

PICTURES IN THE EARLY YEARS OF SCHOOLING :
AN INVESTIGATION INTO TEACHERS' VALUES AND
USES FOR PICTURES IN INFANT CLASSROOMS.

RON BROWN

Submitted for the Degree of Doctor
of Philosophy in Education.

University of York
Department of Education

NOVEMBER 1987

CONTENTS

VOLUME I

	<u>PAGE NO.</u>
List of diagrams and tables	(v)
List of plates	(vii)
Acknowledgements	(viii)
Abstract	(ix)
<u>INTRODUCTION</u>	1
<u>CHAPTER ONE - THE VALUE OF PICTURES IN THE EARLY YEARS OF SCHOOLING</u>	5
Theoretical frameworks of picture perception	6
Can pictures help verbal learning?	12
Do pictures help other kinds of learning?	15
Are pictures or actual objects more effective?	17
Are pictures more effective with some learners than others? ..	20
How do pictures motivate pupils?	22
Do children need to learn about pictures?	25
Can pictorial research be applied to the classroom?	30
Summary	34
<u>CHAPTER TWO - RATIONALE, AIMS AND STRUCTURE OF THE STUDY</u>	39
The impact of research on practice	39
Aims of the study	49
The Structure of the study	50
Stage 1 - The exploratory group	51
Stage 2 - The questionnaire survey	52
Stage 3 - The school examples	53
<u>CHAPTER THREE - THE EXPLORATORY GROUP</u>	55
Agenda and activities	58
Recording the meetings	61
Inter-meeting activities	62
Results	63
Issues for investigation	67
Teachers' general relationship with pictures	68
Views on the purposes of pictures in the early years	69
Ways of investigating the issues	70
The value of the exploratory group method	72
Summary	73

<u>CHAPTER FOUR - THE SURVEY : RATIONALE AND METHOD</u>	75
Teaching style as a variable	77
Questionnaire design	96
Piloting the questionnaire	101
The sample	102
The method	103
Questionnaire follow-up interviews	104
<u>CHAPTER FIVE - RESULTS OF THE SURVEY</u>	106
Independent variables	106
Reported ways of behaving in the classroom	109
1. Teaching style	109
2. Teachers' classroom uses for pictures	110
Questions of opinion	114
1. The contribution of pictures to development	114
2. Preferences for pictures	117
3. Wall displays	121
4. Children's understanding of pictures	123
5. Teacher-made pictures	128
6. Pictures in early reading books	128
7. Pictures and special educational needs	131
8. Teacher qualities	132
Written comments made on the questionnaire form	133
1. Uses of pictures in the school and classroom	134
2. Teacher-made pictures	140
3. Techniques to help children with special educational needs	141
4. Storage and retrieval systems	144
5. Wall displays	146
6. Unsolicited comments	148
Summary and discussion of written comments	149
<u>CHAPTER SIX - DISCUSSION OF SURVEY</u>	152
Classroom uses for pictures	152
Typology of picture functions	157
Teachers' preferences for pictures	159
Storage and retrieval	162
The value and function of display	163
The pupils' understanding of pictures	166
Pictures in beginning reading books	171
Special educational needs	172
Teacher variables and teaching styles	174
Teachers and pictorial literacy	179
Conclusions	180

<u>CHAPTER SEVEN</u> - THE SCHOOL EXAMPLES : RATIONALE AND METHOD	185
Problems of generalisation of research	185
Case study as a means of complementing the survey	187
Method	193
The interviews	194
The classroom observation	199
Recording techniques	200
Techniques of analysis	202
The sample	205
Summary of method	206
<u>CHAPTER EIGHT</u> - CLASSROOM USES FOR PICTURES	208
Ways of describing functions	208
Areas of learning and development	208
Special educational needs	218
Categorising uses for pictures	220
Summary and discussion	224
<u>CHAPTER NINE</u> - DISPLAY	228
School policy and the context of display	228
Organisation of display	231
The value of display	232
The function of display	233
Description of display	234
The results of the observations	266
Discussion of observation schedule	274
Display and classroom climate	275
Discussion of display results	280
<u>CHAPTER TEN</u> - THE PICTORIAL CLIMATE	286
Definition	286
Teacher preference	286
Children's understanding of pictures	290
Teaching approach and picture use	294
The institutional context	304
Summary and discussion of pictorial climate	305
<u>CHAPTER ELEVEN</u> - CONCLUSIONS	312
Research methods	327

CONTENTS

VOLUME II

PAGE NO.

