AFFORDABLE ALTERNATIVES FOR O.H.P. SLIDE MATERIALS

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THE NEED:

This article is for the institutes and individuals who find the expenses of conventional OHP transparencies and writing pens beyond their budget. The development of inexpensive alternatives for OHP transparencies has emerged out of the necessity of providing OHP writing material to the teaching staff who are financially unable to spend on it and still wish to make extensive use of the medium. The following KNOW HOW may be useful to them.

As a general experience, a lecture of one hour will need the use of four to ten OHP slides. Depending upon the nature of contents of the topic, a course of fifty hours will thus need 200 to 500 transparencies, and a few sets of OHP pens. The cost is estimated to Rs. 1000 to 2500. Even though, such a luxury is easily affordable to some teachers, a new entrant may find it difficult to procure.

Institutes, like public schools, having large number of teachers, will find such items beyond their budget. Nonaffordability has remained a deterrent in the use of OHP in many educational institutes. This article is for such institutes and individuals. The author is using this technique for several years effectively, and the material made by this simple technique has lasted for over fifteen years. When an OHP manufacturer was shown this technique, he was amazed by its effectiveness. This incidence induced the author to write on this topic.

THE MATERIALS:

Gelatin paper (not to be confused with similar looking plastic sheets available in the market), ordinary fountain pens of different nib thickness, opaque ink (e.g. CAMLIN FONT) ink), a set of colored sketch pens, paper stumps or cotton stubs (similar to ear and nose cleaning buds), a writing frame (details given below), few clean papers, old / used card sheet.

THE TECHNIQUE:

 Ordinary gelatin paper is water absorbent, and hence suitable for water based inks. It is available in

Applied Mechanics Department, Sinhagad College of Engineering,

- roughly 75X50 CMS. It can be cut in six equal pieces measuring 25X25 CMS. User space is 21X21 CMS. This squarish size is suitable to most of the OHP models. On bulk purchase the full sheet costs about Rs. 3.00, (i.e. Rs. 0.50 / cut piece of 25X25 CMS/)
- 2. Ordinary fountain pens can be used for writing on Gelatin paper, however, normal inks are too transparent for the use of projection. Opaque inks, such as CAMLIN FONT ink, provide crisp and bold characters. For normal writing 0.5 mm thick nibs are convenient, thin, sharp pens produce rickety characters which are not visible from the rear end of the class-room. Convenient height of characters is 4 to 5 mm.
- 3. Gelatin paper has much better transparency as compared to Polyester film, but it is too flimsy for storage. A helper can be easily trained to frame up your finished slides (see details). The frames can be made from waste card or drawing sheets.
- For erasing or lifting the ink, a damp paper stump or cotton bud is ideal. The skill of lifting ink, without leaving a trace can be quickly acquired.
- 5. Figures and sketches can be rendered in any colour available in the range of sketch pens. The sketch pen should be used from rear side of the Gelatin paper, keeping the black outline intact on the front. Large masses can also be filled with

- uniform or blended colours, using thick sketch pens or markers available in the market.
- 6. The frames are punched for filling. They can be numbered according to sequence of use. Generally, they are used once every year. For the year round storage, slides are bound by ordinary thread, and packed in paper or plastic bags.
- 7. For carrying and using the slides in class room, spring loaded clip files are convenient. These files permit removing sliders from one side and replacing them on the other side, without clumsy manipulation. Only one such file is needed for holding about ten slides of the current topic.
- 8. If gelatin paper is cut to A4 size, computer print-outs on it are possible if handled carefully. The sheets will have to be fed manually, one at a time. Thus the use of software for preparing displays is feasible.

SOME ACCESSORIES:

- Cut sheets of gelatin are so delicate that you need a paper frame to hold them down for writing. A simple frame made of waste file cover can be used for this purpose (see figure 1). A pale grid paper or graph paper can be pasted as a matrix on the backing sheet. Alternatively, replaceable sheets such as Logarithmic graphs, isometric or 3D grids can be substitute, which act as sketching grids.
- Gelatin paper easily catches the greasy film from the writers palm.

