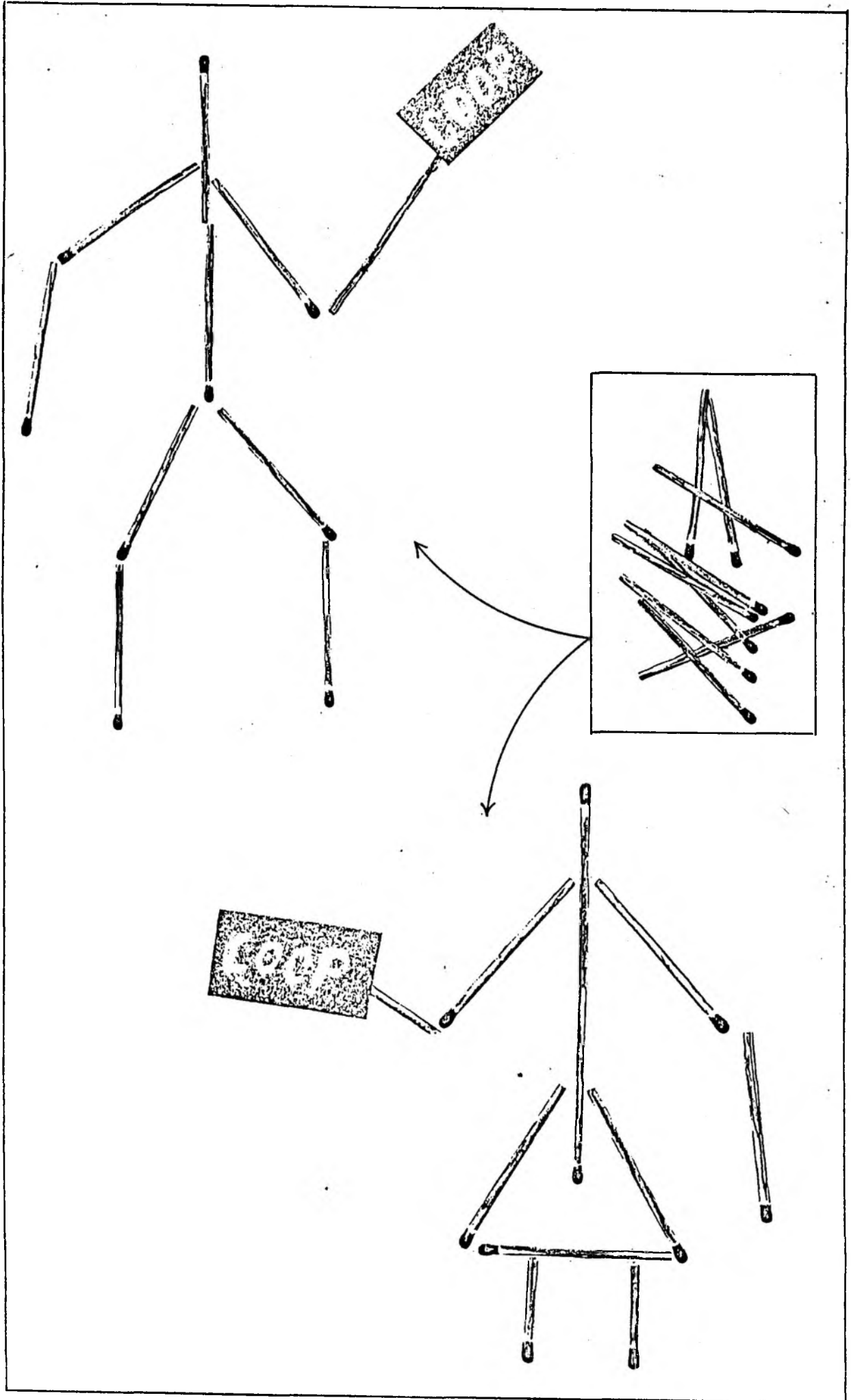


FIGURE XLIV

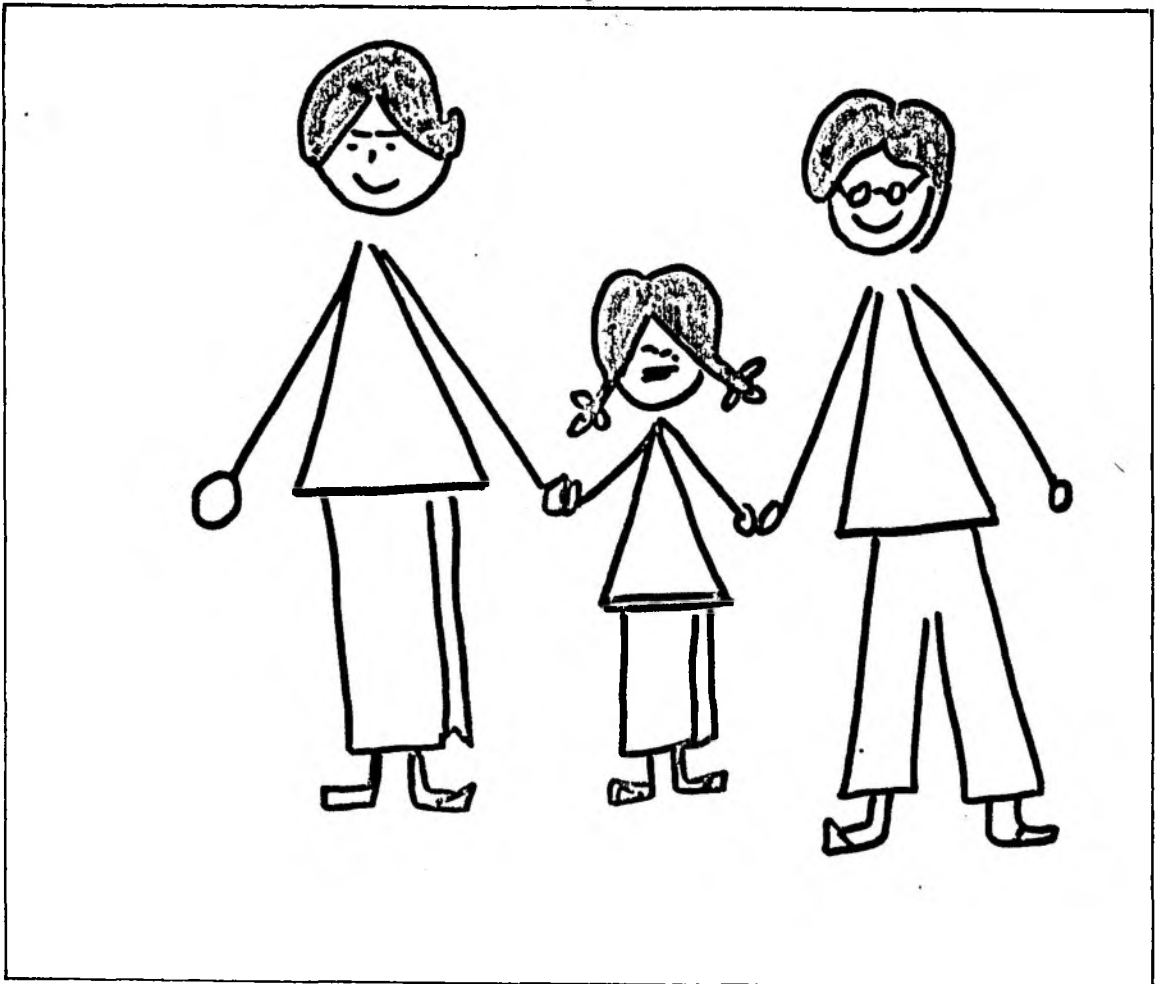
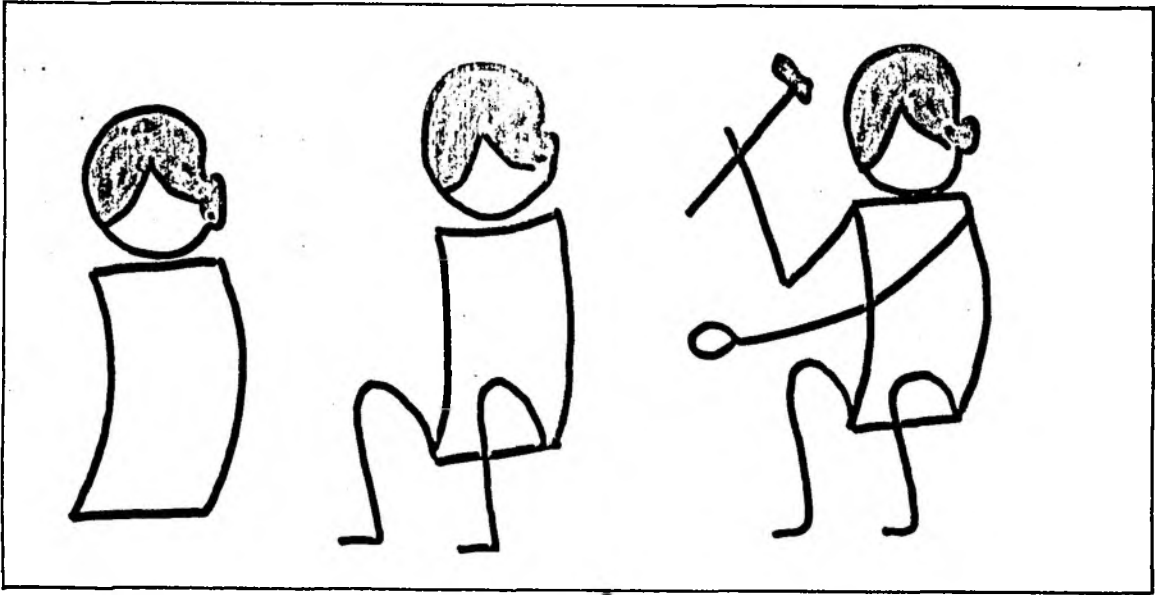


FIGURE XLV

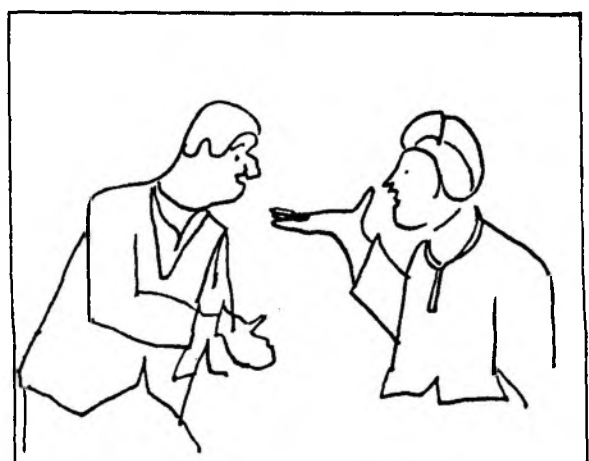
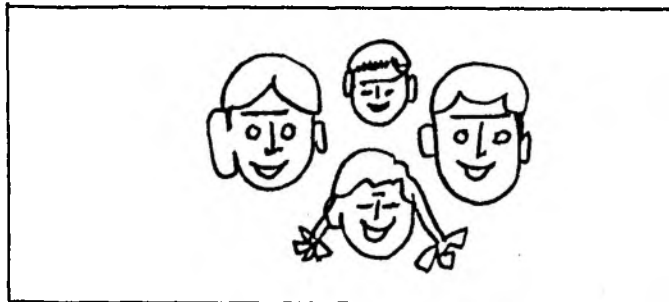
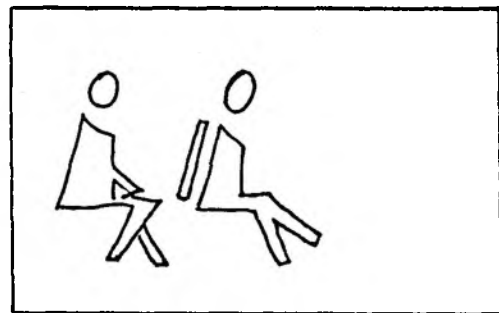
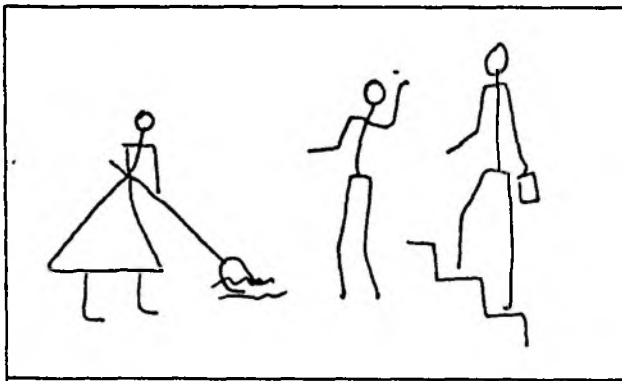
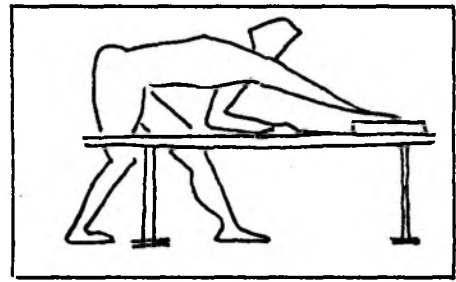
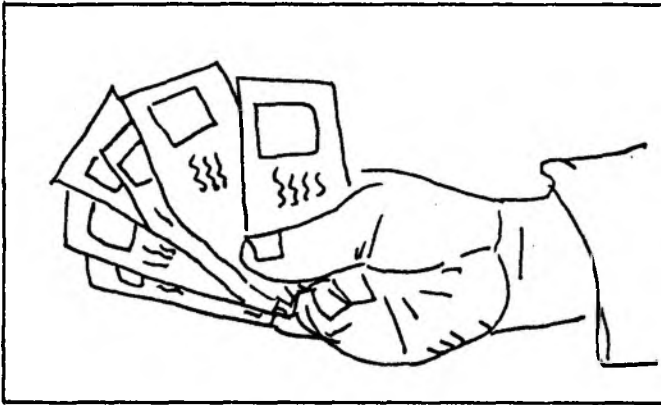
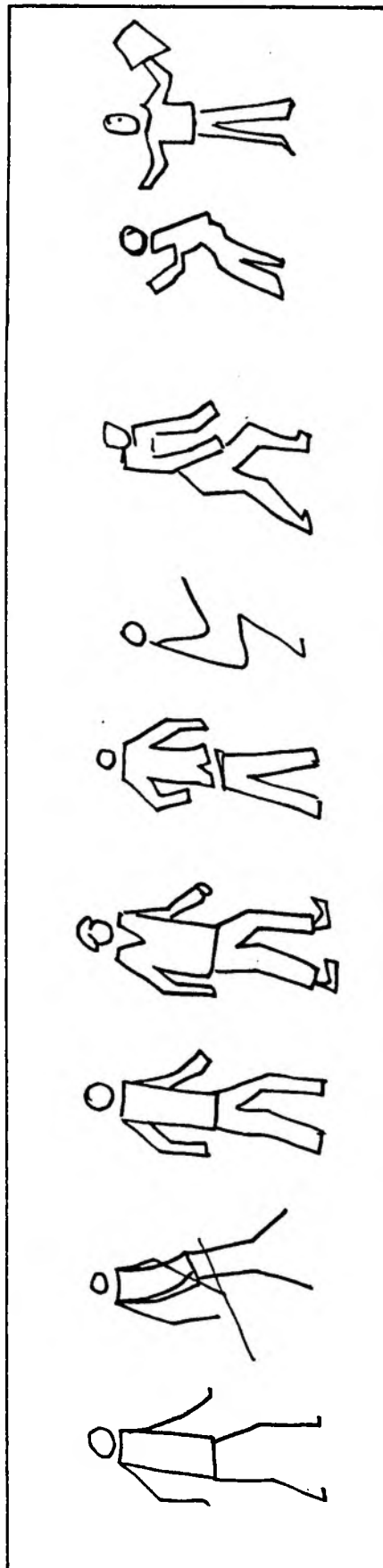
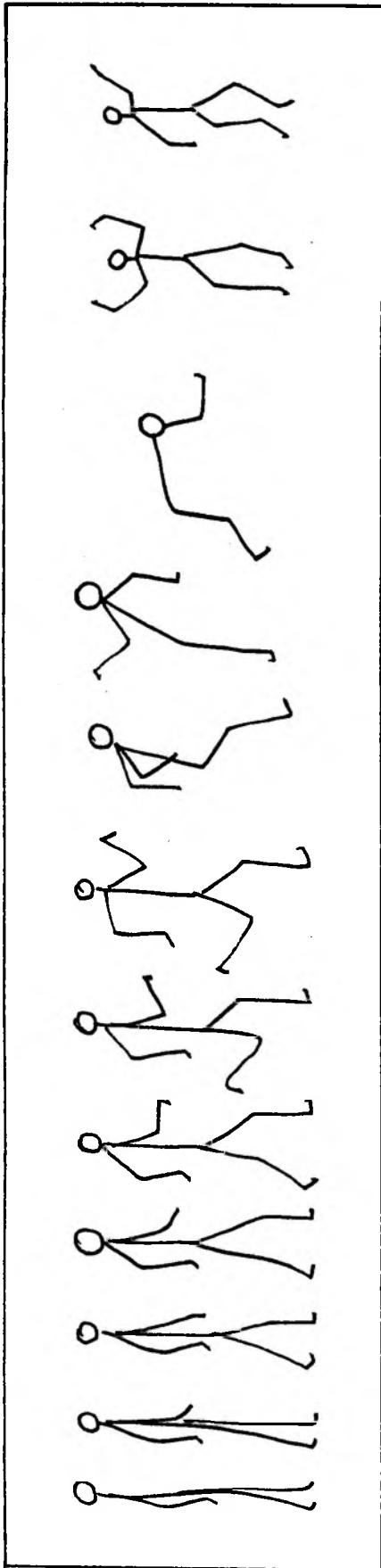


FIGURE XLVI



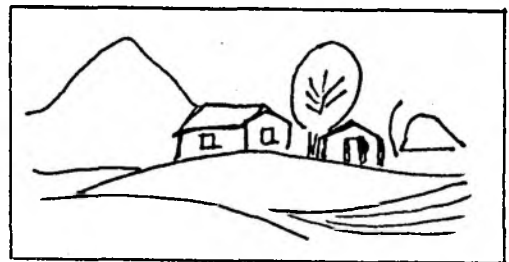
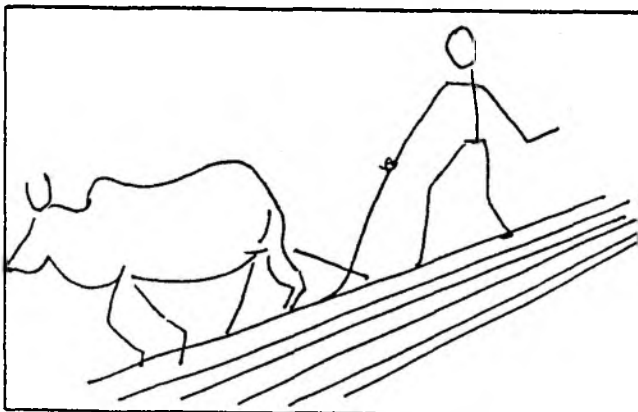
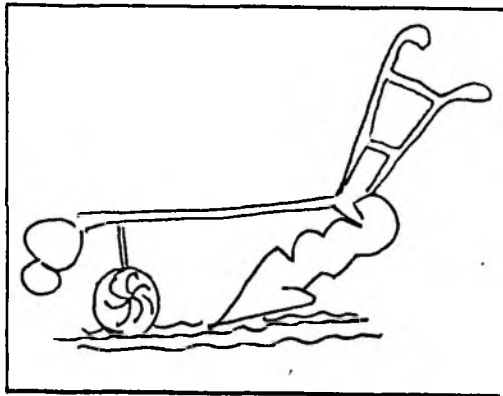
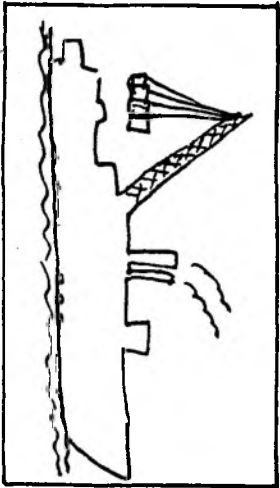
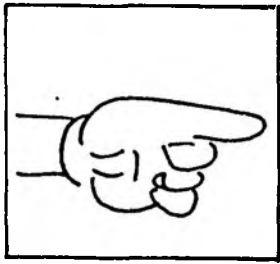