SECTION ONE: THE EXPLORATORY GROUP

Letters related to the exploratory group	2
Examples of exploratory group meeting records	5
Examples of teachers' written accounts	14
Analysis of teachers' written accounts	24

SECTION TWO: THE QUESTIONNAIRE SURVEY

The questionnaire form	30
Letters related to the questionnaire survey	46
Table 3b: Correlation coefficients for significant variables	49
Collation of comments made in follow-up interviews	52

SECTION THREE: THE SCHOOL EXAMPLES

Types and coding of observations and interviews	59
School example field notes	61
Letter inviting comments on field notes	102
Collation of comments made by teachers	103
Collation of comments made by headteachers	107
Collation of observations of wall displays	112
Summary of statements of teachers' intentions	127
Summary of teachers' evaluations of observed episodes	129

<u>REFERENCES</u>	132
---------------------------	-----

LIST OF DIAGRAMS AND TABLES

		<u>PAGE NO.</u>
DIAGRAM 1	Frequency of responses for questions in 'Teaching Style' section, as percentages of total responses ..	108
TABLE 1	Correlations between 'teaching style' variables ..	110
TABLE 2	Frequencies of response as percentages of total for 'uses of pictures in the classroom'	111
TABLE 3	Levels of significance of correlation between dependent and independent variables	113
TABLE 4	Frequencies of response as percentages of total for 'contribution of pictures to development'	115
TABLE 5	Responses, expressed as percentages, to the 'Preferences for Pictures' section, with five point scale collapsed to three	118
TABLE 6	Responses to questions in 'Wall Display' section expressed as percentages with five point scale collapsed to three	122
TABLE 7	Responses to 'children's understanding of pictures' section shown as a percentage of total responses ..	124
TABLE 8	Significance level of correlations between independent variables and questions recorded to show 'certainty'	126
TABLE 9	Responses to questions in 'Teacher-made Pictures' shown as percentage of total responses	127
TABLE 10	Response to questions in the 'Pictures in Beginning Reading Books' section, shown as percentages of total responses	129
TABLE 11	Relationship between percentage of teachers reporting that children are able, or partly able, to demonstrate ability, and age of acquisition as claimed by research studies	168

TABLE 12	Grouping of main intentions articulated by teachers for the observed activity (c)	210
TABLE 13	Interviews analysed in terms of number of comments on functions of pictures in terms of postulated typology	220
TABLE 14	Functions of pictures in observed activities in terms of postulated typology	222
TABLE 15	Overall network for display	251
TABLE 16	Examples of display network from PRESENTATION ..	252
TABLE 17	Expansion of display network from PRODUCTION	253
TABLE 18	Expansion of display network from CONTENT	254
TABLE 19	Expansion of display network from CONTROL	255
TABLE 20	Expansion of display network from ORGANISATION ..	256
TABLE 21	Expansion of display network from POLICY	257
TABLE 22	Expansion of display network from INFLUENCES	258
TABLE 23	Expansion of display network from FUNCTION	259
TABLE 24	Expansion of display network from ATTRIBUTES	260
TABLE 25	Features of teachers' evaluation of observed teaching episodes	299

LIST OF PLATES

		<u>PAGE NO.</u>
PLATE 1	Teacher-made 'stimulation' display	242
PLATE 2	'Multiple matrix'	242
PLATE 3	'Example matrix'	243
PLATE 4	'Inventory collection'	243
PLATE 5	'Pictorial tableau '	244
PLATE 6	'Diagrammatic tableau'	244
PLATE 7	'Diagrammatic tableau'	245
PLATE 8	'Window display tableau'	245
PLATE 9	Example showing 'item contribution' of pupils ..	246
PLATE 10	Example showing 'component contribution' of pupils	246
PLATE 11	Circular diagram arrangement	247
PLATE 12	'Parts/Whole' arrangement	247
PLATE 13	Familiar objects from an unfamiliar point of view	248
PLATE 14	Complex thematic arrangement	248

