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POINT OF VIEW

Rethinking visual literacy: research in progress

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Abstract

A study currently underway in Nepal aims to discover how quickly standards of visual literacy can be improved by teaching several key clues to picture interpretation. Among non-literate populations, this could help to bring improvement to the effectiveness of extension workers in health, and many other areas. It is noted that research in the visual literacy field has given clear indications of the type of illustration most likely to be understood by people with limited exposure to printed materials. Such research has led to emphasis on a particular style of simplistic illustration typical of health and other development programmes in many third world countries. However, it is hypothesized that increased exposure to illustrated materials affects response. Making illustrations merely 'understandable' may not then be sufficient to challenge entrenched behaviour patterns which require more creative and imaginative interpretations.

Introduction

If a non-literate rural farmer has lived for 40 years without having learned anything from a piece of printed paper, he is unlikely to perceive a poster or a teaching aid as holding anything of relevance to him. This lack of familiarity with pictures or printed paper as a means of receiving information has enormous implications for those set with the task of communicating with non-literate rural families. In Nepal, 60% of the population are pre-literate, and in the majority of rural areas have had such little exposure to pictures and visual aids that there is also a low level of visual literacy.

A study presently being conducted in Nepal by the Centre for Development Communications in cooperation with UNICEF is examining how quickly preliterates can improve their visual literacy skills and whether the teaching of the elements of picture understanding such as perspective, action, direction and sequence will help in the greater understanding of visuals related to health. It is our hypothesis that once these visual clues have been pointed out to villagers and opportunities provided for them to explore pictures, very rapid improvement in the understanding of pictures will be observed.

The study uses line drawings to test visual understanding. Such emphasis reflects the generally poor quality of off-set and litho printing in Nepal. Here, as in many other developing countries, black and white photographs are often rendered unintelligible during the printing process. Some colour prints have been included in the research since major towns now have a facility for printing continuous tone colour photographs which could well be adapted in limited numbers for teaching aids.

Television and video are becoming more widely available in Nepal, with estimates that as much as 65% of the population will have access to a viewing hall by the early 1990s. The study will also encompass observations of the level of understanding of dramatic, documentary and cartoon videos among non-literate villagers. This may also assist in the

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design of health communication programmes using this medium.

Visual literacy research

Research into visual literacy in many countries has succeeded in providing guidelines to the kinds of pictures most rural people in the developing world can easily recognize. A comprehensive study in Nepal in 1976, for example, showed that simple three-tone drawings of familiar objects which omitted superfluous or confusing detail were recognized by ~72% of adult villagers who had not attended school (Haaland, 1976). These findings confirmed research into visual literacy in Zambia where an absence of confusing background detail proved important in increasing visual understanding (Fuglesang, 1973). Similar investigations with similar results were carried out in Brazil, Kenya and New Guinea, and more recently in Somalia and Rwanda (Fonseca and Kearl, 1960; Holmes, 1962; Walker, 1979; Cook, 1981; Haaland 1987; Gurgen and Simenyimana, 1987).

In most of these studies and in the substantial body of research into cross-cultural visual perception carried out by psychologists, the absence of pictures in most rural environments has been identified as the most important factor in inhibiting visual literacy. In most cases, however, research has stopped short of examining how quickly non-literates come to understand pictorial images, either through increased exposure or once the basic principles of picture interpretation have been taught.

Other factors besides exposure to pictures have also been identified as inhibitors of visual literacy. For example, restrictive socialization processes, which do not encourage or stimulate curiosity about the environment, in children may affect the development of certain perceptual skills (Greenfield, 1968, p. 286). On the other hand, children who grow up being actively encouraged to handle materials and objects in their environment have demonstrated special skill in conservation exercises conducted according to Piagetian concepts of perceptual development (Price-Williams, 1961). In some societies correlations have been established between schooling and the higher levels of visual perception, involving cognitive processes. In others, however, where the child's manipulation of the environment is particularly high, such differences between schooled and unschooled children appear less significant (Greenfield, 1968, ch. 11). It has also been hypothesized that languages which are richer in geometrical and spatial terms will allow easier transmission of spatial and orienting concepts and information (Berry, 1971). Such factors will also be examined in the Nepal study, related to the improvement in visual literacy.