FIGURE XLVIII

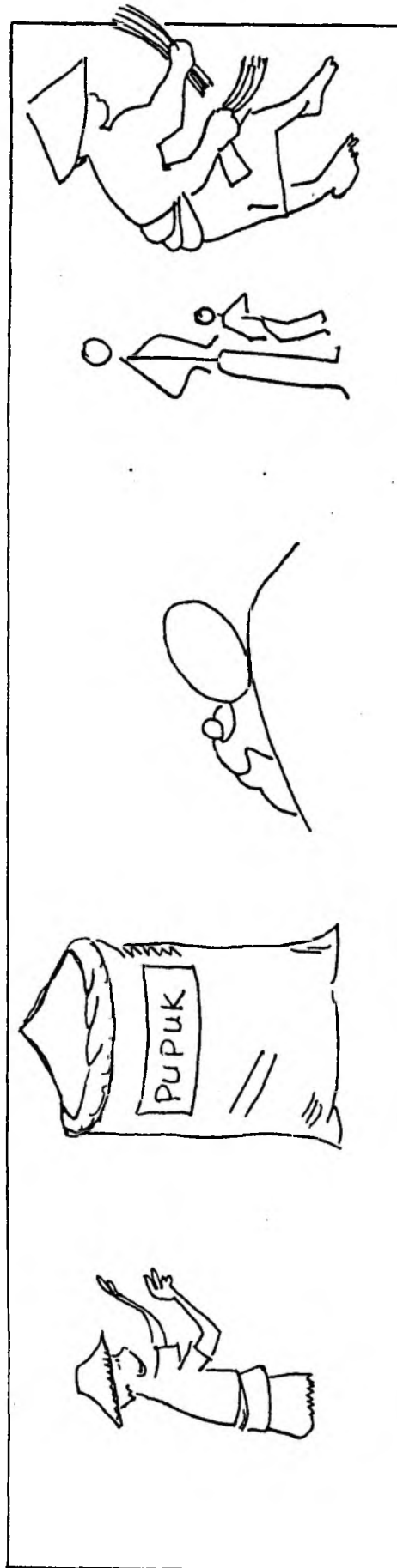
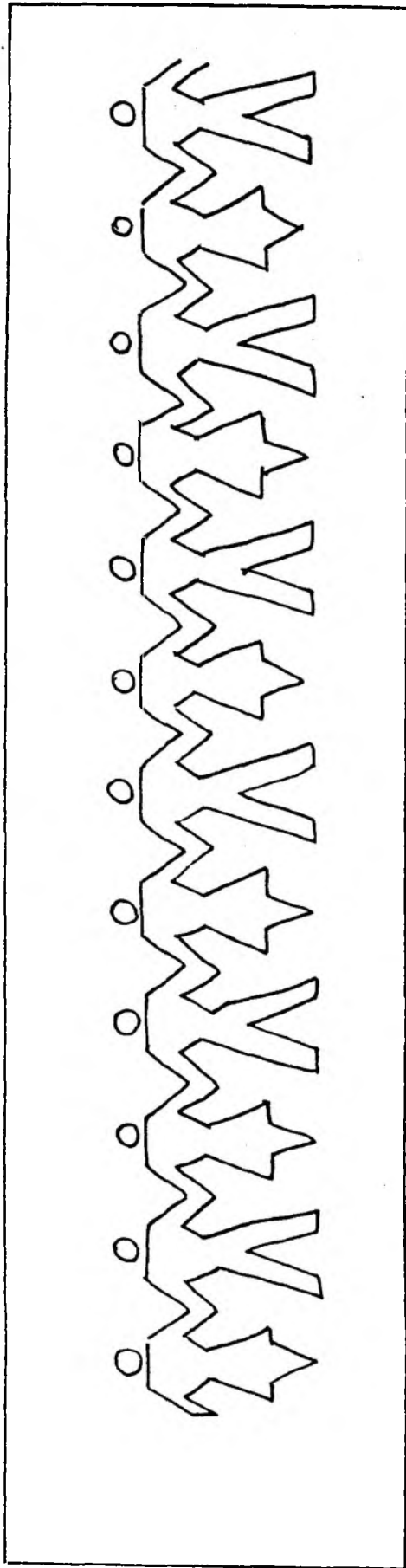
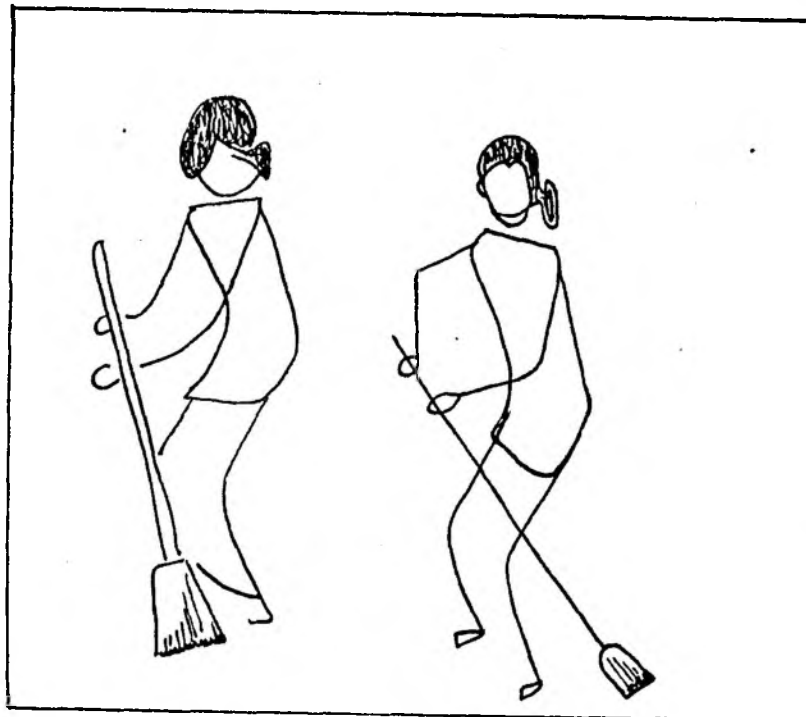
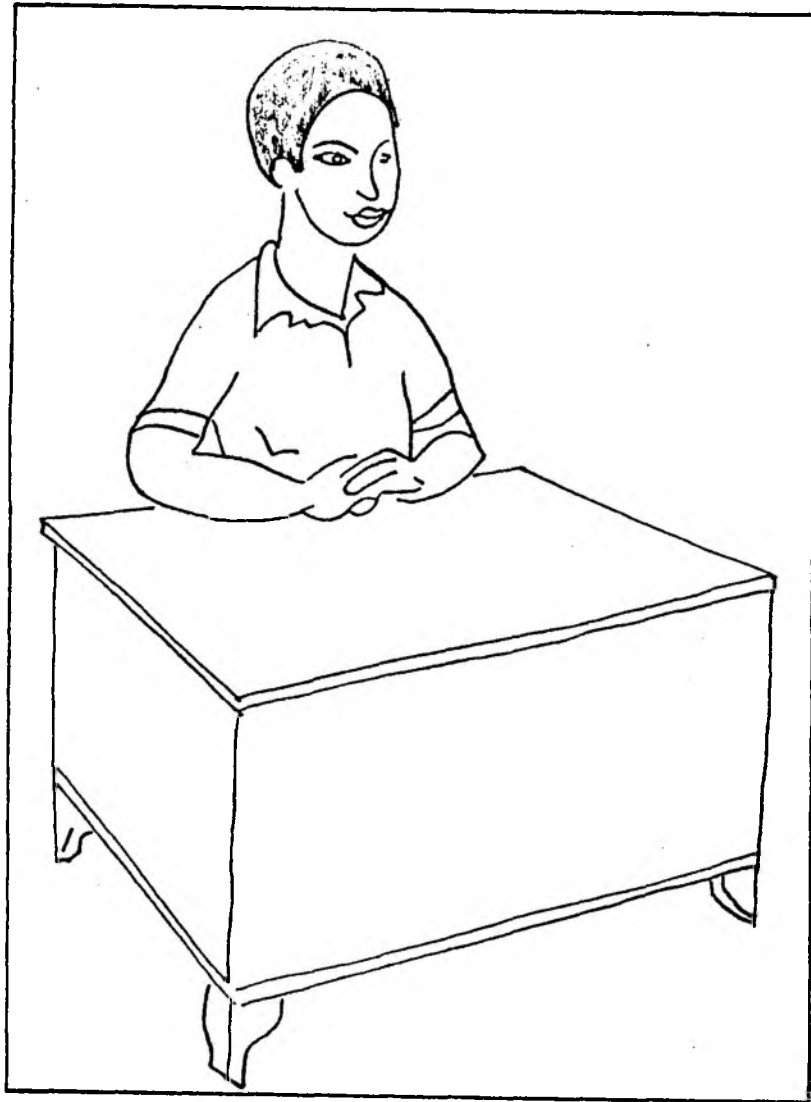
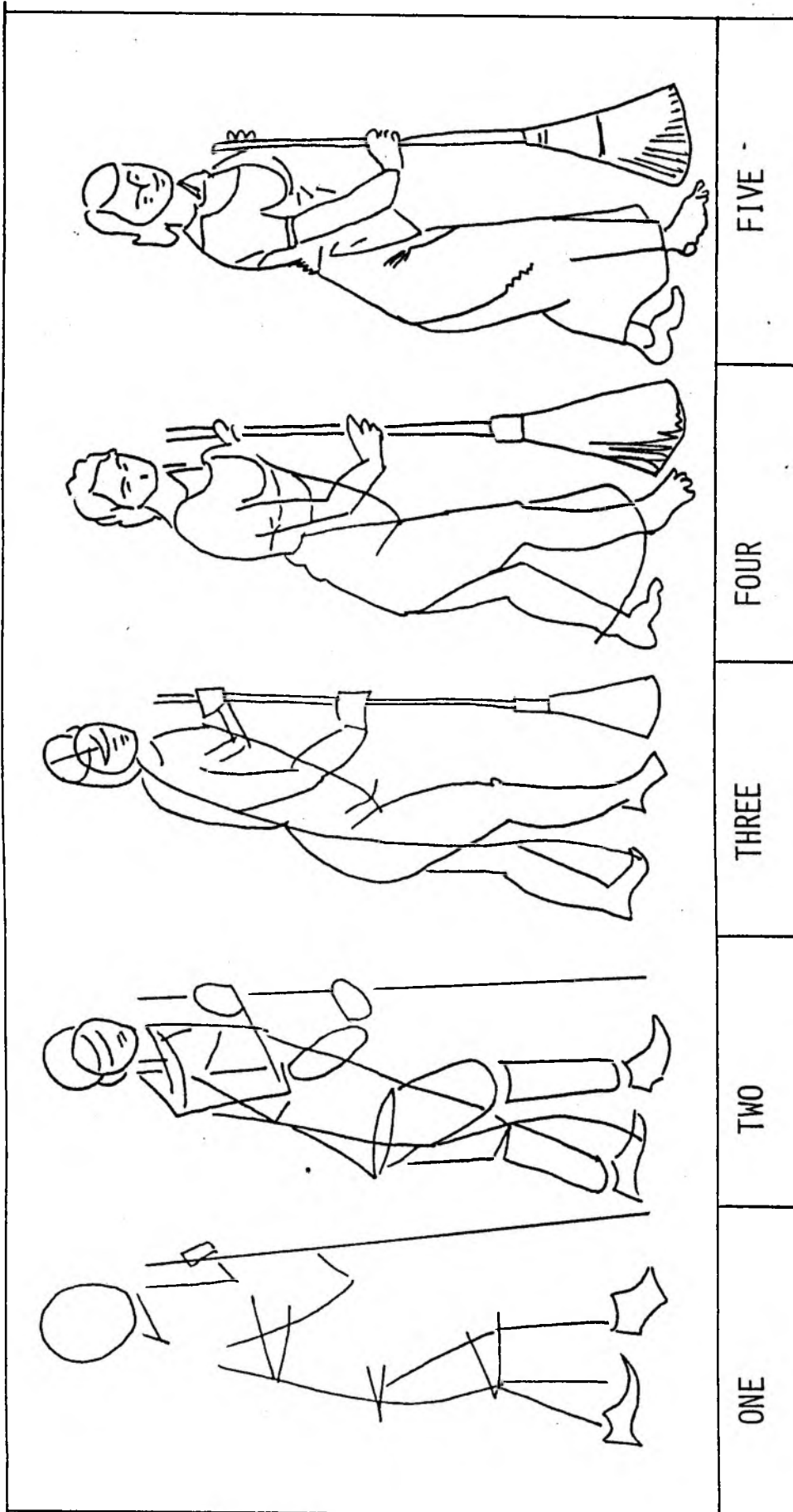


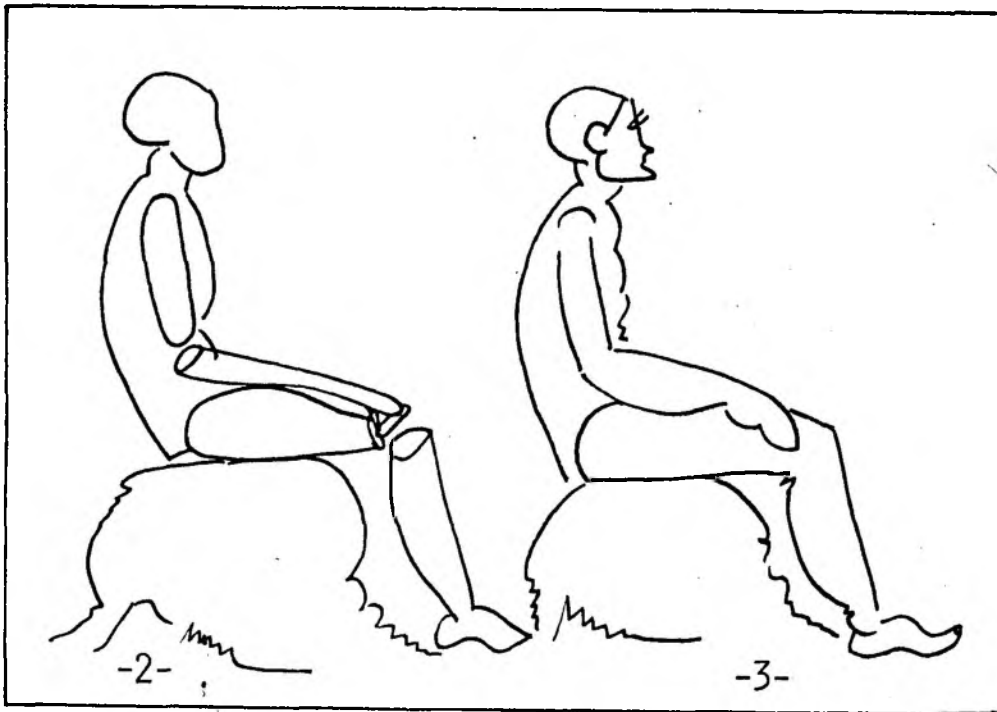
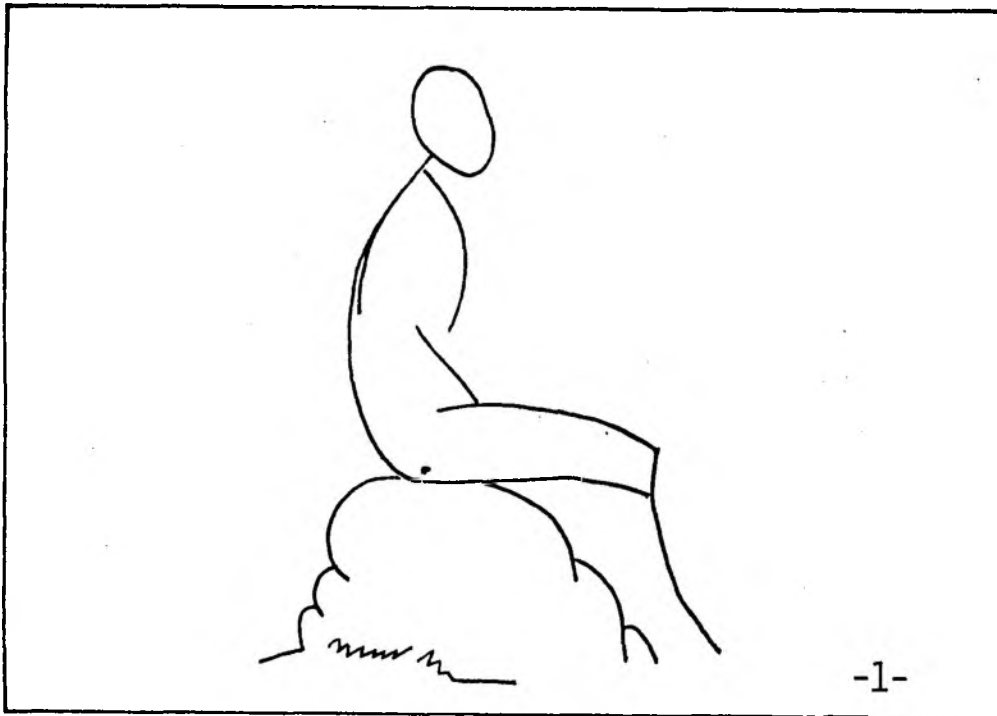
FIGURE XLIX



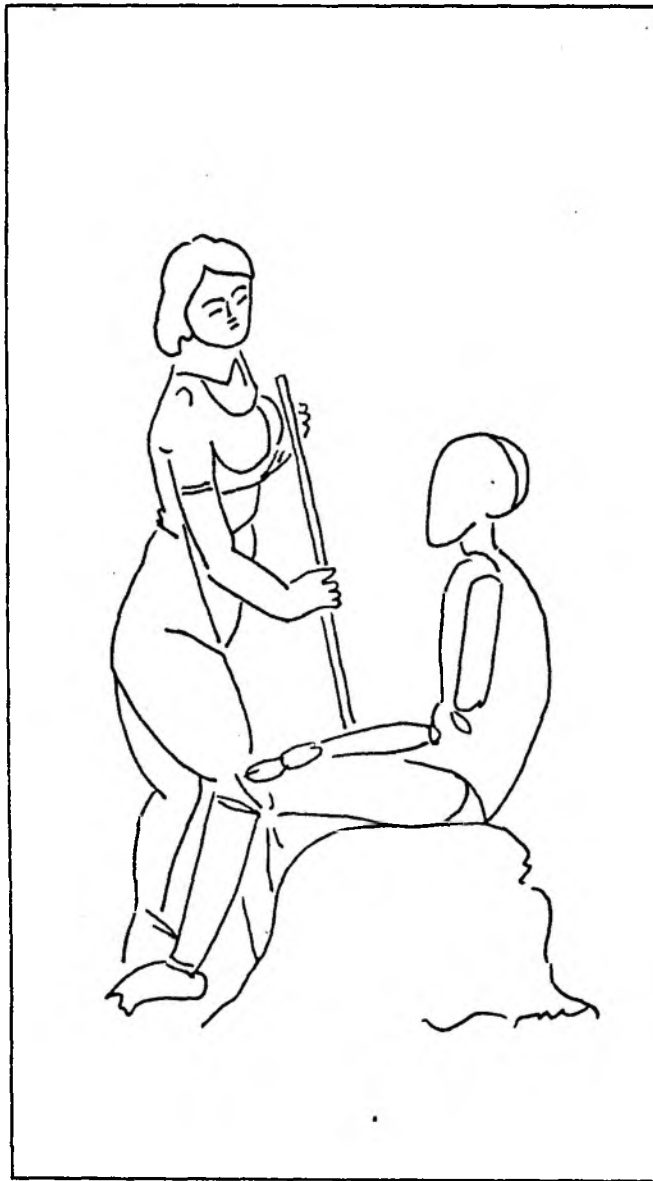
DRAWING A HUMAN FIGURE



DRAWING A HUMAN FIGURE



DRAWING A HUMAN FIGURE



Combining Technique of Simple Figures

These figures appear elsewhere in this Handbook. With the help of tracing paper or with the help of a light-table you can easily combine pictures to suit your requirements. It is only a question of imagination...The figure 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 the pictures....