ACKNOWLEDGEMENTS

This study would not have been possible without the active involvement of a great many teachers and headteachers in infants schools in Durham and Leeds, among whom I am especially grateful to those who participated in the exploratory group and the school examples. It is a tribute to the professionalism of infants teachers that all this help was freely given without hope of personal gain or recognition.

I am equally indebted to my supervisor, Dr. Chris Kyriacou, for his advice and guidance, to my wife and family for their unceasing support, and my colleagues in the advisory service and institutions of higher education in Durham and Leeds.

ABSTRACT

Whilst research into pictures as facilitators of school learning, and the development of pictorial literacy over the early years is extensive, little work exists to show how pictures are used in classrooms, or how teachers believe they contribute to their pupils' learning. Similarly, there is little to indicate the extent to which existing research influences classroom practice.

The study addresses these areas by exploring ways in which teachers value and use pictures and the relationship between this and what is suggested by research. The research design acknowledges the need to make the teacher's perspective central by using an exploratory group of teachers to focus the questions and clarify the terminology. This informs the design of a questionnaire survey of infant schools in two northern LEAs, which in turn is complemented and extended by a series of school examples comprising interview and observation in fifteen of the survey schools.

The results indicate that the most influential factor in determining picture use is teaching style defined by a scale from progressive to non-progressive teaching approaches, which challenges recent work questioning the value of this dimension of teaching style. A typology of picture use is developed which supports the survey finding that teachers stress the value of pictures to cognitive development over social and aesthetic development. This corresponds with teachers' criteria for the selection of pictures but is in tension with their stated values which tend to be 'whole child' and 'child centred'. Similar dilemmas are evident in relation to the intentions and actuality of wall displays and specific teaching episodes. Techniques for the attempted resolution of these dilemmas are identified.

There are also indications that existing research has little impact upon classroom practice with the possible exception of work on children's pictorial preferences. In particular the pattern of pictorial development identified by research does not appear to be reflected either in the curriculum or pedagogic techniques employed.

INTRODUCTION

Pictures are not only a means of communicating information, they are also an important vehicle for the culture of any society (Bruner and Olsen, 1973). As such they play a prominent part in education and have been the subject of a substantial body of research into learning. A review of this research reveals that although there is a proportion which offers prescriptions for classroom practice very little originates there. The practice of teachers, their values and classroom uses for pictures, is rarely taken as the subject of research, and by and large appears, not surprisingly, to have little influence upon it. This seems to be an anomalous and asymmetrical state of affairs if it is hoped that the research will impact upon the classroom, especially in the current educational climate where the relationship between research and practice is the subject of searching debate.

Recent years have seen a substantial growth in the number of studies aimed at researching educational practice in an effort to redress this balance and better inform both the research and teaching communities. Notwithstanding the importance of pictures to schooling, the area has to date received little benefit from this movement and the great majority of the literature is either esoteric or offers unexplained prescriptions, which may well be tangential to classroom practice.

With this in mind the present study sets out to explore, and hopefully illuminate, the values teachers hold about pictures as educational aids and their practices with them. In doing so it also explores the impact of existing research upon current practice in infant schools in a northern region. The choice of the early years of schooling is intended to sharpen the focus in terms of gauging the influence of work into the development of picture perception: what has been called pictorial literacy. The study

centres upon pictorial literacy in that it is concerned to examine how teachers value and use pictures rather than the act of producing them, which can be said to relate to a further and different body of psychological and pedagogical theory.