Quality of illustration

An underestimated yet significant factor in past visual literacy and cross-cultural perception research has been the quality of the illustrations used to test understanding. For example, Figure 1 shows an illustration used to test understanding of perception among pre-literates in South Africa (Hudson, 1967). Respondents were asked 'Which is closer to the man, the elephant or the gazelle?' Those who saw the image two-dimensionally replied that the elephant was closer, while those who saw it three-dimensionally perceived the gazelle as closer. The present study asks similar questions, although of illustrations which require more artistic skill in their execution (Figures 2 and 3).

Although there is an unavoidably arbitrary element in the definition of realism, to use less than the best available illustrated materials for such research places greater strain on the initial perception levels of pre-

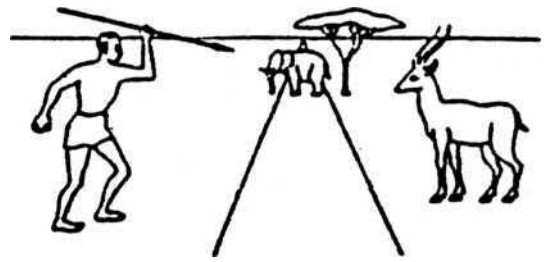

Figure 1. Outline drawing used to test depth perception (Hudson, 1967).

Figure 2. *'Is* the woman carrying the man closer to the health post or the tree?' Perspective test from the Nepal study.

Figure 3. 'Which water buffalo is closer to the man?' Perspective test from the Nepal study.

literates and throws a number of other studies into considerable doubt. Thus particular attention has been given to the quality of illustrations used in the study, all of which have been drawn by local artists. Examples are shown in Figures 4 and 5 which will be used to test and teach understanding of emotion and sequence.

Although a comparatively small capital city of less than half a million people, Kathmandu is disproportionately rich in skilled artists, but this has not always been reflected in the standard of materials produced as teaching aids. In most developing countries, little importance is given to the role artists need to play in communicating with non-literates. Extension workers have sometimes tried to overcome the problem of low standards of illustration by teaching non-literates the representational meaning of flat, more symbolic illustrations, often drawn by villagers themselves. However, this creates familiarity with a given style which may not have the sort of wider national application that health authorities look for.

The Nepal study will be exploring understanding of fixed point perspective as fostered by the European schools of art and reinforced through photography, as opposed to the multi-point perspective which is commonly found on more traditional forms of art in Nepal. In most parts of the country, however, examples of even these traditional styles are in short supply and only remain typical of Buddhist influenced art. An estimated 90% of the population is Hindu.

Health materials in Nepal, as in other countries, often adopt instructional rather than educational approaches. The latter requires more imaginative and creative interpretations, which collectively promote the desirability of new behaviour patterns. Increased visual literacy provides opportunities for greater variety in the portrayal of health messages, hence the emphasis given to such features as sequence, emotion and motion in the Nepal study.

The use of good quality materials (as defined by a group of local professional artists) in the study also relates to a further hypothesis that as visual literacy grows so too does visual appreciation and attraction; i.e. at a relatively early stage, villagers may become able to distinguish between better and poorer quality illustrations, which could hold consequences for their response to the messages they portray.