FIGURE LIII

DRAWING A HUMAN FIGURE

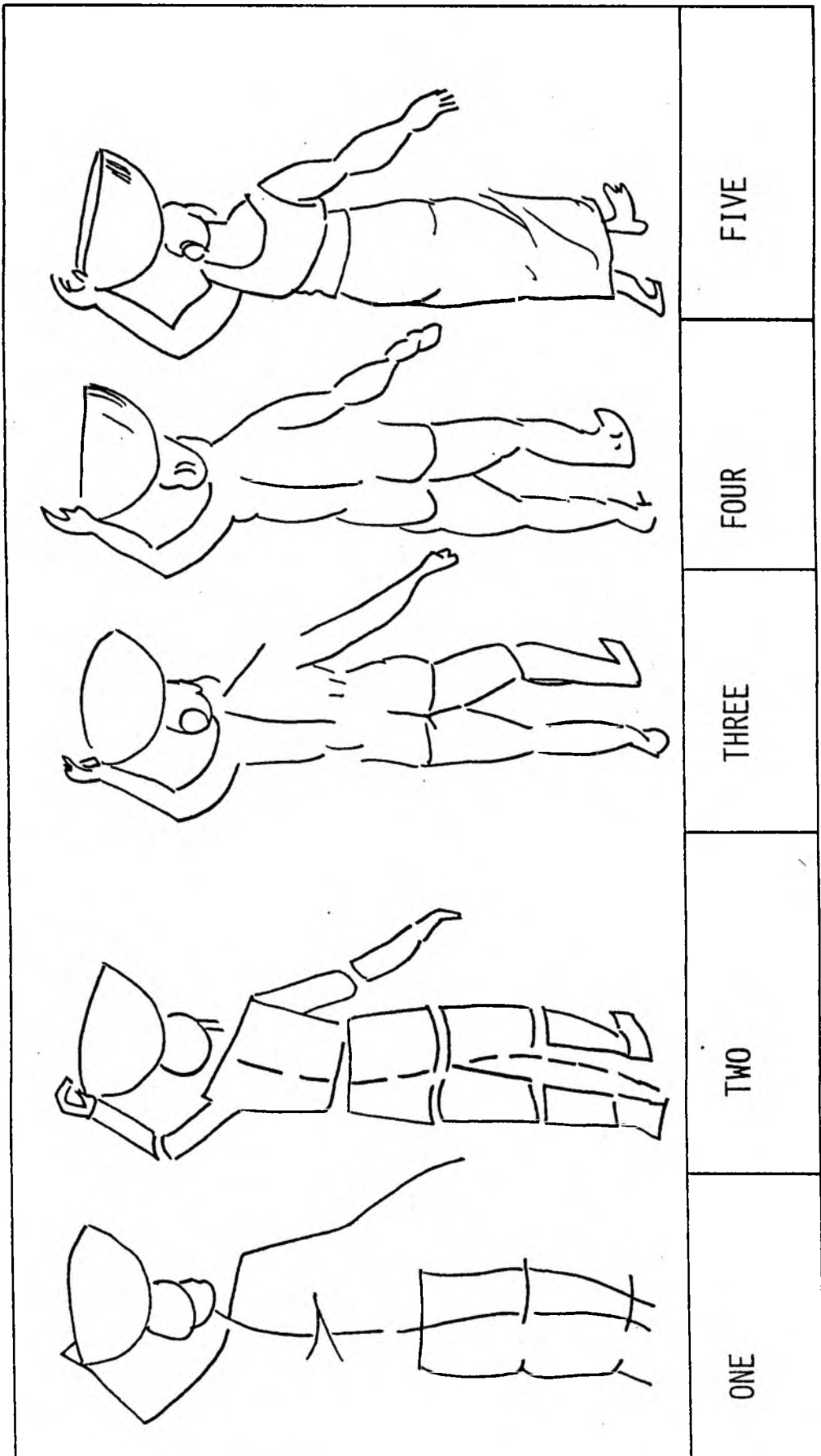


FIGURE LIV

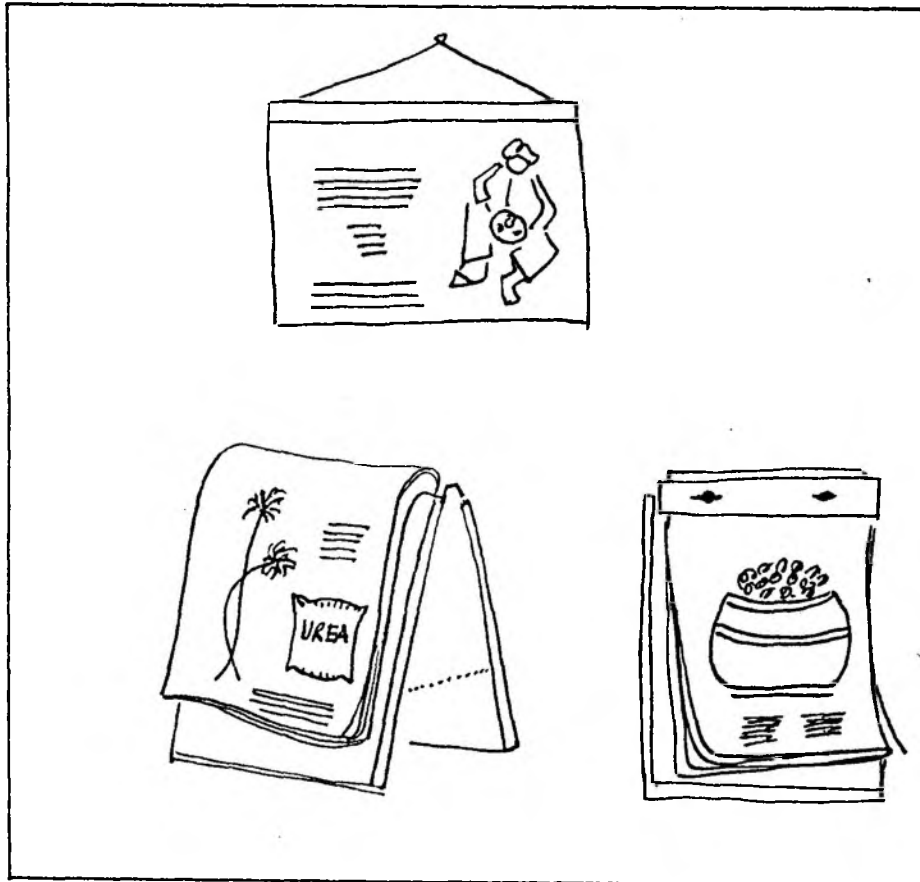
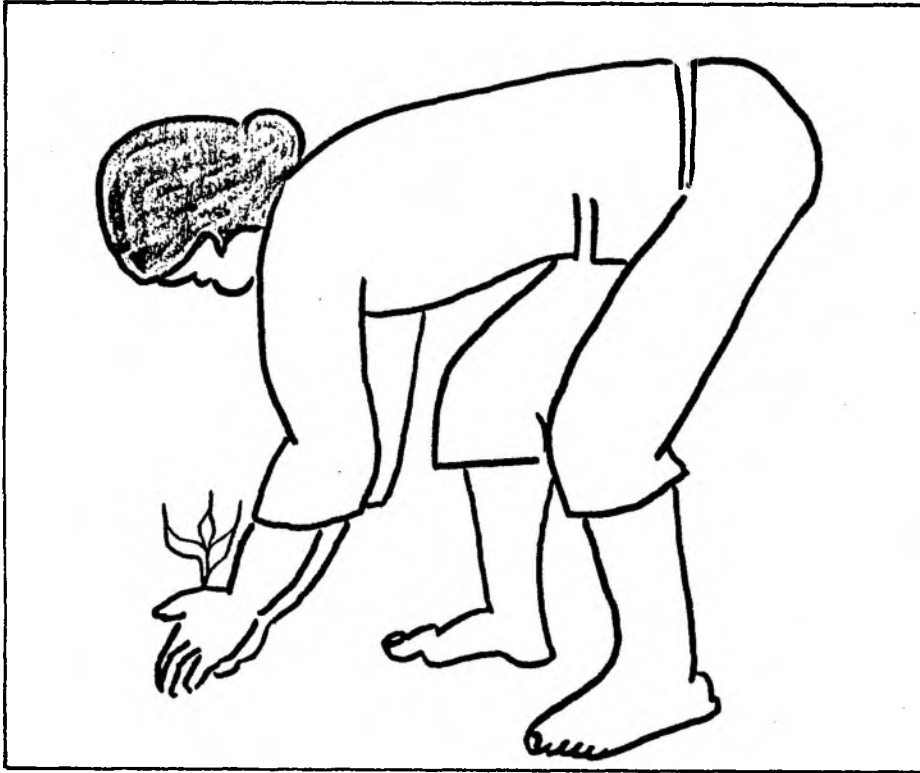


FIGURE LV

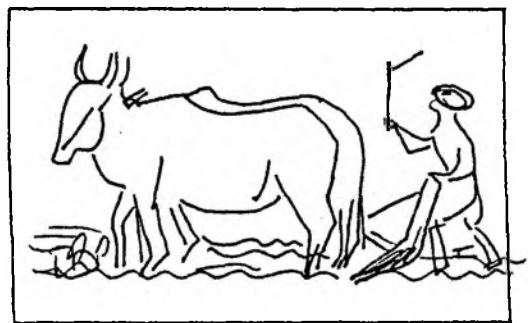
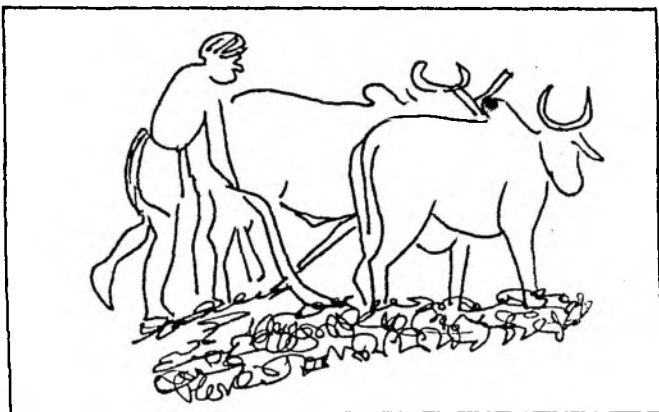
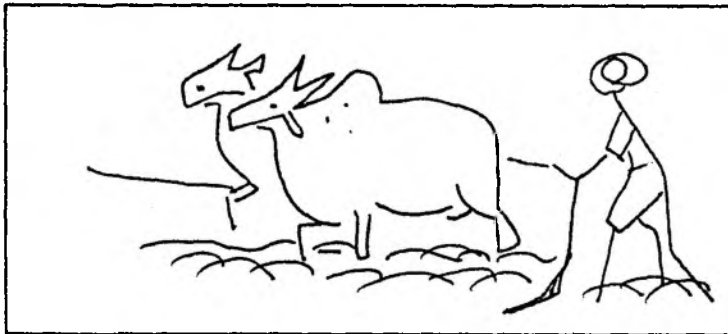
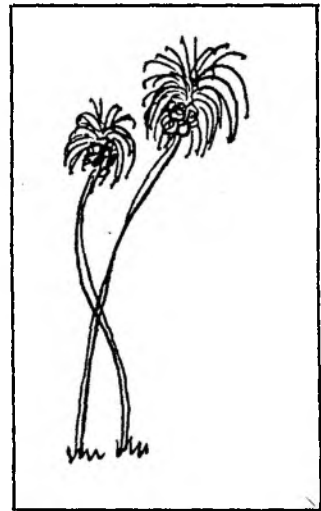
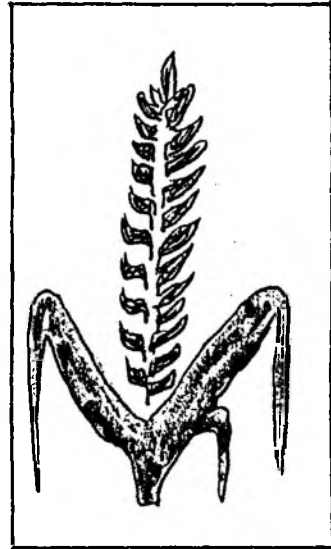
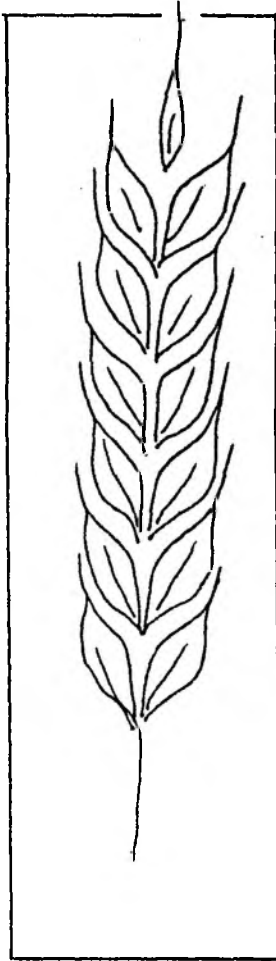
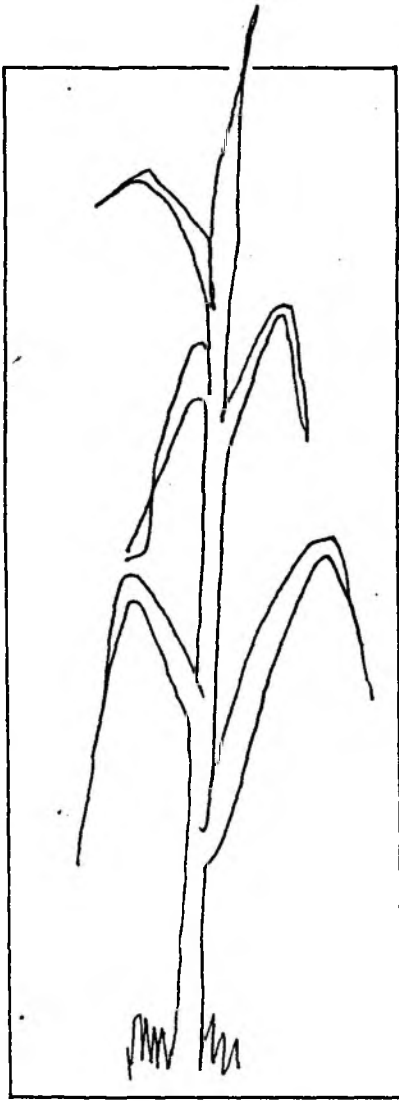
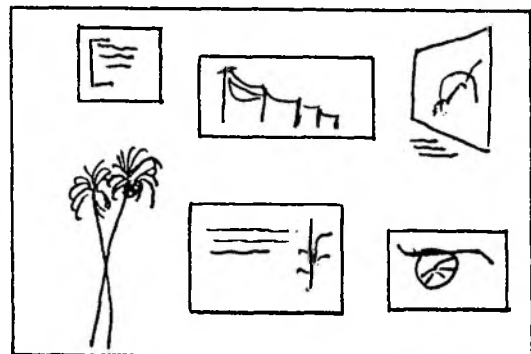
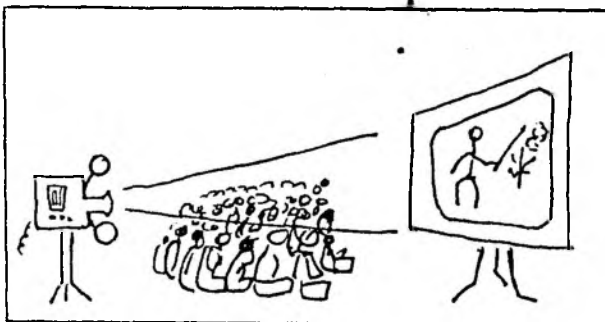
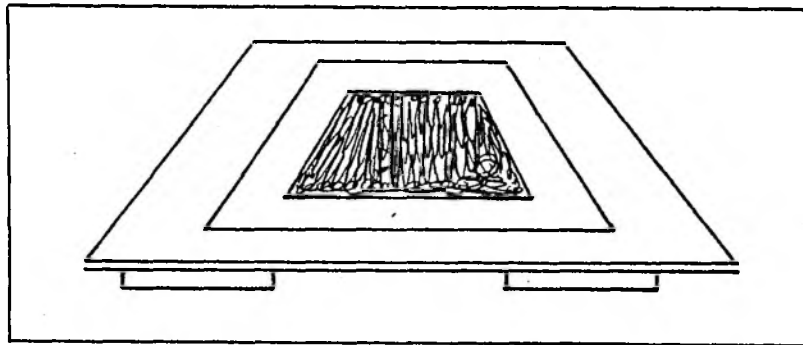
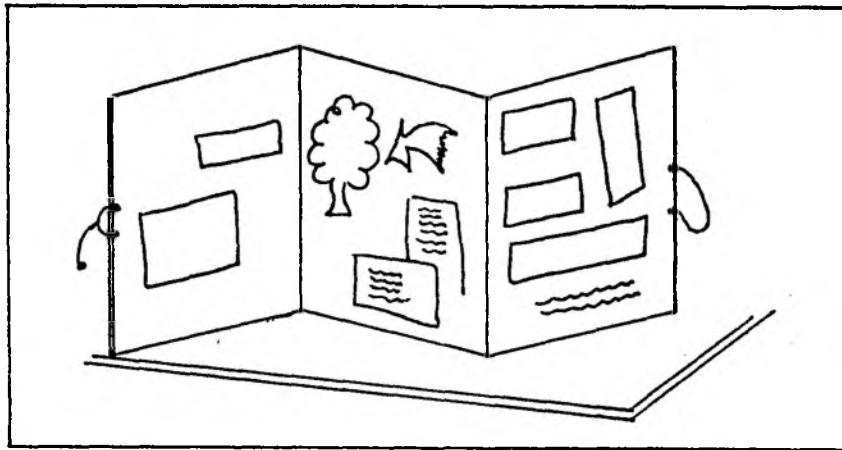
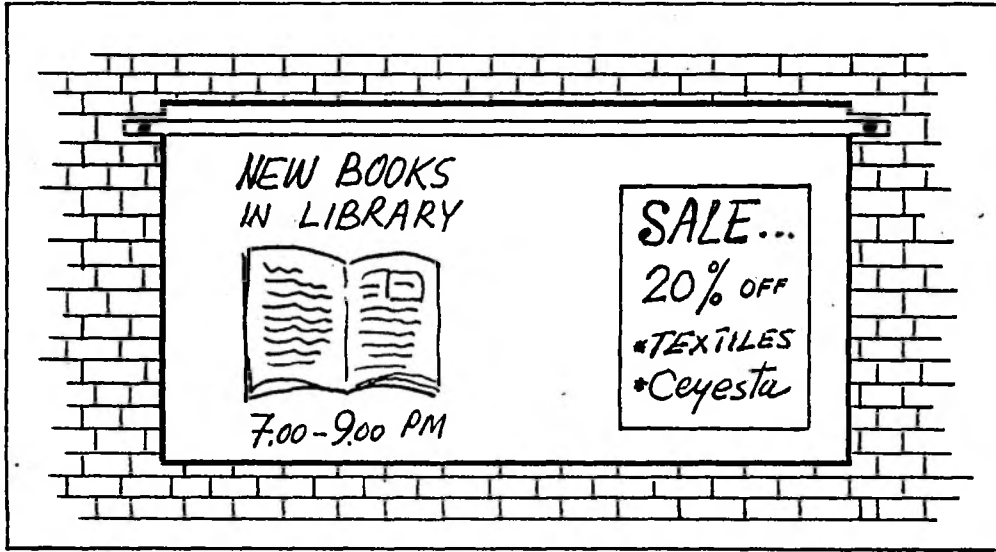


FIGURE LVI



Introduction

01 In the preparation of audio-visual material, the role of graphics cannot be overemphasised. All visual aids have visuals i.e., illustrations, pictures, sketches and text i.e., captions, headings and statements. Graphics are instructional materials that visualise and simplify ideas and facts. They convey meaning mainly through relatively conventionalised symbols that are nearer to reality perceptually than verbal symbols, and relatively farther from reality perceptually than pictures. Graphics catch and hold our attention through symbolic representations to clarify ideas and to highlight the main points of a topic. They represent the subject-matter in a condensed and understandable form. Graphics, in the professional language, indicate materials which illustrate ideas, objects, concepts and processes boldly, clearly and vigorously through a synthesis of drawings, pictures and words.

02 Graphics develop a forceful shorthand language. Their basic functions are to attract attention, convey meaning clearly and facilitate learning. They make an impact on the reader. They have universal appeal and their educational values are manifold.

03 We, field cooperative educators and trainers, depend to a great extent on some simple graphic material which is produced by cooperative organisations and other similar training and education organisations. We try to make use of this material for our adult education work. Since the resources available with the cooperative organisations - particularly the promotional organisations - are rather limited, it is not possible to think of producing films, slides and filmstrips and to make use of other mechanical devices. We have to be satisfied with the production of simple graphic material e.g., charts, posters, graphs and other display material.

Charts for Teaching

04 A chart is a systematic arrangement of key factors or ideas in a graphic or pictorial form. It is a representation that depicts logical visualisation of relationships by summarising, comparing or contrasting in explaining the subject-matter. Common usage has given charts a wider meaning. They include a variety of graphic forms. Some of the most common names given to this aid are: organisational charts, flow charts, tree-charts, circular charts etc. etc.

05 Cooperative educators 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 training aids.

06 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 and other similar gatherings.

07 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. Flip charts are an example.

08 The size of lettering is very 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?

09 We can expect the following from these teaching charts:

- Save time spent on preparing an 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; and
- Be used in conjunction with the chalkboard.

Kinds of Charts

10 These are generally made on large size paper. A layout has to be followed first and then the final work is done on the paper. There are various kinds of them: organisational charts - showing the organisational structure of an institution or showing the process of some activity; flow charts - showing how the activity is performed or how a certain product is made in a factory; tree chart - showing the branches of some activity and so on. Some examples of these are given in Figures LVII-LX.

11 One special type of chart is called the Chart with Windows and Strips (Figure LXI). This chart enables the user to let his audience practice the process one by one and summarising the entire process by placing the correct information on the chart. There is some movement in the chart and the information can be easily and effectively conveyed, discussed and summarised.