Use of a plane paper under the palm keeps the Gelatin surface intact.

- If the corners of the writing window are marked by four dots on the gelating paper, they act as limits for framing the slide. Four strips of size 27X5 CMS are used for framing. They are stapled down by eight on the slide (figure 2). These frames can be used for numbering slides and writing cues or instructions to the user (yourself).
- If slides warp due to OHP heat, it is necessary to press them down by a cardboard frame.

ECONOMICS:

The material cost of each slide is about Re. 0.50. The framing material can be recovered from waste stationery, which is available in plenty, in educational institutes. The efforts of framing the slides has not been evaluated here. A helper, trained for this job, will cost very little, besides, such expenses are already built in to the system.

ADVANTAGES AND DISADVANTAGES:

Physical:

- Gelatin slides provide sharp focus from corner to corner.
- Beautifully tinted, crisp figures are immensely appreciated by the students.
- Their low cost makes their use possible also as a scratch pad, e.g. One can use them to demonstrate operative geometrical constructions (throw away slides).

- They are biologically degradable, as a consequence, they don't add to environmental hazards.
- These slides can also be used during training period of teachers, for demonstrating how to prepare O.H.P. slides.
- Gelatin slides are very delicate.
 They are not water proof.
- They warp when kept on the OHP for a long time, however, they straighten up after cooling down.
- They absorb moisture during damp climate and become soft; yet, they are durable and serve the purpose.

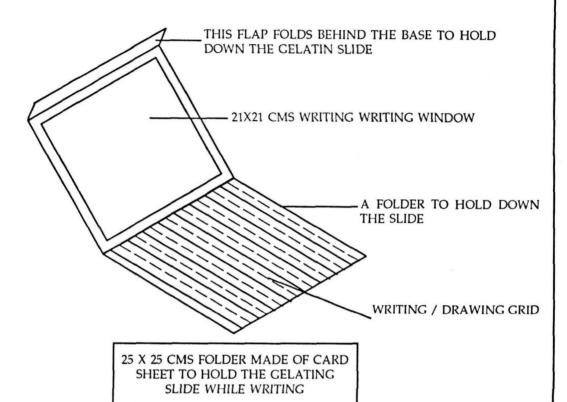
So! Who cares, so far as they beat the cost.

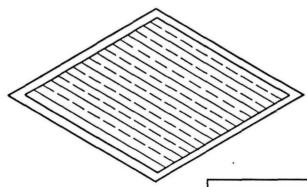
Hidden:

- The need of encouraging fresh teachers to use visuals aids has a strategic element. It makes an inexperiences young teacher to put his teaching scheme in black and white. Now, when he is made to write something which can be read by his seniors, he is careful. He refers various books, tends to use the appropriate phrases and the correct information. In contrast, the bucket of our supply of teaching aids starts filling from the top. The best teaching aid is available to senior teachers, who teach least. Mostly they are involved in administrating and decision making.
- To catch the young teachers to groom them for profession of teaching, they must be provided with a supply of affordable alternatives.
 Young teachers hold the top prior-

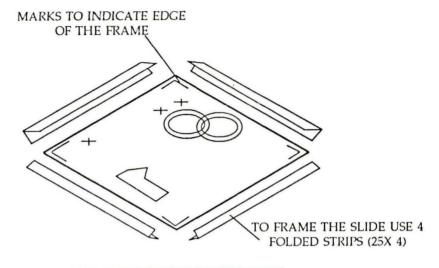
ity for this provision. This is even and conservative country like ours. more appropriate to developing







BLANK GELATING SHEET HELD UNDER THE FRAME FOR WRITING



A SLIDE READY FOR FRAMING WITH 4 BORDER STRIPS