In that the study is concerned to explore practice in a manner which will reveal something of the teacher's perspective on those questions which have been the concern of research into pictorial learning, and hopefully go beyond this to uncover the practitioner's concerns in the area, it is of the utmost importance that it be informed, as far as possible, by the teacher's point of view from the outset. The approach used to ensure this was an 'exploratory group' of teachers whose discussions were guided by a framework intended to ensure that issues were both fully explored and prioritized. The results of this had a bearing upon terminology, critical areas of practice, and the form which the investigation should take. This led to the decision to conduct a survey and also informed its design. The choice of questionnaire survey as the central research method of the study was mainly a response to the need embodied in the aims of the study to provide generalisable information about classroom practice, but was also influenced by the exploratory group's feeling that such information would be useful to the practitioner.

The exploratory group also informed the decision to include general teaching style as a variable in the survey in an attempt to identify significant sub-groups within the general population of infant teachers. As it turns out this is one of the more interesting factors touched upon by the results of the survey. The results of the questionnaire survey also reveal pictures as the locus of a number of dilemmas (in the terms of Berlak and Berlak, 1981) where apparently everyday decisions about picture use find themselves at the centre of ideological conflicts.

In a study of this sort the desire for generalisability is in tension with the desire to portray practice in as fine a grain as possible. For this reason, as well as the need to check out and enrich questionnaire responses the survey was complemented by a set of partial case studies termed 'school examples'. These were intended to collect more qualitative data which would flesh out the bare bones of the survey data. They involved a range of different sorts of interview and non-participant observation. The most important of these were taken to be observations of specific teaching episodes using pictures, which were supported by pre-and post-observation interviews aimed at relating what was seen to both the teacher's intentions for it and their evaluation of it. To be consistent with the desire to inform the study with the teacher's perspective, their intentions were used to decide the particular technique which would be used for any observation. This had the added advantage that the way in which teachers formed their intentions for teaching and learning with pictures could itself become a focus for investigation.

It is consistent with the aims of the study that the most important results are to be found in the detail of classroom use and teacher opinion.

However, a number of findings do have broader implications. These may be divided into those which are concerned with the ways that pictures are used and thought about in the infant school, and those which reveal the relationship between research and practice in the area.

Of the former a particularly clear finding is that the criteria for selection used by teachers for adult pictures is consistent with both the preponderantly instructional (Magne and Parknas, 1963) use for them which is uncovered, and their role as surrogates for experience held by the majority of teachers. It is also consistent with an observed pattern of use which emphasises the contribution of pictures to cognitive, and especially

linguistic, development at the expense of affective and aesthetic aspects of development. However, striking inconsistencies are also evident, with regard to the contrast between the high value assigned to pictures as learning aids, and the comparatively small amount of attention payed to the development of effective pedagogical techniques with pictures either in practice or in classroom focussed literature. Similarly the pattern of use described contrasts with forcefully held beliefs about the relative merits of pupils' and adult pictures held by teachers. These contradictions are taken as evidence that picture use represents a particularly clear basis for the expression of ideological dilemmas (Berlak and Berlak, 1981) and they are analysed in these terms, as well as in relation to what they reveal about the processes of teacher decision-making.

With regard to the impact of research upon practice, the results may be taken in relation to both picture learning research which produces direct recommendations for practice, and that which reveals and describes developmental stages in the acquisition of picture perception skills. For the former the results show that there is little impact of much of it either on classroom practices themselves or on the layer of literature which sets out to directly guide classroom practices. A similar negative pattern is evident with regard to the latter, except that there is some identification by teachers of differences with age in the picture abilities of children. The results show that recognition of developmental patterns in picture perception is not expressed in either the planning or the practice of teachers in the present sample. The implications of this are considered in relation to both direct learning about pictures within the curriculum and the effectiveness of pictures as a support for other learning in the classroom setting.

CHAPTER ONE

THE VALUE OF PICTURES IN THE EARLY YEARS OF SCHOOLING

It is a matter of common observation that pictures are much in evidence in the nursery and infant classroom. They are present in different sorts of location and are of different types, which in itself may suggest a range of educational intentions for them. Most prominent are wall displays, often a mixture of children's work (the co-operatively produced frieze is common), commercially produced pictures and teacher produced pictures. They can also be seen on a wide range of apparatus and toys sometimes as an intrinsic part as with jigsaw puzzles, and sometimes with an apparently decorative role as with some building blocks. The books will be either picture books in themselves or extensively illustrated reading books.