Wall Charts

12 Wall charts 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. These are mostly the sloganised charts.

ORGANISATIONAL CHART - AN EXAMPLE

ORGANISATIONAL STRUCTURE OF A COOPERATIVE SOCIETY

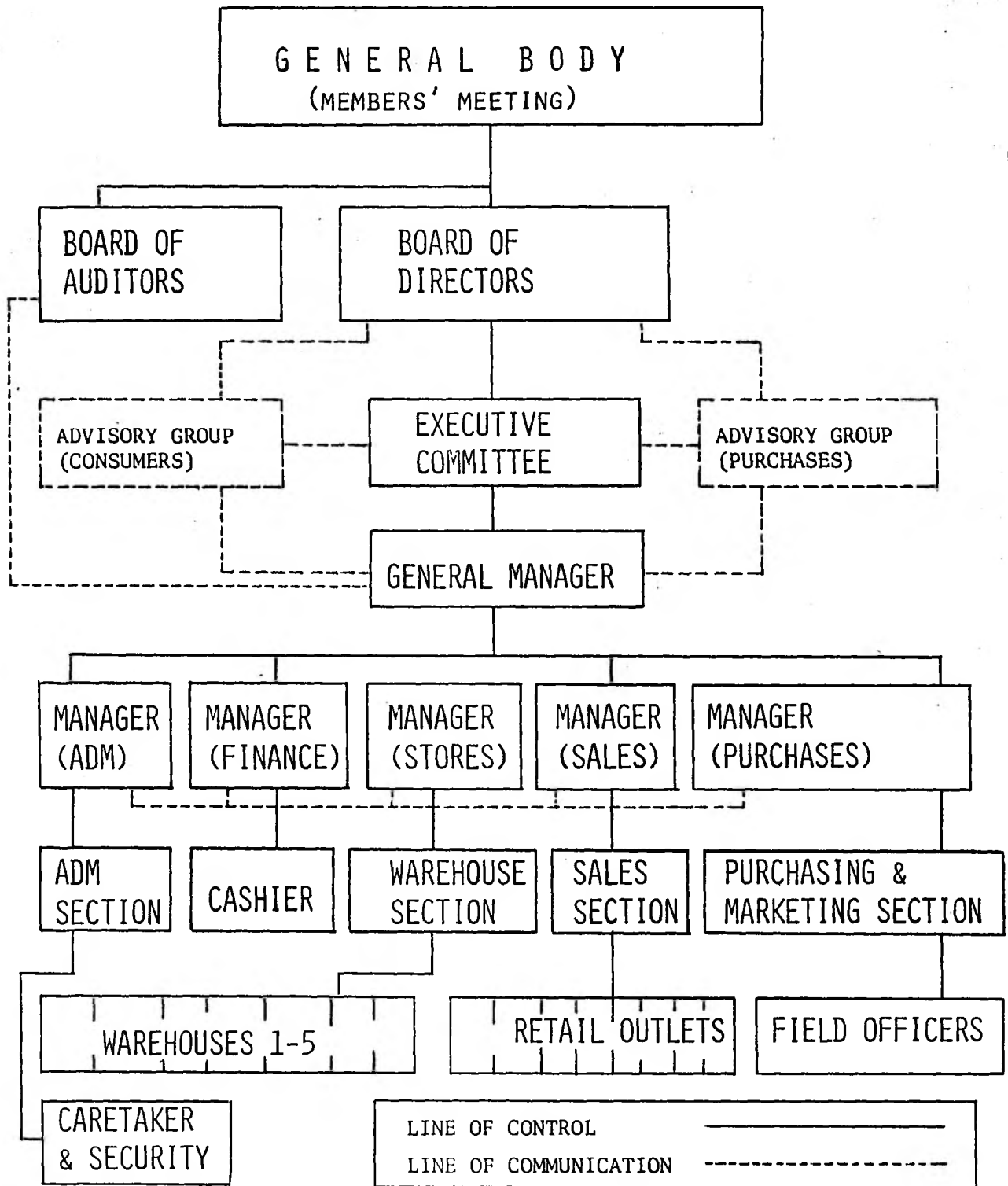


FIGURE LVIII

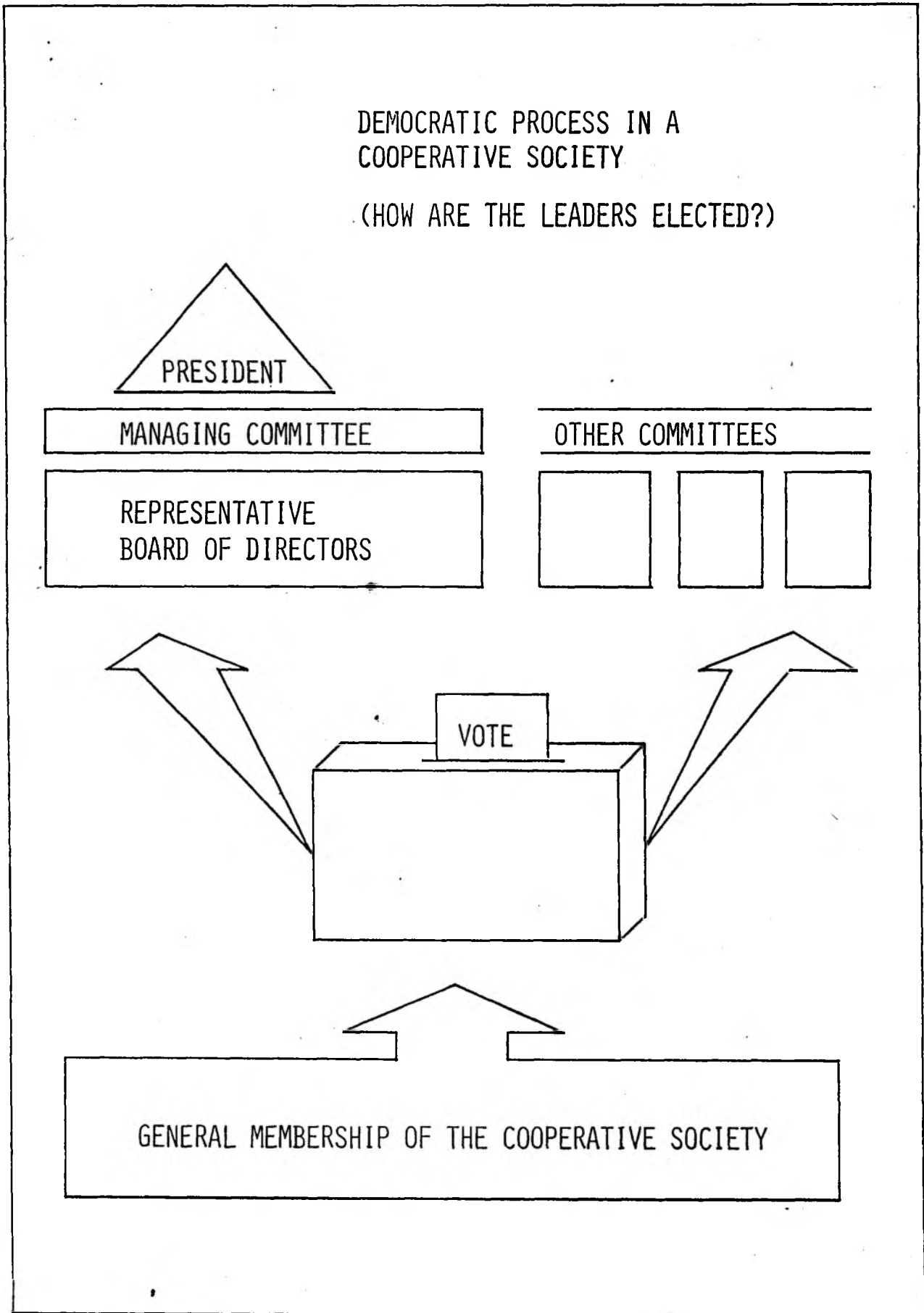
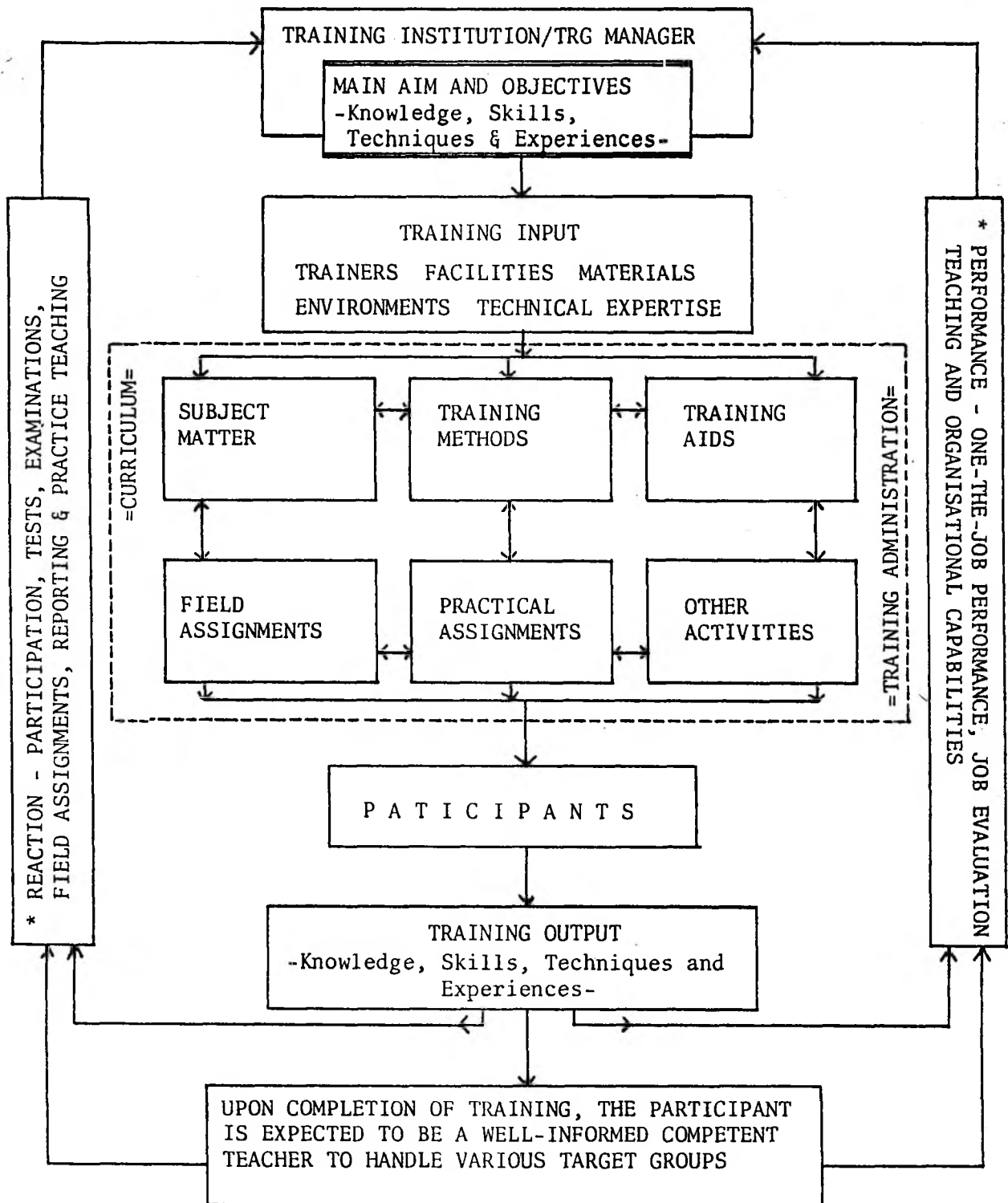


FIGURE LIX

ORGANISATIONAL CHART - AN EXAMPLE
ORGANISATION OF A TRAINING PROGRAMME



*Helps in future planning and further development of the participant and other training programmes for trainers.

FIGURE LX

FLOW CHART - AN EXAMPLE

SHOWING THE FLOW OF FINANCES
AND PROVISION OF SERVICES TO MEMBERS

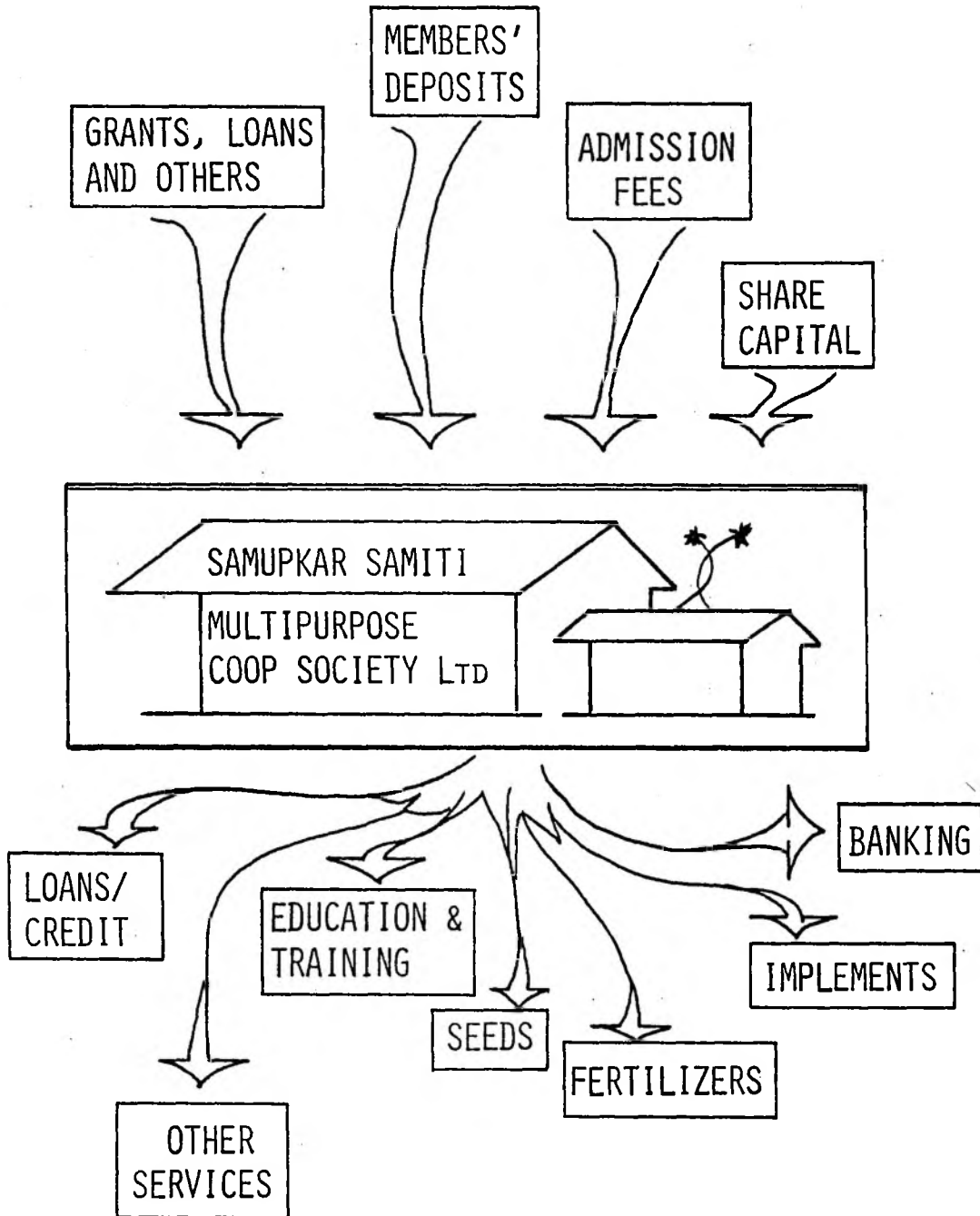
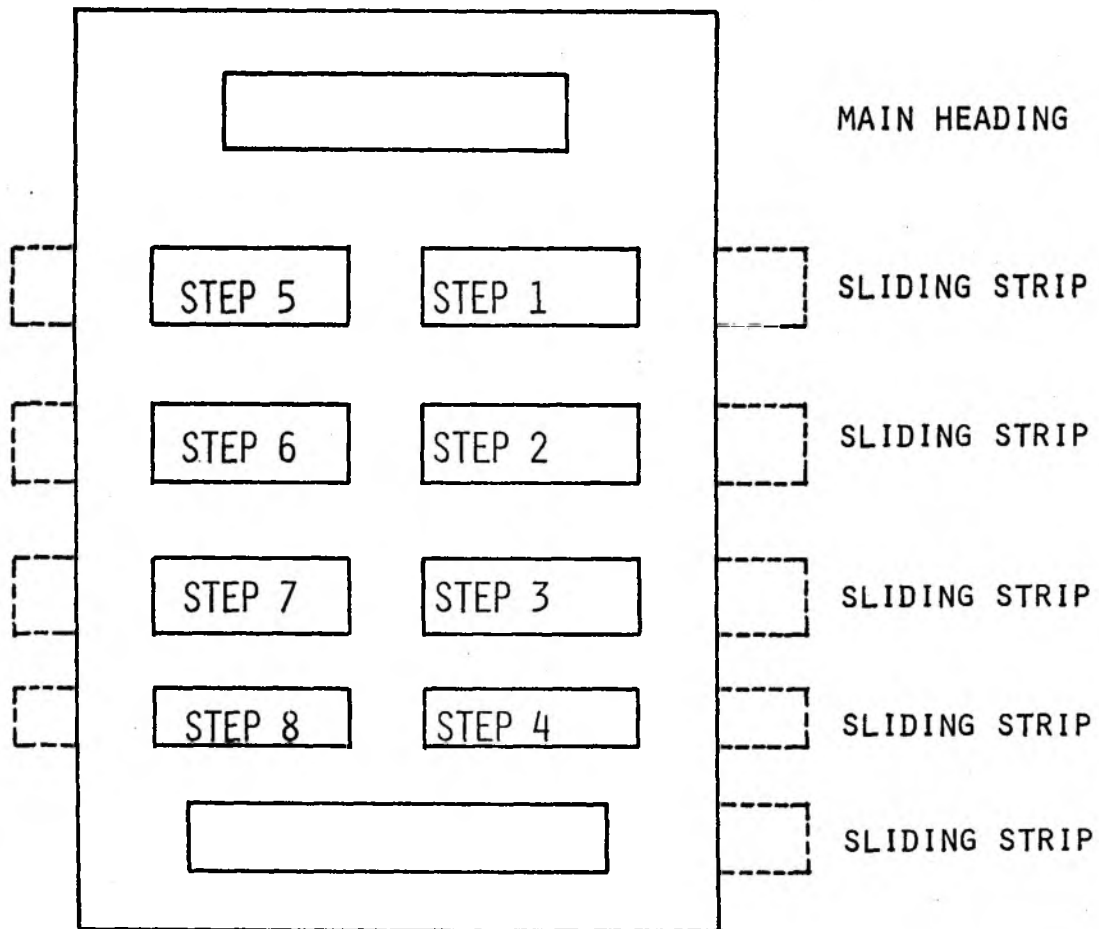


CHART WITH WINDOWS AND STRIPS



This could be a very good exercise-oriented training aid. Steps to be followed in a certain process can be explained and repeated by making use of the sliding strips - both right side as well as on the left side. On a thick quality paper sheet some windows can be cut and then longer strips can be prepared with bold captions of the steps to be discussed. One by one these strips could be inserted under the windows from behind the main sheet and removed.

In the preparation of this simple and effective training aid, the material needed could be: a good quality thick paper sheet (white or coloured), adhesive tape, paper knife, ordinary pencil and two or three good markers of dark colour with broad tip.

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

Features of Wallcharts

14 Some of the features of wallcharts are:

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 than 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

15 These can be grouped under the following broad headings:

- flow charts;
- story-telling charts;
- factual charts;
- comparative charts.

Presentation Techniques

16 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 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

17 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 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.

Posters

18 A poster is a pictorial device that is generally symbolic in nature. It is a bold design, with colour and message, that attracts attention and communicates just one fact, idea or image rapidly and clearly. A poster is a basic graphic interpretation with the greater possible impact. Because of its dramatic and impressive presentation, it holds the eye regardless of the message or pictorial content. In other words 'a poster is a simple means of communication of ideas, information, product and knowledge which could be displayed in public places. It is a large-size piece of paper which contains few and bold words and some simple illustration to support the message.'

19 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.

20 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.

21 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.

22 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

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

- Posters must make a positive approach;
- The content of a poster must be limited. It must achieve a lot in short time. One point only and that too should be clearly made;
- The message may be conveyed in bold letters. With an illustration to reinforce and make the idea memorable, especially for illiterates or neoliterates;
- A short catchy phrase may help. Use may be made of alliteration or rhyme;
- Message and illustration must be clear enough to be read at the required distance: style and size of both lettering and illustration are important.

Making Posters and Charts

24 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-tipped 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

25 The paste-up method is a simple way of producing a wallchart or a poster. Pictures and illustrations cut from magazines and old posters could be used for this purpose. A rough layout has to be prepared in advance and then transfer the scheme on to a large-size poster paper. The pictures and illustrations should be fixed with the glue and then the edges should be touched up with crayons or poster colour. Rubber or latex-based adhesives are clear, clean and quick in use and any surplus adhesive should be easily rubbed out. Charts and posters made in this way should never be rolled as the illustrations may peel off. These should be carried and stored flat.

Graphs

26 A graph is a representation of quantitative data that presents information quickly and effectively. It shows comparisons and relation-

ships of masses of statistical data, clearly and interestingly. Graphs are of many types but basically these have three forms: bar graph, line graph and circular graph.