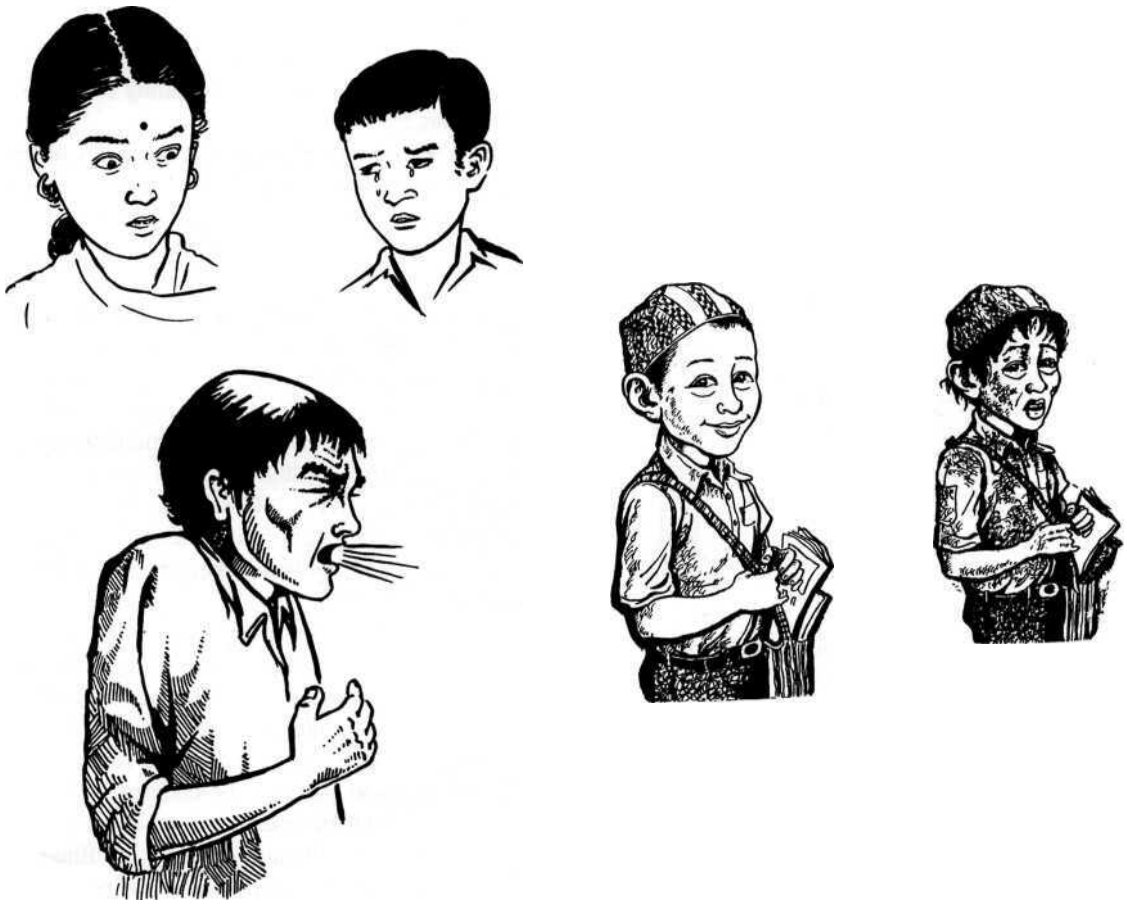

Figure 4. Fear, crying, coughing. Happy and clean. Sad and dirty. Emotion tests from the Nepal study.

Should these hypotheses be borne out by research the consequences for the use of illustrations in health education could be quite considerable. For example, as a result of past visual literacy research, a particular style of simplistic illustration has been created which is designed to be understandable by all villagers. Yet as visual literacy improves through increased exposure to pictures so the way in which people respond to them may change. Making an illustration merely 'understandable' may no longer be sufficient for reinforcing or attracting people towards the kind of behavioural change which many health-oriented illustrations are designed to achieve.

The importance of such a viewpoint is borne out in the experience of fast-growing cities in the developing world, where exposure to increasingly sophisticated advertising is growing, while health education materials typically remain in the simplistic idiom. The development of preference for more challenging modes of illustration may be no less significant in a rural environment.

Methodology

Interviews will be taking place with 480 non-literate respondents from 16 villages in eight districts in Nepal. The selection of survey sites will reflect the considerable variations in Nepal's geography and

Figure 5. From *New Vision* comic strip magazine. Sequence tests from the Nepal study.

cultural/language groups. A higher proportion of women will be interviewed since they are the focal point for communication regarding mother and child issues. Women also represent a larger proportion of the illiterate population in Nepal. All the respondents will be visited six times during the 3 months of the study, with an interval of 2 weeks between visits.

Two locations will be selected in each district, one to be used as a control and the other as experiment. In each centre a set of pictures will be exposed and

reactions recorded using a structured scoring instrument. In the experimental location, however, this will be followed by an educational phase aimed at improving picture interpretation. This process will be repeated on each visit to the experimental sites. In addition, reactions to video will be observed by showing three short sequences: a drama, a documentary and a cartoon. A questionnaire will be completed and observations recorded after each screening. Background information on each village site will also be recorded concerning demography, economy, child-rearing practices, education and communications (access to roads, radios, development projects and the availability of printed materials).

Completing the research

Field research for the Nepal study is taking place during July to October 1988. Results should be published early in 1989. Anyone interested in obtaining more information should contact the author.

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