What this proliferation means in terms of the time and effort of the teacher suggests that pictures are seen as making a significant contribution to the infant's learning. It is the intention of this chapter to examine this belief by reviewing some of the existing work which addresses itself to the function and value of pictures in education and in particular early childhood education. It is hoped that in doing so a framework for the examination of these factors can be suggested. The focus on early childhood learning reflects the writer's belief that evidence exists to suggest that pictures have a special significance in infant education.

It is normal for those who review any aspect of pictures and learning to note among their conclusions that whilst research on the effects of pictures on learning has a long way to go it does have something to offer the practical teaching situation. An example comes from the closing remarks of Fleming (1979) who suggests that the existing state of the art in pictorial research is such that:

the place of pictures in education can no longer be ignored or relegated to the peripheral status of an optional learning aid (p. 249).

The more systematic application of research to education which he advocates would influence the ways in which teachers select and employ pictures to achieve particular educational goals, or even modify the goals themselves.

It is clear from the most casual observation of infant classrooms that there are a number of implied functions of pictures. That is to say different ways of using pictures to achieve a variety of educational goals. Some of these functions can be envisaged as axes with complementary functions at either end of a scale. For example, a decorative function at one end to an information carrying function on the other, or a general environmental function to one which is specified to a particular piece of learning. Yet again the function may be to assist the acquisition of knowledge and skills in other areas such as language or numeracy or they may be intended for the purpose of learning about pictures themselves.

Theoretical frameworks of picture perception

For the purpose of this examination it is intended to focus upon the learner responding to pictures; what may be called 'reading' pictures. In the main the pictures in question will not be those produced by the child himself. It is clear that the relationship between the child and a picture which he has made begs a number of questions about identification and pictorial comprehension, which are open when we consider looking at other pictures. However, this does not exclude responding to children's pictures from our consideration; only those produced by the viewer himself.

In order to establish a context for this examination some mention must be made of the discussion surrounding the nature of pictorial representation.

Morris (1946) made the distinction, within what he describes as 'signs', between iconic and non-iconic. The iconic sign shares some of the properties of the thing denoted and the non-iconic does not. A picture of a house, he would claim, shares proportion, some aspects of tone, possibly colour and so on with the house itself, whereas the word shares only the common referent. It may be said that the iconic sign surrogates by the use of 'projection' and the non-iconic sign by 'convention' (Gibson, 1954). Pictures are iconic in this sense and words, whether spoken or written, are non-iconic. There is, of course, much ground between: diagrams, maps, pictograms and so on.

This distinction is far from unchallenged, for example Goodman (1968) presents a constructionist theory in which pictorial representation is an arbitrary conventional language. For a detailed discussion of conventional and projective models of picture perception see Hagen (1980). The question of whether pictures are fundamentally different from words and in what respect continues. However, for the present examination it is reasonable to agree with Wittgenstein (1961) that pictures do seem to resemble objects in a way which words do not. From the point of view of infant learning there are inescapable practical differences between words and pictures which influence their differential use. For example, young children can recognise pictures long before they can recognise written words and the process of acquiring this ability seems to be largely accomplished without the need for direct instruction. Hochberg and Brooks (1962), in their influential study, report that a two year old who had, as far as possible, been denied any instruction in (or even sight of) pictures had no difficulty in recognising familiar objects when depicted as photographs or line drawings. This is not

to claim that the development of picture perception in infants is independent of learning. Indeed there are many studies which indicate that learning and even some measure of direct instruction may be necessary for the acquisition of many pictorial perception skills (Serpell, 1976; Brown, 1981; Constable et al, 1987). However, to the infant teacher words and pictures present themselves as very different modes of communicating with their children, and the ways in which each figure in their educational goals and methods are likely to be equally different.