27 In the preparation of graphs, we generally use graph paper, or squares drawn on a large paper. The figures to be presented are collected first and then transformed into units and durations. Some examples are given in Figures LXII - LXV.

Layout Technique

28 All graphic material has to be presented in such a way that the space on paper is fully and properly used, proper colour scheme is applied, meaningful, strong and clear lettering is done and the overall impression is pleasing and attractive. Some examples of layout have been given in Figures LXVI - LXIX.

29 Some layouts are formal while others are informal. Formal layout is strict, rigid and cold, while the informal layout is personal, warm and appealing. Informal layout depends more on the style of the designer himself and also on the type and quality of the message. Informal layout is on the increase these days.

30 While planning a layout, work to a scheme. The principle of A.C.T. should be kept in mind:

A = AIM Determine the concepts and ideas to be taught;

C = CHOICE Select the necessary material; and

T = TRIAL Sketch or arrange a trial layout.

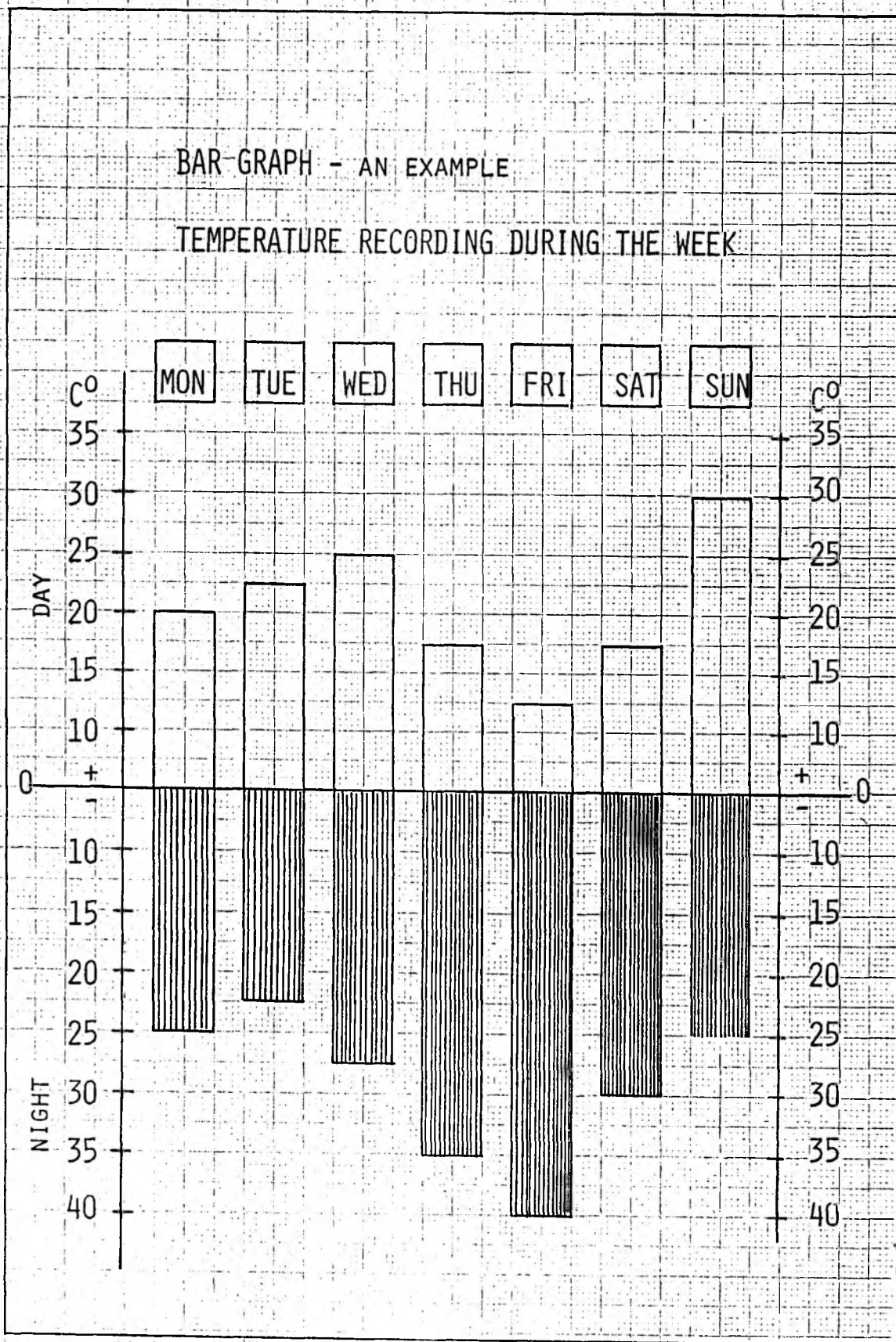
31 Items which are related must be shown to be related. Associations may be indicated by grouping.

- 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

32 In the preparation of visual aids, a proper combination of colours is important. Colours, if properly used, bring life to the aid and the message. Colours help in attracting attention. Colours appeal to the senses more than the text. Colours should be used in contrast and light colours should not be applied to light background. Colours are meant to emphasise and to highlight a certain point in the message. 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.

FIGURE LXII



BAR GRAPH - AN EXAMPLE

BULK OF GOODS HANDLED BY THE
REGIONAL COOPERATIVE WAREHOUSE : 1973-1981

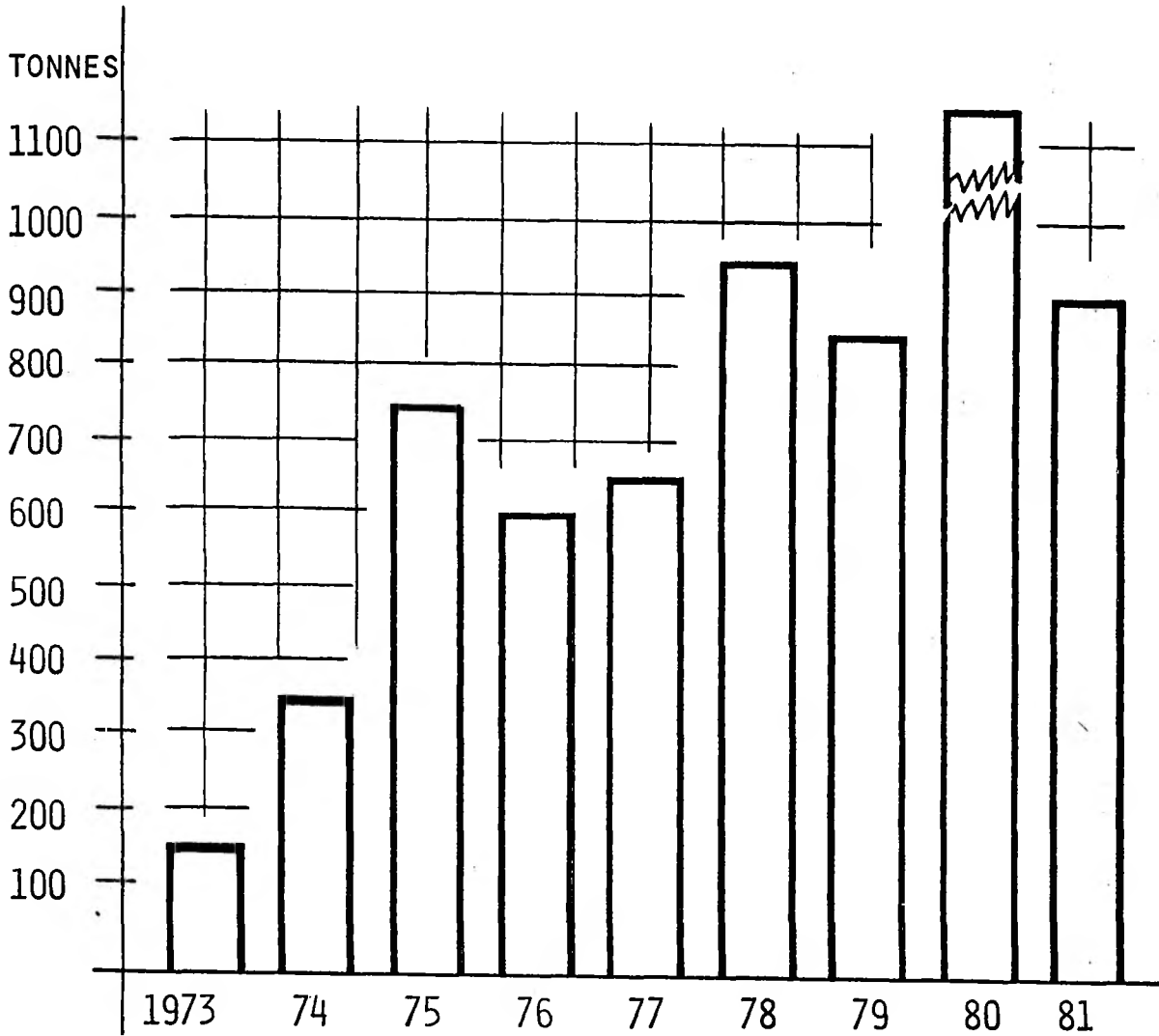


FIGURE LXIV

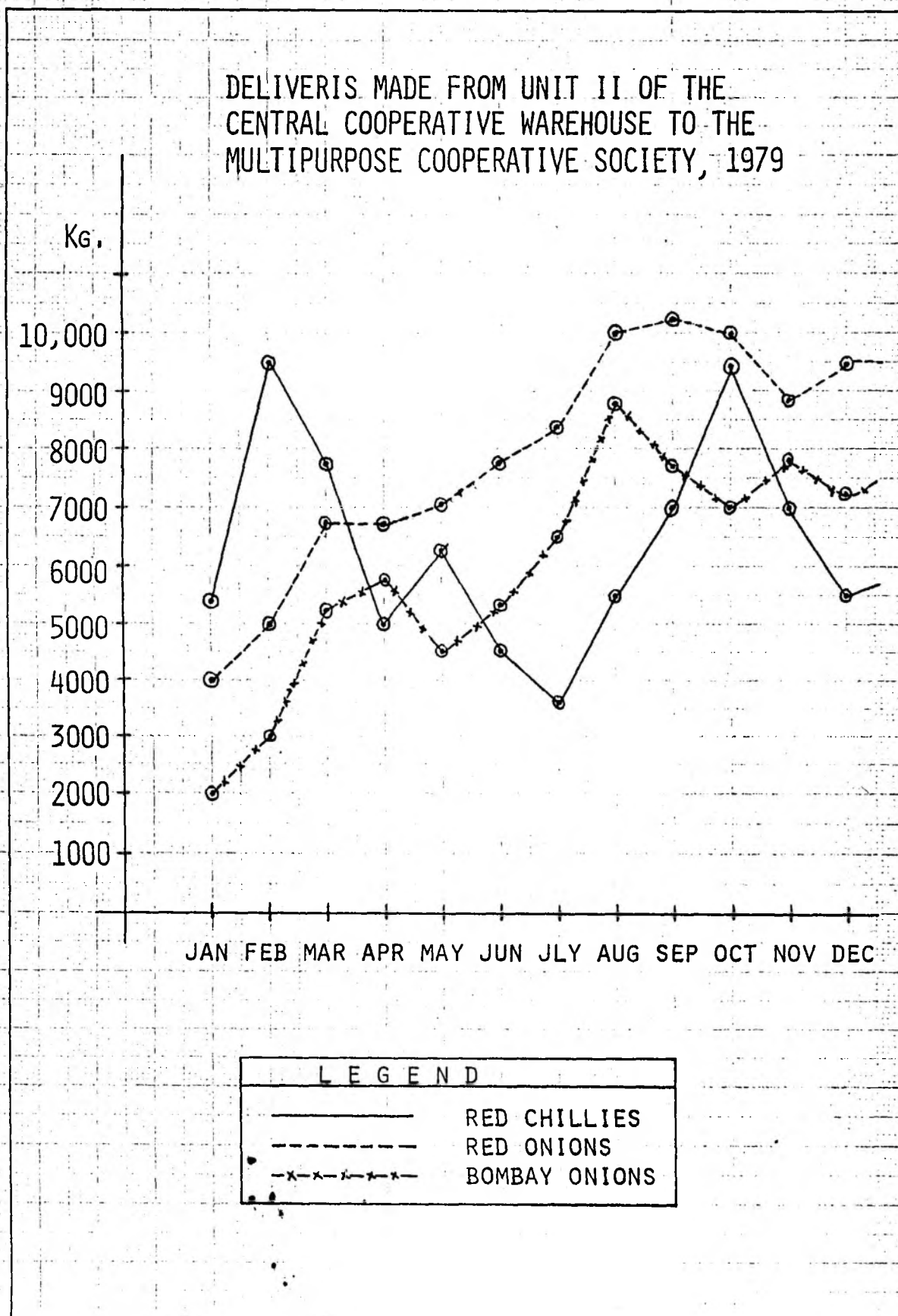
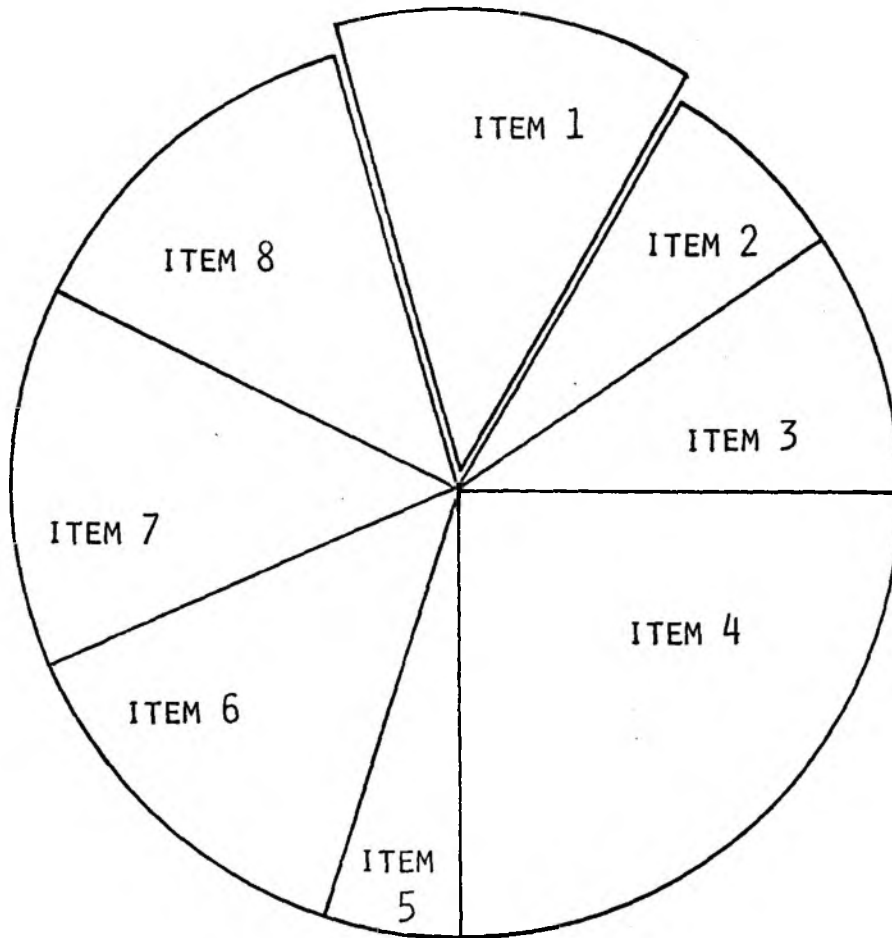


FIGURE LXV

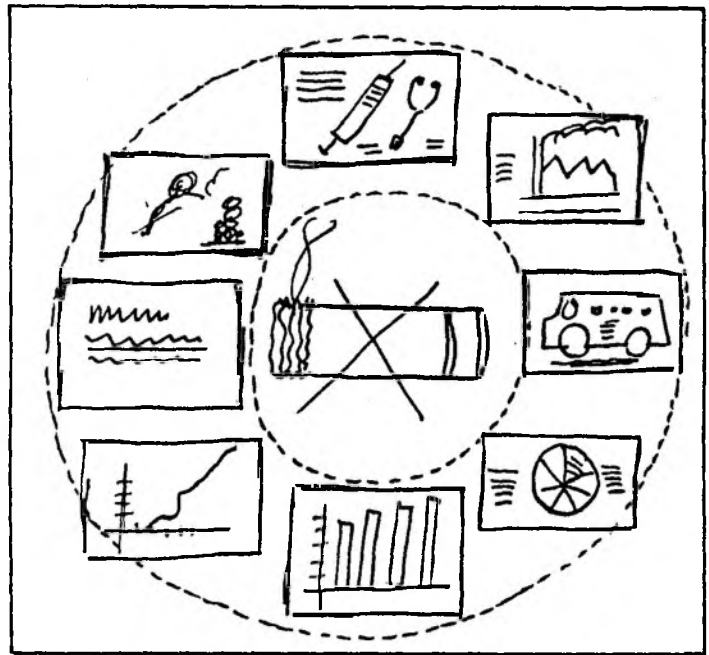
CIRCULAR GRAPH (FACTUAL GRAPH/PIE GRAPH)

SHOWING DISTRIBUTION/ALLOCATION OF
MONEY/DISTRIBUTION OF PROFITS ETC.

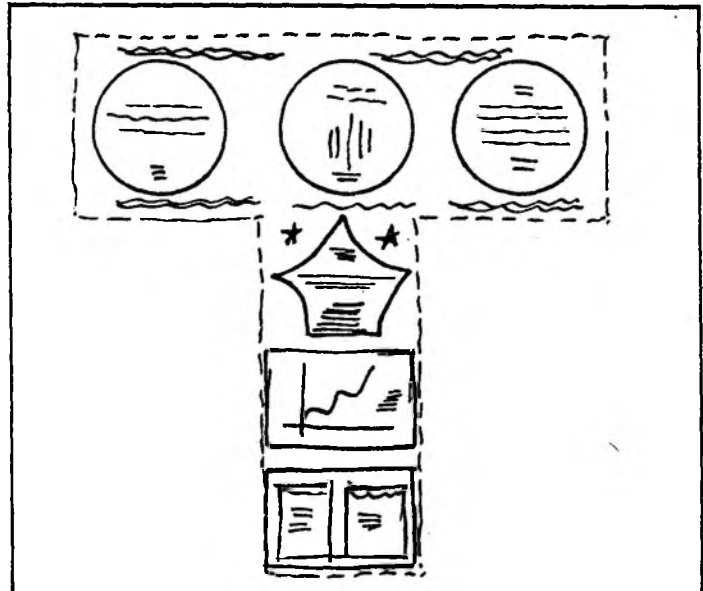


THE FULL CIRCLE REPRESENTS 100 OR THE ENTIRE
AMOUNT. ITEMS ARE THE ALLOCATIONS/DISTRIBUTION.

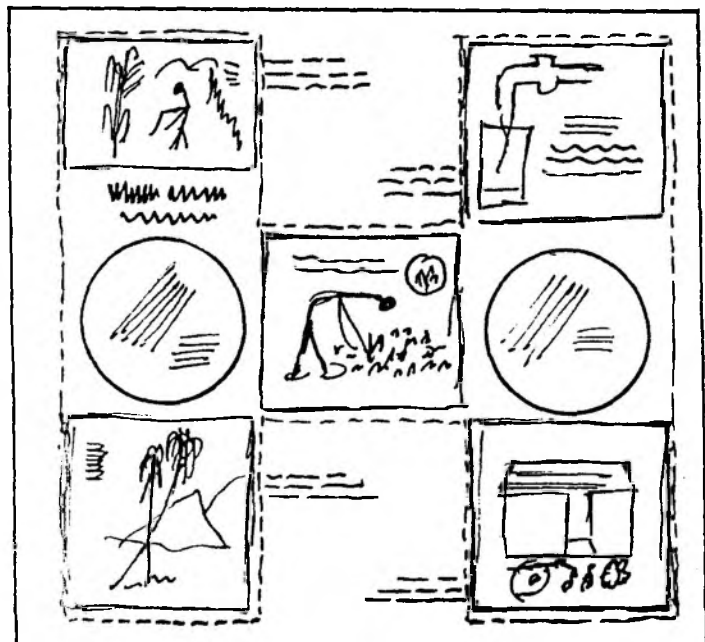
"O" LAYOUT



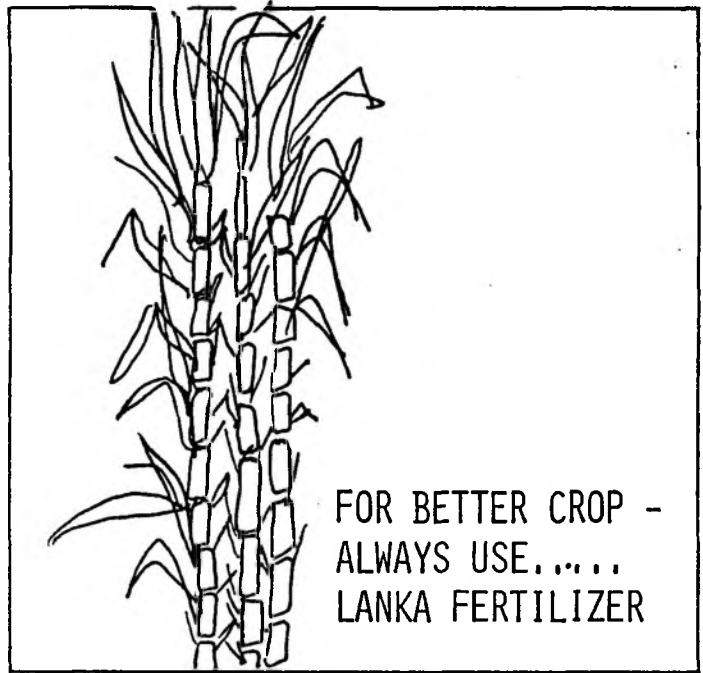
"T" LAYOUT



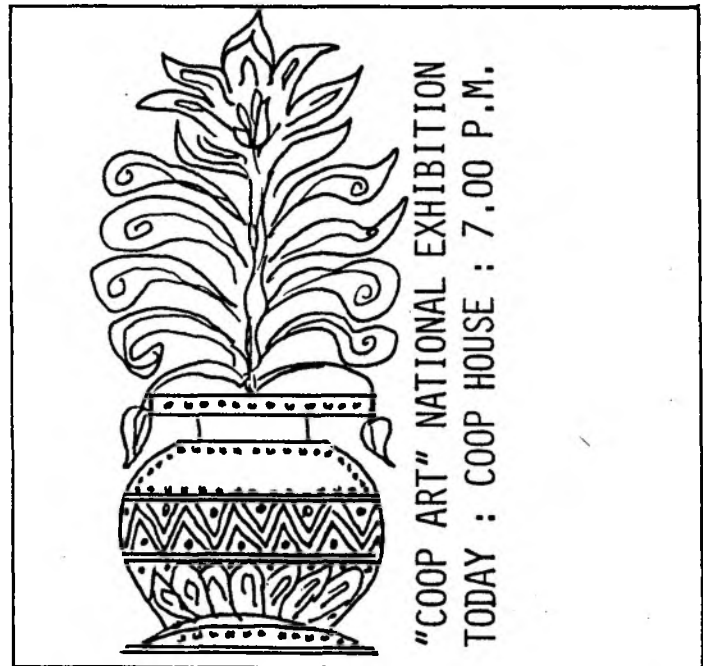
"H" LAYOUT



"L" LAYOUT



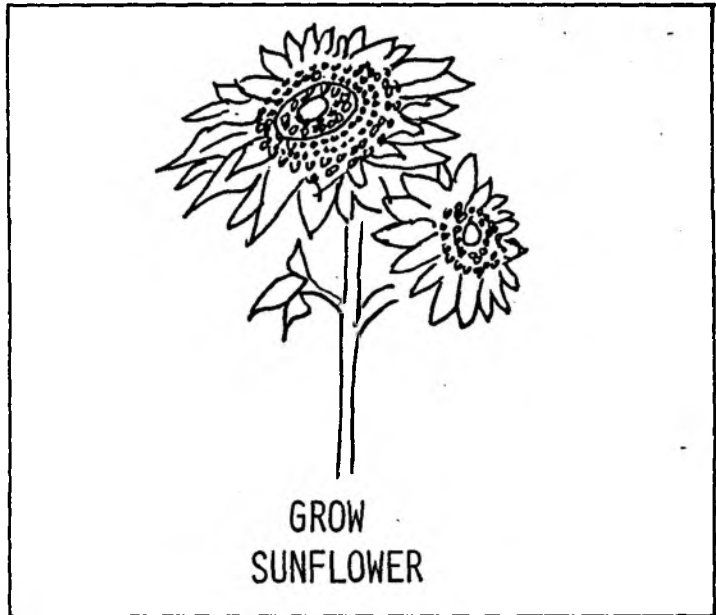
"I" LAYOUT



"Z" LAYOUT



"T" LAYOUT



"S" LAYOUT



FORMAL LAYOUT

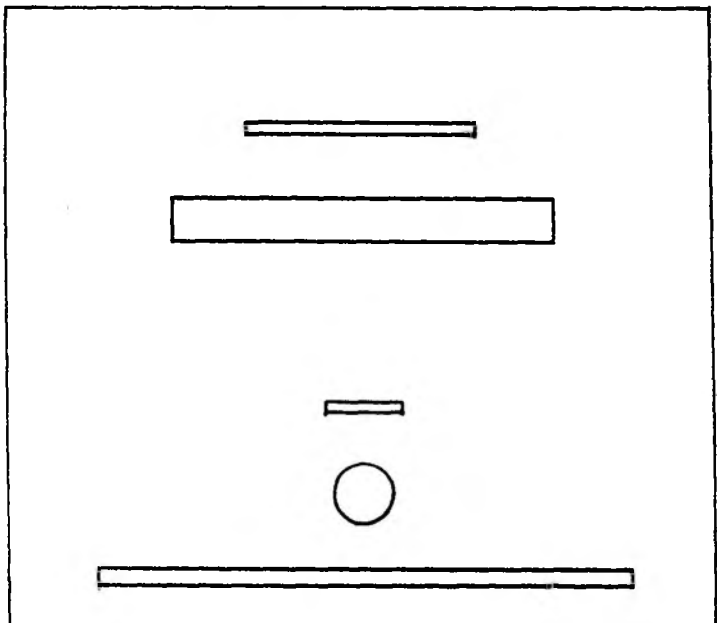
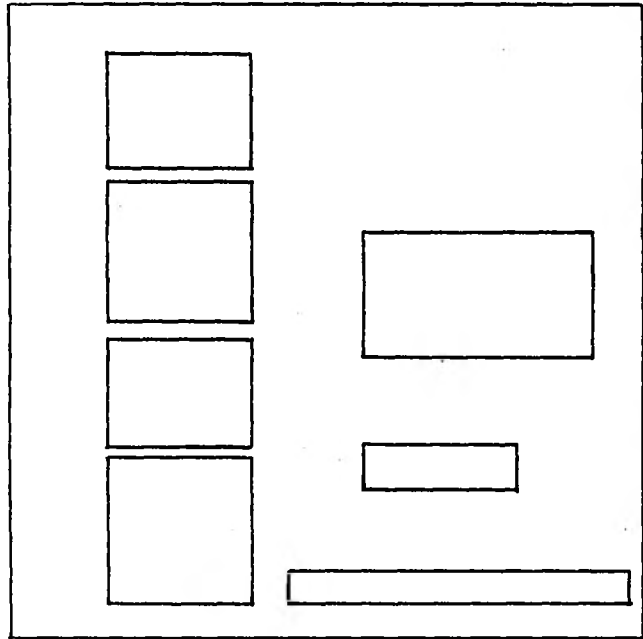
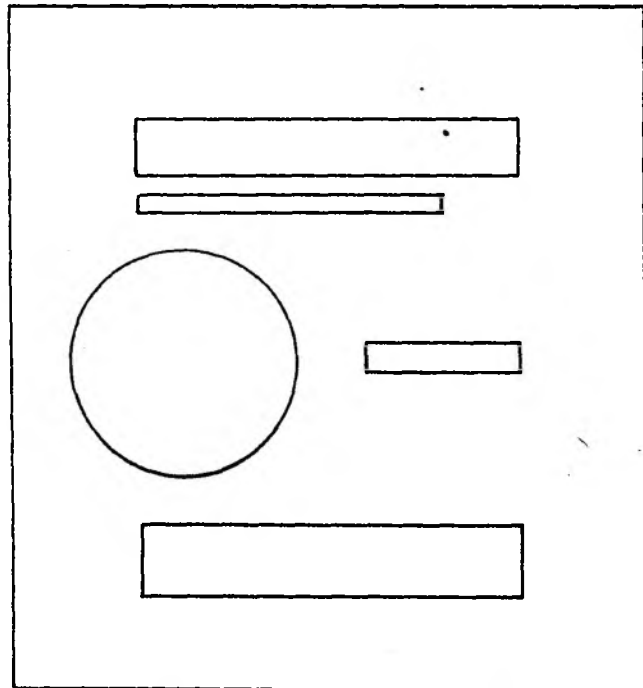


FIGURE LXIX

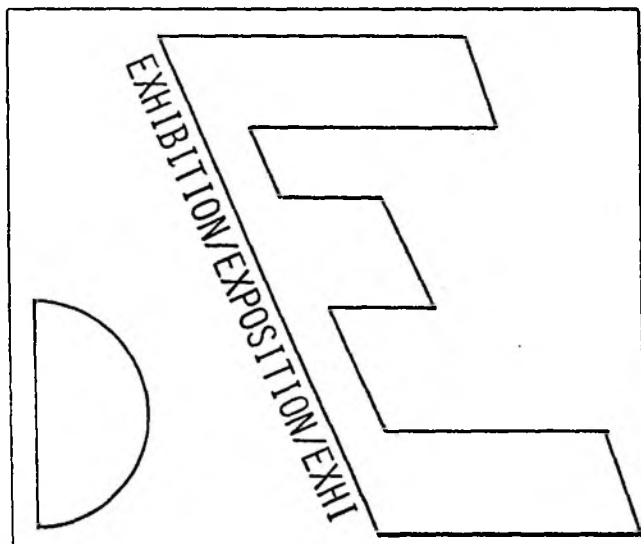
INFORMAL LAYOUT



INFORMAL LAYOUT



INFORMAL LAYOUT



33 Colour has irresistible charm and universal appeal. It has a great carrying power and an emotional impact. Colour is an important element of the aid as it heightens its effectiveness. Colour facilitates the grasp of distinction in content, emphasises the basic points and creates vividness. It sometimes reconstructs reality and brings the graphic aid nearer to a three-dimensional one.

34 Use of too many colours in one visual causes a mental strain. A few colours are enough to highlight points of distinction. Use additional colours only if they contribute effectively to the learning process.

35 In order to achieve a proper balance and harmony in using colours, efforts should be made to produce as much of a contrast as possible. Figure LXX gives an idea how colours could be merged by using the pure colours and their tones and effects.

Materials and Instruments Needed to Produce Graphic Aids

36 For the production and development of effective graphic aids the producer, or the teacher, should have access to some of the basic materials and instruments. These could be:

- Drawing Board and accessories: Good quality and sufficiently large-size drawing board with T-square is necessary to produce good graphic material. In addition to the drawing board these instruments should also be available: triangle, foot-ruler, protractor, compass, thumb-tacks, a pair of scissors, paper knife, used blades, etc.
- Paper and Pencils: Chart paper, card paper of light shade, poster papers, brown paper, heavy drawing sheets, mount boards, ordinary pencils of good quality e.g., H, 2H, 4H, 6H etc., pencil sharpeners, pencil erasers, inks, Indian ink, quick-drying inks, water-proof inks, water-soluble paints, poster paints, various kinds of brushes for painting and touch-up work.
- Lettering pens, stencils etc.: Lettering pens with metal nibs, felt-tipped pens, letter stencils, cut-letters, letraset sheets, lettering guides etc.
- Drawing Instruments: These include ruling pen, jointed compass, dividers, bowpen, various kinds of nibs.
- Artist's table: A good variety of a professional table, if possible, otherwise an ordinary even-surface top table.
- Light table: For copying work.

Resources Book

37 Teachers who are involved in production of training material often do look for examples. The teacher could develop a few resources notebooks in which he could paste up some of the examples cut out from various illustrated newsmagazines and newspapers. The idea is just to

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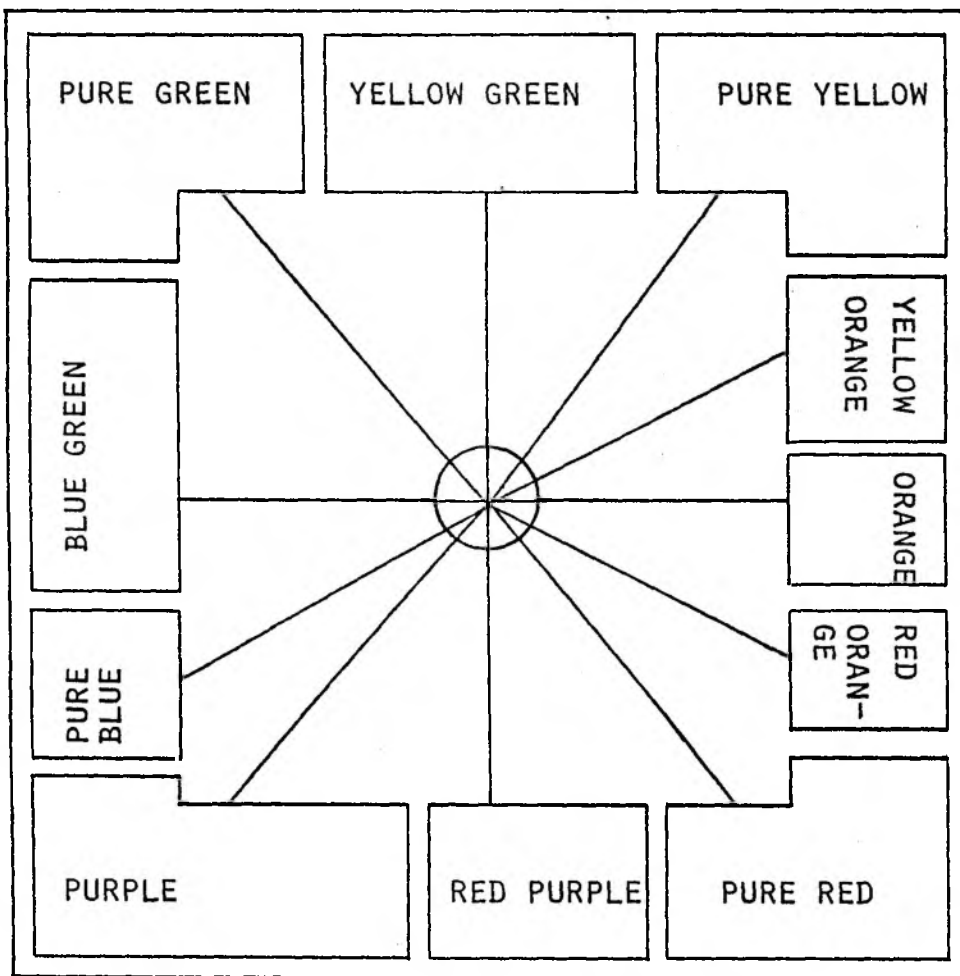
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FIGURE LXX

USE OF COLOURS IN GRAPHICS



There is magic in the use of colours. People make use of 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....**

cut out illustrations, photographs, line work, simple pictures, drawings from newspapers and magazines and stick them up in this resources book, which could be consulted at the time of planning of a graphic aid. Some examples could be traced on the tracing paper and these tracings could be collected in the resources book or in a special file. These always come handy at the time of need.

38 The teacher could also develop a small resources packet in his house or in his office, in which he should keep all the pamphlets, handouts, notices for future use and reference. Picture post cards also are very useful to get ideas.

Evaluation of the Visual Aid

39 In order to derive the maximum advantage out of the aids prepared, it is necessary to put these to a planned use. It would be a good idea to put your training aid to some kind of a test in order to determine their suitability, relevancy and effectiveness. For this purpose a proforma could be devised which should include some of the following points:

- Does it contain authentic information;
- Does it clarify the concept, idea or process;
- Does it conform to the level of comprehension of your audience;
- Does it develop critical thinking;
- Does it justify the amount of time and money involved;
- Does it encourage participation;
- Is it qualitatively sound;
- Does it accompany any notes or guide;
- Can it be multiplied;
- What else could be included;
- What could be removed;
- Does it need any adaptation.

40 The results of such an evaluation would help the teacher to improve his training aids, his training methods and his total approach to his audience.

Conclusion

41 Graphics are instructional materials that visualise and simplify ideas and facts. There are various kinds of graphic aids e.g., charts, graphs, posters etc. These are simple to produce. These produce very good results if these are properly produced and a proper use of illustrations and text is made. In the production of simple graphic aids very simple equipment and material is needed. The expenses are not too high. They tend to be more effective than the sophisticated aids which need electricity and all sorts of technicalities and precautions and advance preparations. Graphic aids are easily adaptable and they do not present any serious problem in transportation from one

place to another. In the production of graphic aids special care must be taken on the selection of illustrations, phrases and words and colours. The basic principle is to keep the graphic aid as simple as possible. Avoid using too many colours.

42 In order to facilitate the work of the teacher in the production of graphic material, resources books and resources files or packets should be maintained. The producer should also have the facility of some good equipment and instruments and a good supply of expendable material like paper, inks etc. The teacher should be able to evaluate his training aids and for this purpose he should device some proforma and study the results carefully.

Introduction

O1 The role of graphic aids and projected aids in cooperative education and training cannot be overemphasised. Graphic and projected aids, or more 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 work, community development work, extension activities, adult education etc. is further highlighted when the teacher or the field educator has to encounter a heterogeneous group or a group which is not properly educated. In such situations, the teacher has to rely on some simple graphic sketches and illustrations. These illustrations may seem to be difficult to be drawn in the initial stages, but after some general guidance and practice, one develops confidence.

Every Individual is an Artist

O2 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 pictures, sketch some illustrations or produce some fine characters. Some people can write beautiful letters (A, B, C, D, X, Y, Z etc) but they may not be able to draw some figures - human figures or other characters. 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 - letters and illustrations - and then make him design good posters, charts or some pamphlets etc.

O3 We do not stress on giving a long-term training course in drawing, illustrations, human figures or other technical matters. That is not within the scope of our work. We do not have the time and resources to offer such training programmes to our cooperative trainers and field educators. We can give them some general guidance, ideas and support 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

O4 By visualisation we mean to produce some visual symbols based on the oral or written information or 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 only one symbol - a photograph, a picture or a simple illustration!

05 Then, what the picture should be like? Should it be a detailed and complicated one? No... We speak here of simple illustrations for educational purposes and these should be kept as simple as possible. Human figures 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.

06 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...?

07 Small illustrations mean so many things. The examples given here (Figure LXXI - LXXXIII) 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 machines and materials for this work. 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.

08 Do not, however, gather the impression that this material is only to keep you busy. It is useful professionally. As part of the training programmes you will be exposed to several situations where you will have to construct some visual aids and use them. You must develop the necessary skills and confidence. This material will give you that confidence and understanding. So have a careful look at the following pages and make use of them.