Many of the ways of using pictures with young children depend upon pictures and words operating as symbols for the same referent. A number of studies compare ways of learning pictures and words and look at ways of facilitating the learning of one by the other. One of the things which emerges is that pictures seem to have better recall than words (Shepard, 1967; Brown and Scott, 1971; Richley, 1980, 1982), this would suggest that pictures can, at least, have a mnemonic value in remembering written texts.

Cognitive models which are postulated to account for the superiority of pictorial memory largely polarise over the question of whether there is separate coding for pictures and words. This resolves into a controversy over the level of abstraction at which the coded perceptions present information to the memory. At this time the most influential model is the dual coding model supported by Pavio (1977, 1978), Kosslyn and Pomerantz (1977), and Kosslyn and Schwartz (1977). In this model pictures and words are coded separately to a modality-specific memory system. A different explanation was offered by Pylyshyn (1973) who proposed an abstract-propositional memory system that is at a greater level of abstraction from the particular stimuli, and represents both words and pictures in the same way.

A number of workers have produced models which synthesise these theories. Potter (1979) argues that modality-specific codes for words and pictures do exist as lexical entries for words and images of pictures, but that meaning is represented for both in an amodal system which he refers to as abstract or conceptual memory. Another synthesis is proposed by Seymour (1976), together with Morton (1979), who suggests a logogen system which indicates both the phonological and visual characteristics of words, and an analogous iconogen system which encodes the visual characteristics of pictures, the meaning of both being represented in an abstract-propositional, or conceptual memory. More recently Jolicoeur et al (1984) have developed a model which postulates a basic-level access to specific concepts that may be different for words and pictures but permits a common referent, thus accommodating observations which have previously been taken as supporting dual coding.

The question of how percepts are presented to the memory is important to the consideration of pictures and learning in that it connects with the idea of mental imagery. Studies have convincingly demonstrated that forming a mental image of the item to be learned facilitates recall (Bower, 1972). Most models of mental imagery draw upon the dual coding system to explain its effectiveness in learning. That is to say the formation of the mental image gives direct and immediate access to the pictorially coded aspects of memory. It is less easy to see how mental imagery works with an abstract-propositional memory theory.

However essential the foregoing questions are to an understanding of the effects of pictures on learning they do not necessarily reflect the concerns of the teacher, who is more likely to be interested in immediate practical benefits than psychological mechanisms. Yet what may constitute these immediate practical benefits to infant teachers is itself problematic. What

will be addressed here are questions which, at least on the face of it, appear to be relevant. In order to do so it is necessary to consider categories for thinking about pictures in relation to school learning.

Vernon (1950) suggested two major functions for pictures in school learning each of which subsumed a range of sub-functions. A distinction was drawn between pictures influencing the emotional aspects of a task and facilitating the cognitive aspects of the task. Magne and Parknas (1963) postulated a similar dichotomy by drawing a distinction between the motivational value and the informational value. This broad division is one which is present in almost all analyses of pictorial uses, and implied by the distribution of areas of research in the field. A more complex analysis is offered by Fleming (1967) who develops a taxonomy in which type of picture, and amount or type of verbal labelling interact with educational aims for the material.

Looking at the possible roles of illustrations in instructional texts Duchastel (1978) identified three major functions:

- (a) Attentional - Illustrations which make the text more interesting to pick up, more interesting to browse through, and more interesting to read.
- (b) Explicative - Illustrations which assist the pupil to understand the material, which explain a given aspect or introduce or add something which is not clearly expressed in words.
- (c) Retentional - Illustrations which assist the pupil to remember the material or assist recall.

Each of these models, useful as they are, tend to concentrate upon the sort of distinction which can be made when examining a particular instructional episode; pictures in a reading book, or as illustrations on a maths work-card. They do not take into consideration the broader, more indirect aspects of learning in the infant classroom. For example, they do not consider the question of learning about pictures themselves, nor do they portray a wide view of the range of different types of learning which go on in the classroom.