FIGURE LXXI

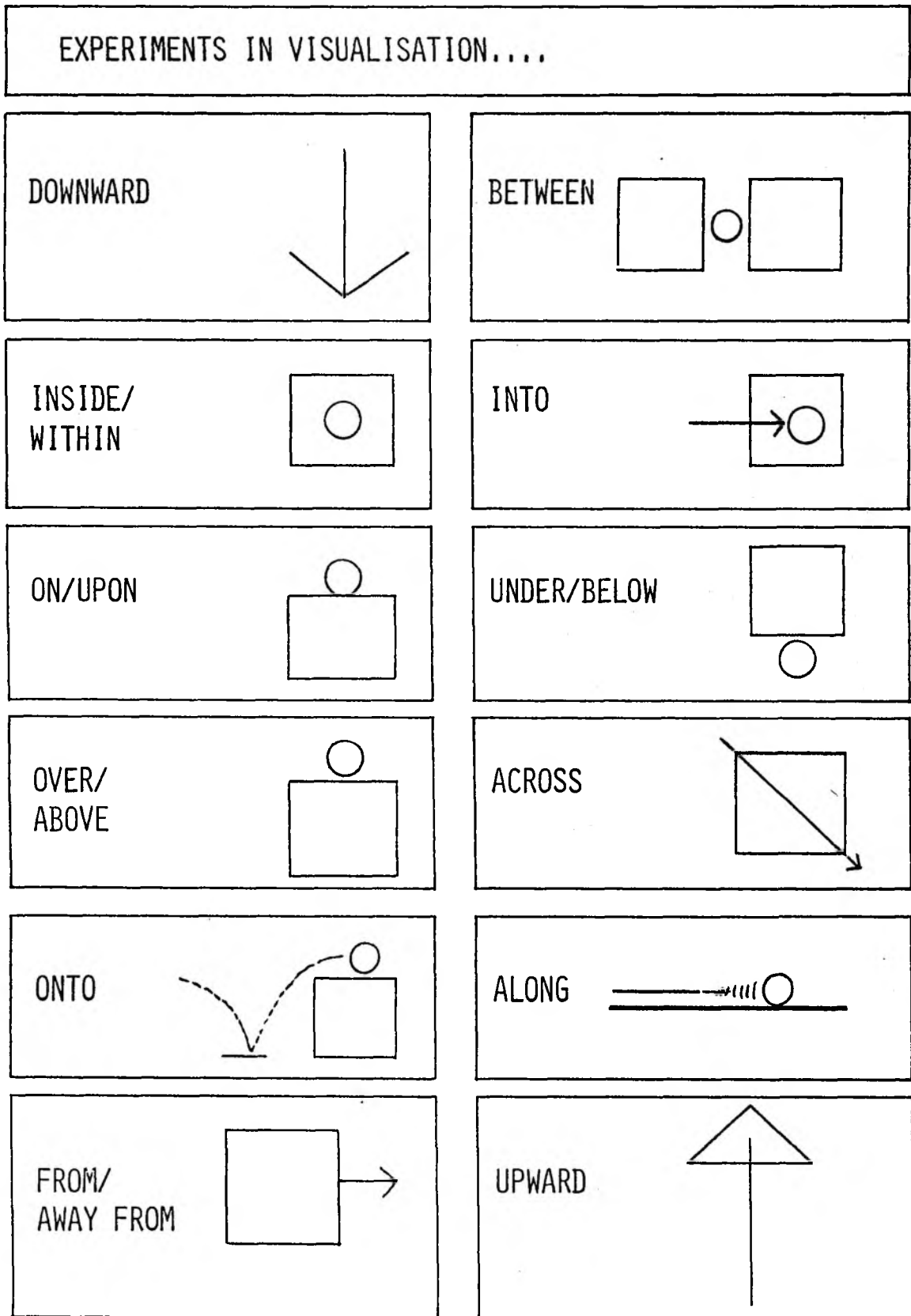
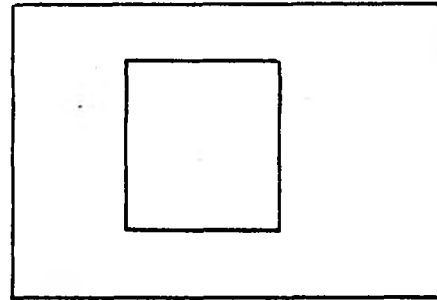
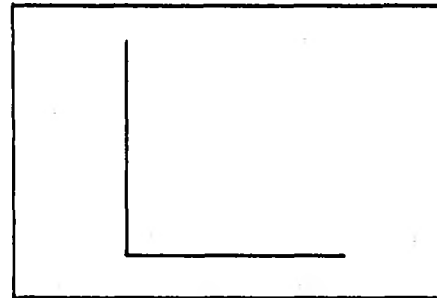


FIGURE LXXII

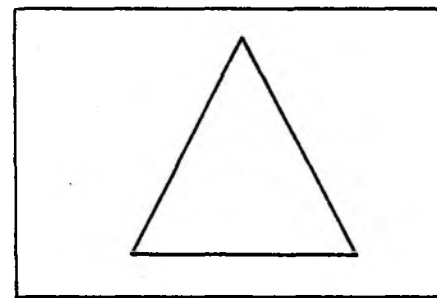
SQUARE FORM
THIS SHOWS THE EQUALITY OF INTEREST, SENSE OF CONFORMITY



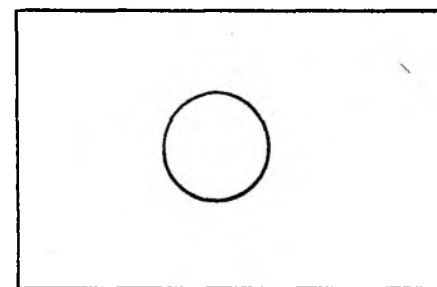
L SHAPE
THIS MEANS OPPOSITION OF INTERESTS, GURU STANDING AND THE STUDENT TOUCHING THE FEET OF THE GURU



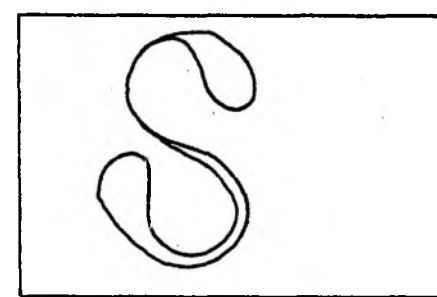
TRIANGLE SHAPE
MEANS UNITY OF INTERESTS



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.

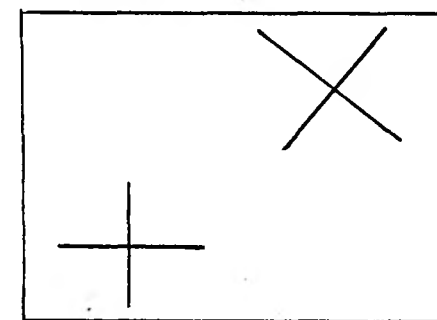
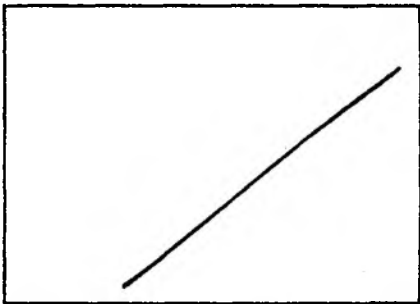


FIGURE LXXIII

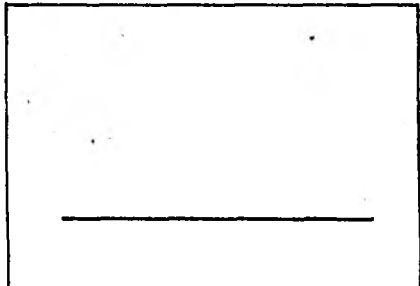
STRAIGHTLINES
THEY INDICATE DIRECTNESS,
RIGIDITY, FIRMNESS



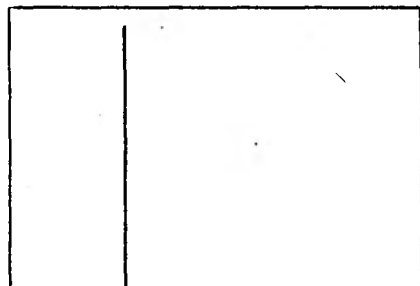
CURVED LINES
REPRESENT GRACE, BEAUTY,
FAMINITY, SOFTNESS, SMOOTHNESS,
TENDERNESS



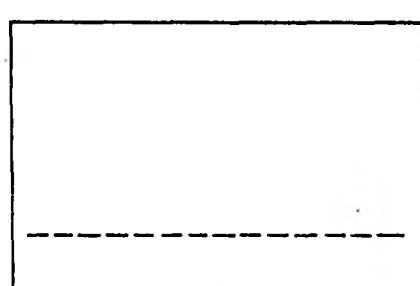
HORIZONTAL LINES
INDICATE REST, REPOSE,
LAZINESS, INFIRMITY



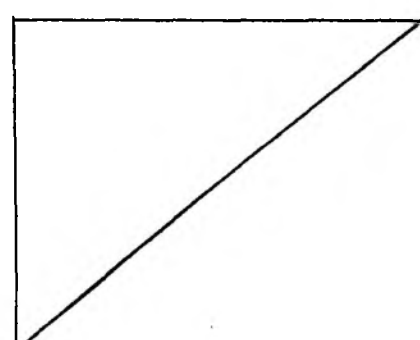
VERTICAL LINES
INDICATE ASPIRATION, DETERMI-
NATION, CHALLENGE, CONFIDENCE,
MANHOOD, HIGH THINKING



BROKEN LINES
INDICATE INDICISION, WEAKNESS,
FICKLE-MINDEDNESS, TREND
BREAKERS



DIAGONAL LINES
REPRESENT FORCE, ACTION,
ADVANCEMENT, PROGRESS

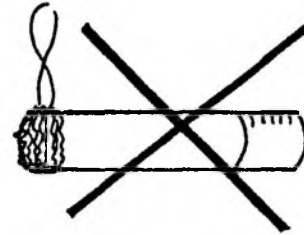


BURNING LAMP

SYMBOL OF EDUCATION, LEARNING,
WISDOM, ENLIGHTENMENT,
KNOWLEDGE



BURNING CIGARETTE WITH A CROSS
SYMBOL OF NO-SMOKING AREA



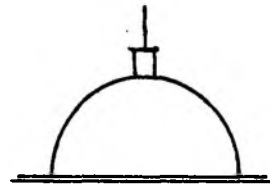
BURNING TORCH

SYMBOL OF SCHOOL, EDUCATIONAL
INSTITUTION, GUIDE, PATH
LEADERS



DAGABH

SYMBOL OF A BUDDHIST
TEMPLE, A PLACE OF
WORSHIP



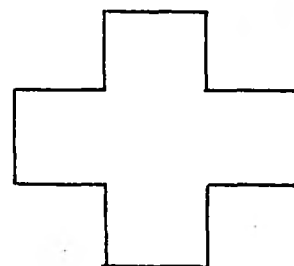
SKULL WITH CROSSED BONES

SYMBOL OF DANGER, DANGER
ZONES, WARNING, CAUTION



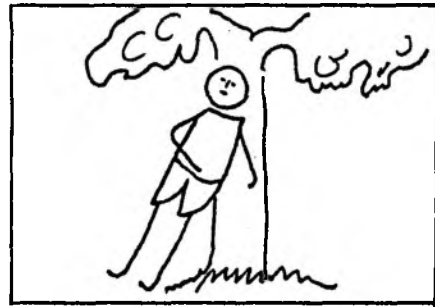
CROSS PAINTED IN RED

SYMBOL OF HOSPITAL, NURSING
HOME, DOCTOR'S CLINIC,
RED CROSS SOCIETY



AGAINST

A SLIGHTLY SLANTED HUMAN FIGURE
HERE GIVES THE IMPRESSION OF A
MAN STANDING AGAINST A TREE



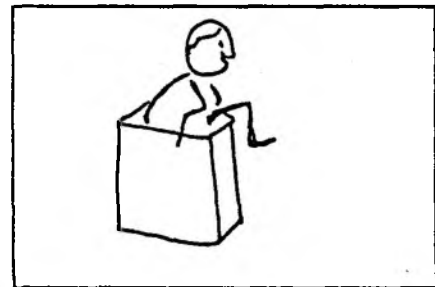
AROUND

A DOTTED CIRCLE AROUND THE TREE
WITH A HUMAN FIGURE RUNNING
NEARBY GIVES THE IMPRESSION
OF THE MAN RUNNING AROUND
THE TREE



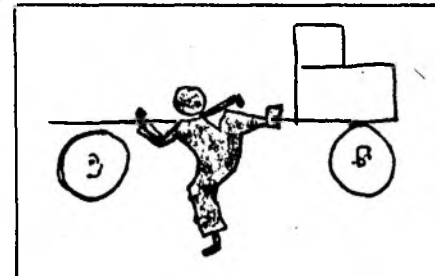
INSIDE

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



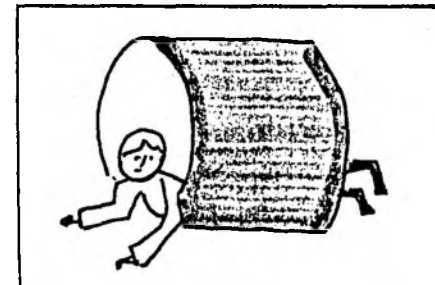
ONTO

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 IS TRYING TO GET OUT OF IT



JUMP

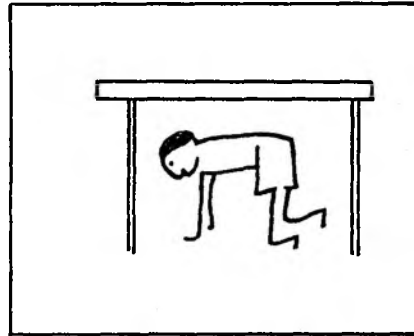
THE MAN IS JUMPING INTO THE
SWIMMING POOL FROM THE
SPRING BOARD



FIGURE LXXVI

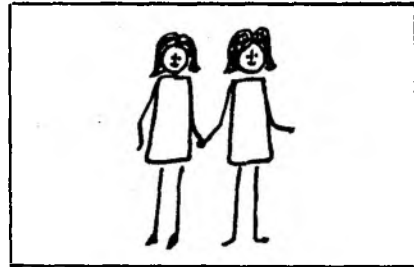
UNDER

THE BOY IS HIDING UNDER A TABLE. MAYBE SOMETHING IS LOST, OR EVEN SOME REPAIR IS BEING DONE UNDER THE TABLE



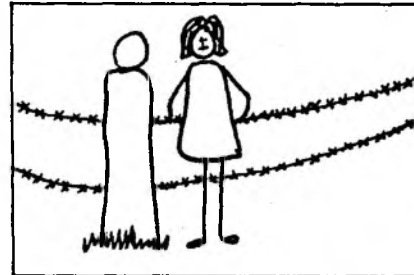
TOGETHER

TWO GIRLS TOGETHER, NOTICE THE DISTANCE BETWEEN THE TWO FIGURES WHICH BRINGS THEM TOGETHER



CLOSE BY

THE GIRL IS STANDING CLOSE TO THE FENCE TOWER, SHE IS NOT TOO FAR FROM THE FENCE



OVER TO YOU

THE BALL IS BOUNCED BACK TO ANOTHER PERSON. NOT MINE.. OVER TO YOU, FRIEND..



NEAR

THE BOY IS STANDING VERY NEAR TO THE TREE, HE IS JUST NEAR THE TREE - NOT TOO FAR AWAY AND NOT TOO CLOSE



OVER

THE BOY IS TRYING TO JUMP OVER THE FENCE.. A DIFFICULT TASK INDEED...

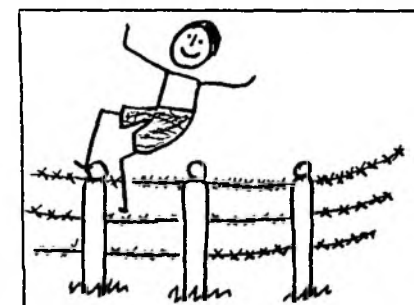
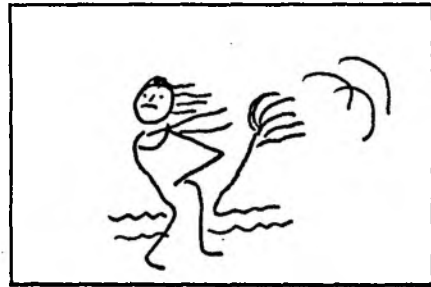


FIGURE LXXVII

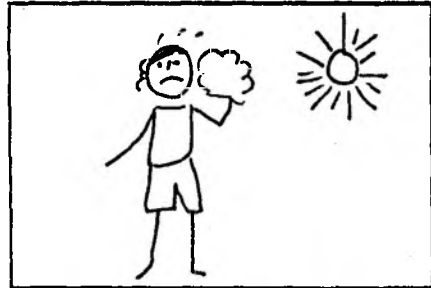
BLOWING

THE FLOW OF THE HAIR, DRESS AND THE PALM LEAVES GIVE THE IMPRESSION OF A STRONG WIND BLOWING



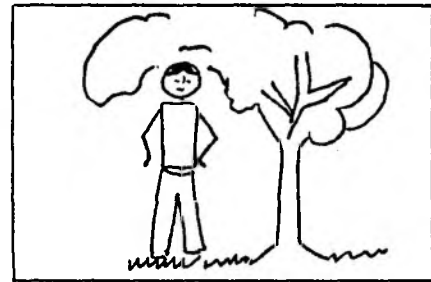
HOT

A PIECE OF CLOTH IN HAND AND THE RAYS OF THE SUN GIVE THE IMPRESSION OF IT BEING VERY HOT. APPARENTLY THE MAN IS PERSPIRING



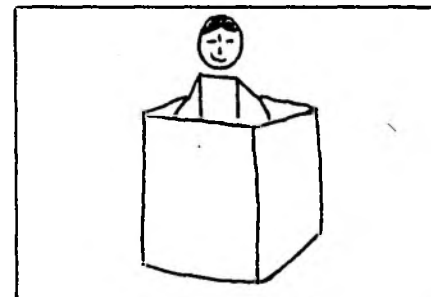
UNDER

THE MAN IS UNDER A SHADY TREE. NOTICE THE PLACEMENT OF THE MAN UNDER THE TREE WHICH PROVIDES THE IMPRESSION OF IT BEING FRESH AND COLD



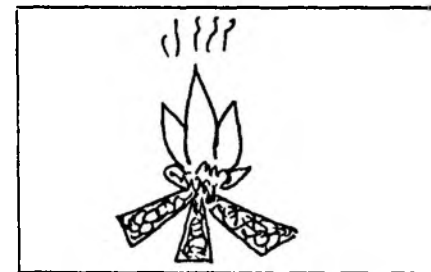
INSIDE

HERE THE MAN APPEARS TO BE RIGHT INSIDE THE BOX. HE SEEMS TO BE 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 AND THE WOMAN. NOTICE THE ANGLE OF THE STICK AND THE LINES GIVING THE IMPRESSION OF A FLOW...

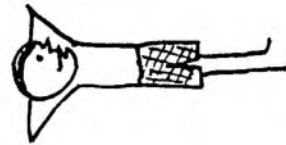


FIGURE LXXVIII

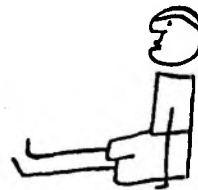
A SIMPLE HUMAN FIGURE -
PROBABLY STANDING
AND THINKING...



NOW LYING DOWN, PERHAPS
TAKING A NAP, WATCH OUT...
IT IS THE SAME FIGURE
AS IN THE ABOVE



NOW HE SITS UP



NOW HE SLEEPS - A SMALL BLANKET
HAS BEEN PULLED OVER HIS BODY,



GOING OUT FOR A LITTLE WALK -
OR GOING TO POST THE LETTER,
WATCH THE MOVEMENT IN HIS
HANDS AND LEGS...



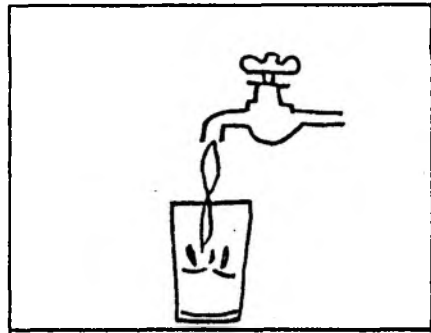
AND NOW IT IS THE PLAY TIME,
A SMART KICK AND THE BALL
GOES AWAY FROM HIM, THE
BALL IS GOING HIGH AND
SPINNING



FIGURE LXXIX

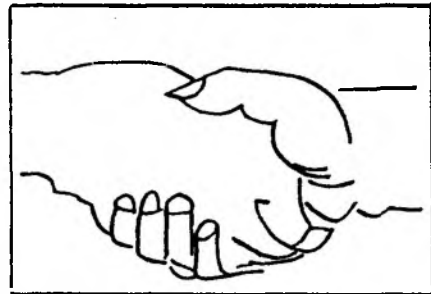
A VERY SIMPLE FIGURE TO DEMONSTRATE THE FLOW OF WATER FROM THE TAP TO THE GLASS.

INTERPRETATIONS CAN BE MANY.



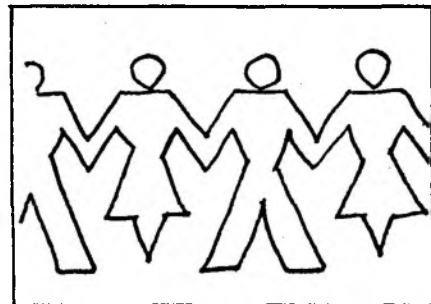
COOPERATION
BROTHERHOOD

A SYMBOL OF FRIENDSHIP,
UNDERSTANDING AND
COOPERATION



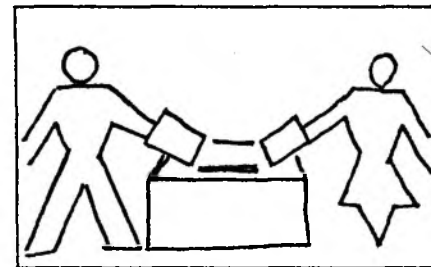
MEMBERSHIP UNITY

MEN AND WOMEN OF ANY CASTE,
CREED, RELIGION AND BELIEF
BECOME MEMBERS OF
COOPERATIVE SOCIETIES



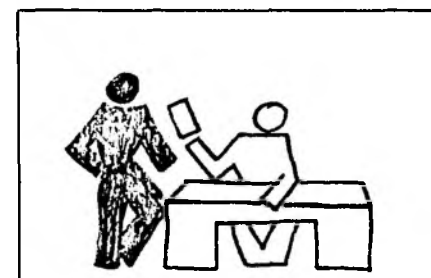
DEMOCRACY

MEMBERS ENJOY THE RIGHT TO
VOTE - EXERCISING THE
DEMOCRATIC CONTROL. THEY ELECT
THEIR OWN MANAGING COMMITTEES
AND OTHER BODIES



MANAGEMENT

THE MANAGER DISCUSSES A POINT
WITH HIS STAFF MEMBER



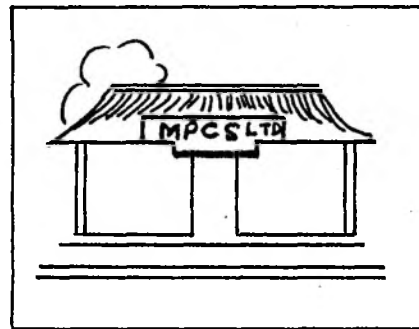
SALESMANSHIP/BUSINESS

THE PROCESS OF TRANSACTION
OF A BUSINESS - CONSUMER
STORE

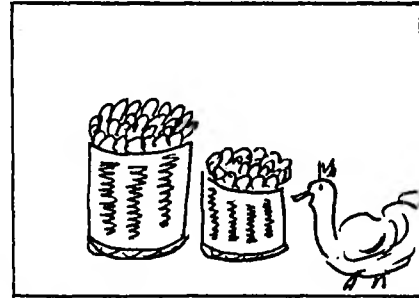


FIGURE LXXX

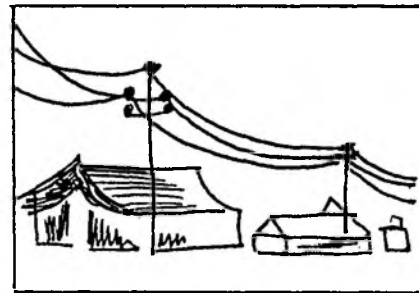
THIS IS HOW A SMALL COOPERATIVE SOCIETY LOOKS LIKE IN A RURAL AREA. IT REPRESENTS A BRANCH OF A MULTIPURPOSE COOPERATIVE SOCIETY.



THE CHICKEN AND THE EGGS, EGGS ARE ALREADY IN THE BASKET FOR TRANSPORTATION TO THE MARKET.



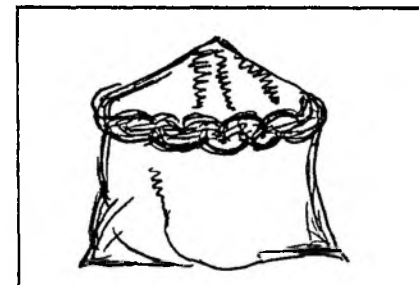
A RURAL SCENE, ELECTRIC WIRES DOMINATE THE HORIZON OF A RURAL SETTING, TAKE NOTE OF THE SIZE OF HOUSES AND THE DIMENSION OF THE WIRES.



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 - LABEL IT.



A BIG HEAP OF MONEY -
CURRENCY NOTES AND COINS,
ALSO A BAG FULL OF
SMALL CHANGE, REPRESENTS
MONEY - LOAN OR SAVINGS.



FIGURE LXXXI

PRODUCERS BRING THEIR PRODUCE TO THE COLLECTION CENTRE OF A COOPERATIVE SOCIETY, FROM HERE THE GOODS WILL GO TO THE MAIN SOCIETY FOR SALE



THE BYELAWS OF A COOPERATIVE SOCIETY, THE BOOK CAN BE INTERPRETED AS A LEDGER, RECORD BOOK, PASS BOOK, A GUIDE OR A MANUAL OF PROCEDURES



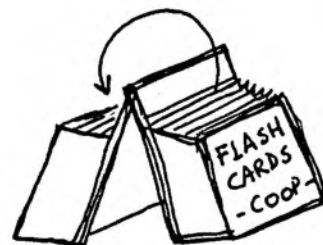
GUNNY BAGS FULL OF RICE READY FOR TRANSPORTATION, CONTENTS WILL BE ACCORDING TO THE LABEL THAT IS PUT ON THE BAGS



A CLUSTER OF SMALL HUTS IN A CENTRAL INDIAN VILLAGE, THESE 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.



TOGETHER WE PROSPER...
INTER-COOPERATIVE COOPERATION..
COOPERATIVES GET TOGETHER TO
PROVIDE STRENGTH TO THEMSELVES

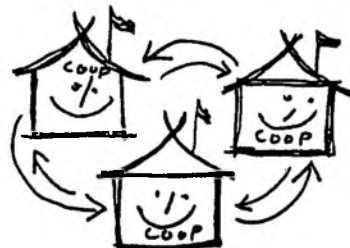
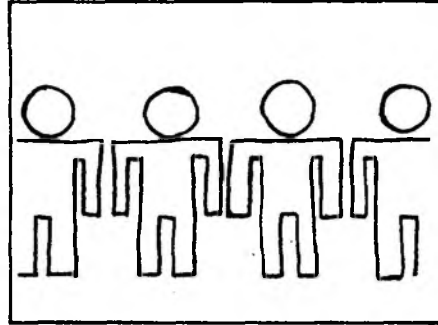
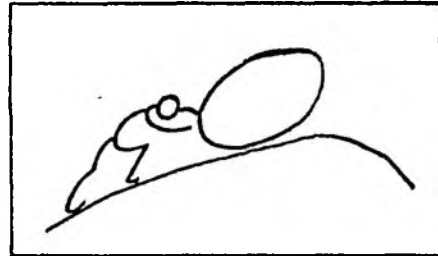


FIGURE LXXXII

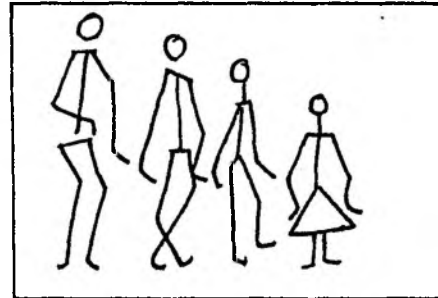
HUMAN FIGURES CAN ALSO
BE DRAWN IN THIS
SIMPLE MANNER. NO
DETAILS ARE INCLUDED



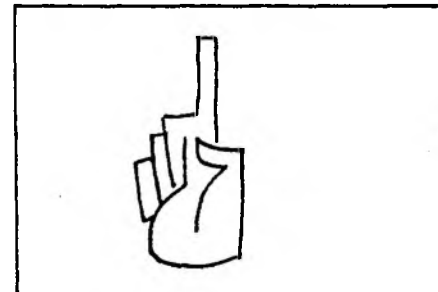
THE MAN IS TRYING TO PUSH
A STONE UPHILL, SURELY,
AN UPHILL TASK...



A FAMILY OF STICK FIGURES
THAT PROBABLY ESCAPED FROM
THE MATCHBOX - WATCH CAREFULLY
THE MATCH STICK AND TRY TO
BRING THEM TO LIFE - MATCHSTICK
FIGURES



POINT NUMBER ONE...
THE FIRST POINT IS...



POINT NUMBER THREE...
THE THIRD POINT IS...





















POINT NUMBER FOUR...
THE FOURTH POINT IS...



INTERNATIONAL DEVELOPMENT COMMUNICATION LOGOS

(Reproduced from DEVELOPMENT COMMUNICATION REPORT No.34)

FIGURE
LXXXIII

<p>AGRICULTURE</p> 	<p>INTERPERSONAL COMMUNICATION</p> 
<p>AUDIO-CASSETTE</p> 	<p>NEW TECHNOLOGIES</p> 
<p>CINEMA AND MOTION PICTURE</p> 	<p>NUTRITION</p> 
<p>EDUCATION AND HUMAN RESOURCES</p> 	<p>POPULATION & FAMILY PLANNING</p> 
<p>FILMSTRIPS AND 35MM</p> 	<p>PRINT MEDIA</p> 
<p>FOLK MEDIA</p> 	<p>RADIO</p> 
<p>HEALTH</p> 	<p>SETELLITE</p> 
<p>INFORMATION</p> 	<p>TV/VTR</p> 
<p>INTEGRATED DEVELOPMENT</p> 	<p>WOMEN IN DEVELOPMENT</p> 

Listed hereunder are some of the important publications which deal with training methods and training aids. It is strongly recommended that all training institutions should possess these publications. All field educators, cooperative teachers and communicators will derive a great benefit from these publications.

AUDIO-VISUAL AIDS FOR COOPERATIVE EDUCATION AND TRAINING. Botham, CN, Published by the Food and Agriculture Organisation of the United Nations, Rome.

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

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

A-V INSTRUCTION TECHNOLOGY MEDIA AND METHODS. Brown, Lewis and Harclerod. Published by McGraw Hill, New York.

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

COMMUNICATION AND THE COOPERATIVE TEACHER. Daman Prakash. Published by the International Cooperative Alliance Regional Office for South-East Asia, New Delhi.

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

EFFECTIVE COMMUNICATION MADE SIMPLE. Eyre. Published by WH Allen and Company, 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.

GRAPHIC COMMUNICATION. Bowman. Published by John Wiley and Sons, NY.

GRAPHIC HANDBOOK. Ken Garland. Studio Vista, London.

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

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

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

LEARNING AND HUMAN ABILITIES : EDUCATIONAL PSYCHOLOGY. Klausmeier, Herbert, L. Published by Harper and Row, New York.

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

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

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

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

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

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 Regional Office for South-East Asia, New Delhi.

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

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

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, New York.

VISUAL AIDS : THEIR CONSTRUCTION AND USE. Weaver, Gilbert and Bollinger. Published by D van Nostrand Company, New York.

WORKING WITH VILLAGERS : MEDIA RESOURCE BOOK. Published by The American Home Economics Association International Family Planning Project, Washington D.C.

In addition to the above, several pamphlets, brochures, and illustrated material on audio-visual aids and training methods are issued by several other organisations. Some of the more prominent are:

CEMAS - COOPERATIVE EDUCATION MATERIALS ADVISORY SERVICE, International Cooperative Alliance, London, New Delhi and Moshi.

BRITISH COUNCIL (Audio-Visual Aids Centre), London.

INTERNATIONAL CENTRE FOR ADVANCE TECHNICAL AND VOCATIONAL TRAINING. ILO, Turin.

MATCOM - MATERIAL AND TECHNIQUES FOR COOPERATIVE MANAGEMENT TRAINING. ILO, Vienna and Geneva.

Introduction

01 This handbook is essentially a training material. It is more as a guide to training managers and trainers. It is not rigid in character and the contents can be enlarged or reduced or re-arranged depending upon the situation. The handbook is general in character and a number of examples and illustrations have been taken from the day-to-day life and activities of the trainers and trainees. A majority of examples are, of course, from the cooperative scene although examples from agricultural extension, family welfare etc. have also been cited.

02 The handbook also provides basic resource material to the trainer to conduct a training course or training workshop for trainers. It is intended that cooperative training institutions/cooperative unions organise training programmes for their training staff/extension workers/field educators in the techniques of audio-visual aids production and application.

03 This handbook could serve as a relevant training material to conduct a 2-week workshop on "PRODUCTION AND USE OF BASIC VISUAL AIDS" for trainers who are to work in the field with cooperative societies within the cooperative member education and cooperative training activities.

Workshop on Visual Aids

04 The objectives of such a workshop could be as under:

- i to make an effective use of the existing teaching aids available at the district cooperative education centres;
- ii to develop and produce the basic teaching aids and to acquire the skills of producing and using them; and
- iii to understand the importance of using basic teaching aids.

Duration: 2 weeks (13 working days);

Participants: Approximately 15-20 persons;

Areas of study to be covered:

- Communication Process and Communication Media;
- Chalkboard utilisation and practice;
- Flannelgraph and practice;
- Flipboard and practice;
- Lettering techniques and practice;
- Drawing Simple Figures and practice; and
- Graphic aids and practice.

Time-table : A suggested time-table is attached.

Graphic Material: A list of material needed to conduct the workshop is given below:

- drawing boards with T-square (4);
- brown paper, large-size sheets, (50 sheets);
- mechanical newsprint, large size (100 sheets);
- ordinary pencils (25 pieces);
- pencil erasers (25);
- sharpeners (25);
- poster paper, different colour, (10 sheets);
- thick box board, large sheets, (20 sheets);
- scissors (4);
- paper knives (5);
- sandpaper of No.4 variety (20 sheets);
- gum, adhesive tubes (sufficient quantity);
- crayons and coloured chalks (4 packets each);
- poster colour - assorted (2 packets);
- brushes for poster colour (12);
- markers, felt pens, various colours (sufficient quantity);
- flannelcloth (4 pieces of 2 meters each);
- chalkboard (1);
- portable chalkboard (2);
- instrument box (5);
- ball of string (2 balls);
- blottingpaper (2 sheets);
- pins, clips, thumbtacks (sufficient quantity);
- foot rulers (25).

Placement of Graphic and other Material

05 Once all the above material is obtained, it should be kept in one separate room and one participant should be made responsible for its proper use. All participants should be requested to return the material and other instruments to the specified place and person every day before they go away from the classroom. One set of material could be presented to the participants at the end of the workshop so that they could continue to work on their visual aids.

Instructions for the Trainer

06 The trainer (workshop manager) should take note of the following points in the conduct of the workshop:

- While discussing a particular aid, he should not merely talk and lecture, but also demonstrate how the aid is constructed and how it should be presented. It should be a demonstration-oriented talk, and not a lecture.
- All goods, equipment and instruments needed for the workshop should be purchased sufficiently in advance and they should be available right in the first session of the workshop. It is not the right thing to say "Sorry, we do not have the sandpaper now..." While discussing flannelgraph, everything relating to that aid must be available for demonstration and for a better understanding;

SUGGESTED TIME-TABLE FOR AUDIO-VISUAL AIDS WORKSHOP

SESSION DAY	I	II	III	IV	V	VI
DAY 1 MON	Inauguration; Working Arrangements	COMMUNICATION PROCESS AND MEDIA - General introduction	COMMUNICATION PROCESS AND MEDIA - introduction	Group Discussions on COMMUNICATION PROCESS AND MEDIA : AND SUMMARISATION OF GROUP WORK		
DAY 2 TUE	CHALKBOARD -introduction	CHALKBOARD : PRACTICAL WORK AND PRACTICE SESSIONS	CHALKBOARD : PRACTICAL WORK AND PRACTICE SESSIONS	FLANNELGRAPH -introduction	DEMONSTRATION, METHODS AND PRACTICE SESSION	
DAY 3 WED	LETTERING -introduction	LETTERING : PRACTICE SESSION, DISCUSSIONS ON TECHNIQUES	LETTERING : PRACTICE SESSION, DISCUSSIONS ON TECHNIQUES	FLIP CHARTS -introduction	DEMONSTRATION, METHODS AND PRACTICE SESSION	
DAY 4 THU	DRAWING SIMPLE FIGURES - introduction	DRAWING SIMPLE FIGURES: PRACTICE SESSION AND DISCUSSIONS, IF ANY	DRAWING SIMPLE FIGURES: PRACTICE SESSION AND DISCUSSIONS, IF ANY	ASSIGNMENTS TO SIMPLE FIGURES	PARTICIPANTS ON DRAWING	
DAY 5 FRI	GRAPHIC AIDS: POSTERS/CHARTS - introduction	GRAPHIC AIDS: -introduction (contd)	GRAPHIC AIDS: -introduction (contd)	ASSIGNMENTS TO GRAPHIC AIDS	PARTICIPANTS ON PRODUCING	
DAY 6 SAT	ASSIGNMENTS TO	CONTINUE ON GRAPHIC AIDS	CONTINUE ON GRAPHIC AIDS	PRESENTATION OF (A) LETTERING (B) SIMPLE FIGURES: AND (C) GRAPHIC AIDS -IMPROVEMENT OF THE WORK DONE=		
SUNDAY	HOLIDAY (IF CONVENIENT THE PARTICIPANTS SHOULD CONTINUE TO WORK ON ASSIGNMENTS AND FINALISE THEM IN THE LIGHT OF THE POINTS MADE ON SATURDAY AFTERNOON)					

L U N C H
B R E A K

SUGGESTED TIME-TABLE FOR AUDIO-VISUAL AIDS WORKSHOP (P.2)

SESSION DAY	I	II	III	IV	V	VI
DAY 8 MON	EXPERIMENTS IN VISUALISATION -introduction	PRACTICE SESSION ON VISUALISATION : MATERIAL ETC.	EXPERIMENTS ON COLLECTION OF	ASSIGNMENTS -Group formation	GROUPS TO START WORKING ON ASSIGNMENTS: COLLECT MATERIAL AND PREPARE DRAFT	
DAY 9 TUE	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS
DAY 10 WED	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS
DAY 11 THU	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS	ASSIGNMENTS TO CONTINUE	ASSIGNMENTS TO CONTINUE	REVIEW OF WORK DONE SO FAR
DAY 12 FRI	PRESENTATION OF ASSIGNMENTS	PRESENTATION OF ASSIGNMENTS	PRESENTATION	PRESENTATION OF ASSIGNMENTS	PRESENTATION OF ASSIGNMENTS	REVIEW OF PRESENTATIONS
DAY 13 SAT	DISPLAY OF MATERIAL	GENERAL DISCUSSION WITH THE PARTICIPANTS ON THE WORK DONE DURING THE WORKSHOP		EVALUATION OF WORKSHOP	EVALUATION REPORT	CONCLUSION OF WORKSHOP
SUNDAY						

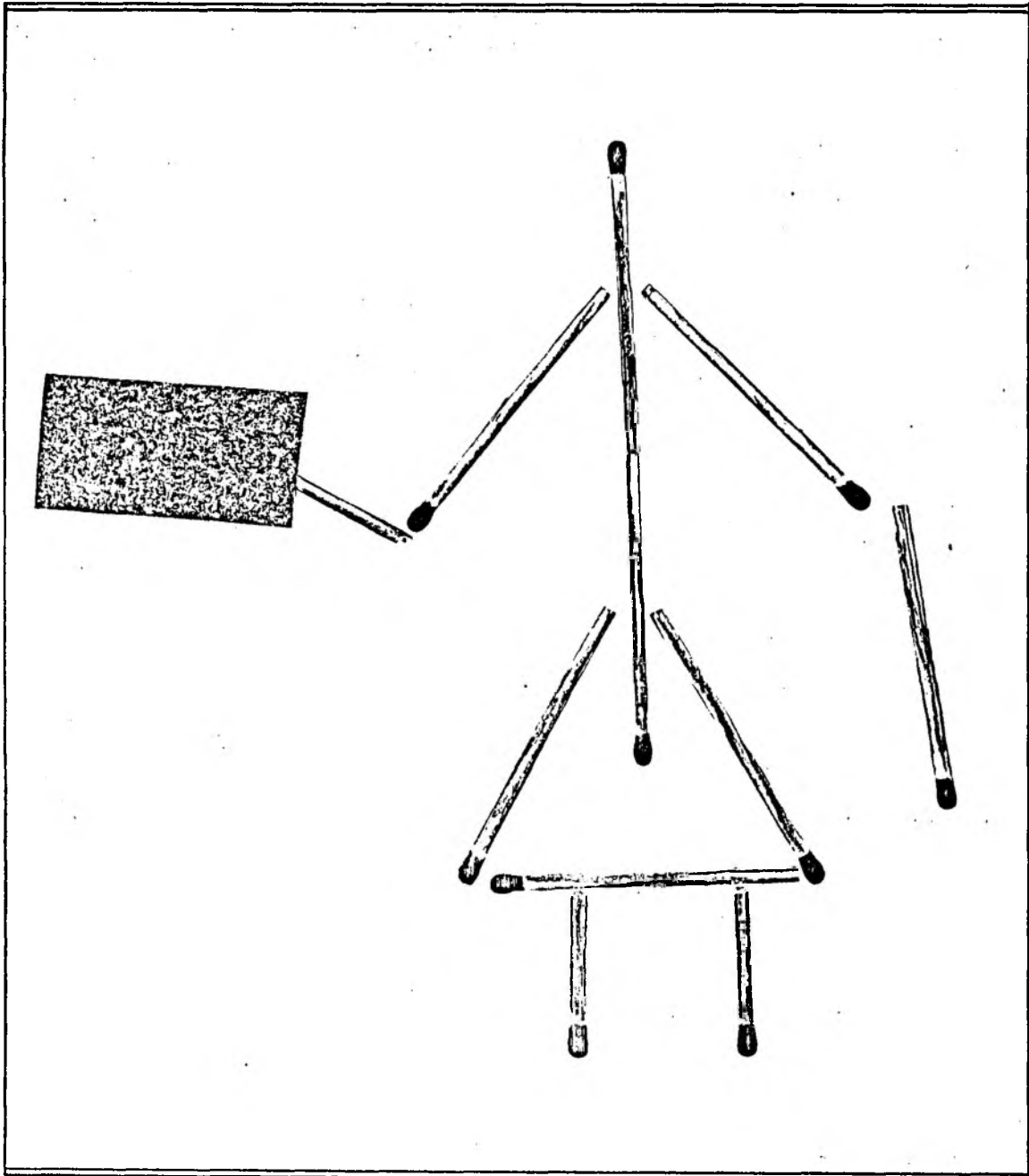
LUNCH BREAK

- All practical arrangements e.g., classroom arrangements, group work, proper seating arrangements, light and other facilities should be available and work;
- All assignments to be given to the participants must be decided in advance, perhaps, even in collaboration with the participants themselves. The trainer should know what he wants from the participants;
- All notes intended for distribution among the participants should be prepared and stencilled well in advance so that at the end of each session, the participants should receive their handouts;
- An evaluation of the workshop should be conducted towards the end of the workshop. For this purpose a proforma should be prepared well in advance and kept ready for use on the last day of the workshop;
- It is a good thing to arrange a small display of the graphic work done by the participants and invite some of the local leaders to have a look at the work done by the participants.

Conclusion

07 The handbook is a training material and provides sufficient material for running a 2-week training workshop for trainers. The material can be rearranged, reduced or expanded depending upon the situation. The training programme should be properly and efficiently conducted to obtain best results. Material needed for the conduct of the workshop should be purchased in advance and kept ready right on the first day in the first session.

STICK FIGURE



Use the match box and its sticks in your education work.