The questions used here are an attempt to cover a wider view, whilst permitting the work of established theory and research to be applied to the analysis. They are informed by a need to reflect upon the following perspectives:

1. The directness and specificity of the part played by pictures in facilitating learning. This will vary from highly systematized uses, specified to narrow areas of learning, to ways of enhancing the general learning environment.
2. The extent to which the individual applications can be related to the cognitive or affective aspects of the learner. This is largely in line with Magne and Parkna's (1963) distinction between the motivational and informational functions of pictures in education.
3. The range of learning which pictures might facilitate. At one level this will include their use in learning about pictures themselves as well as ways in which pictures might facilitate the learning of other things, for example, verbal learning.

All of the above perspectives can be seen to interact with a range of other significant variables such as type of picture, ways of defining learning, variations in educational objectives, variations in presentation, and differences between learners. Such a complex of interacting areas of consideration may be valuable in locating work within the field, but in order to relate to the classroom it is necessary to orient the examination to the sort of questions which a teacher may ask to help him/her come to curriculum decisions in relation to pictures.. These might include - what are the sorts of learning where pictures can be most valuable? Are there particular types of pictures for particular types of learning? What are the best ways of presenting pictures for particular types of learning? Should their use discriminate between different sorts of pupil? It is hoped that the organisation of this examination will, in part at least, offer answers to some of the questions.

Can pictures help verbal learning?

The great majority of studies which have investigated the effects of pictures on the child's ability to recall words, presented either in a list or the context of the story, show that they do help children remember the words (Reese, 1970; Peek, 1974; Rohwer and Harris, 1975; Levin, 1979). From this sort of study the value of pictures to simple memory tasks is well established. One objection identified by some writers is that the observed value of pictures could be largely accounted for by the time spent looking at the pictures being an opportunity to rehearse the words. This 'simple rehearsal hypothesis' was investigated by Levin et al (1976) in relation to recall of words presented orally in a story and they found that controlling for it still produced a clear facilitating effect for pictures.

The evidence for the value of pictures in reading texts is less clear. Rankin and Culhane (1970), Samuels (1970) and Concannon (1975) throw some doubt on the value of pictures for early readers.

There was almost unanimous agreement that pictures, when used as adjuncts to the printed text, do not facilitate comprehension. (Samuels, 1970, p. 405.)

They find a clear indication that in this particular context pictures distract from the business of discriminating the words, and that this is particularly so during the early stages of reading when basic sight vocabulary is being built. Yet, in a later study, Samuels et al (1974) showed that coloured pictures did make books attractive to young children. They concluded that pictures were of importance in the pre-reading period to encourage children to want to read, and although they showed that, later, pictures could act as referents for unknown or partly known words, they nevertheless concluded that pictures are a dangerous way of trying to facilitate vocabulary acquisition. More recently Denburg (1976-77) has shown that with specifically designed pictures which have no background and only show subject and predicate, vocabulary acquisition can be facilitated. It would appear that the danger arises from using complex pictures where the likelihood of selecting the wrong referent for a word is high.

This objection centres upon the distracting effect of pictures when they cannot be relied upon to present particular words in the text. When we consider children who are beginning the initial reading stages the pattern is different. For example, the work on picture memory superiority (Standing et al, 1970), previously mentioned, opens up the possibility of pictures acting in a general mnemonic way to assist recall of the action of the story as opposed to explaining individual words. A number of different approaches to this question have been investigated. For example, whether the picture

should agree with the text has been examined by Bock and Milz (1977). They accompanied sentences which had ambiguous pronouns with pictures that corrected the ambiguity and found that sentences with pictures were significantly better remembered than when the ambiguity remained. However, the effect of the picture went beyond merely clearing up the ambiguity since the sentence/picture combination was significantly more memorable than when adjectives or prepositional phrases were added to clear up the ambiguity. In a later experiment Bock (1978) found that preceding a lexically ambiguous sentence with a picture increased the depth of semantic analysis. Similarly Peeck (1974) compared the effects of pictures which added to the text, pictures which agreed with the text, and pictures which contradicted the text with conditions of text alone. In each the presence of the picture improved recall and where the picture contradicted the text children tended to answer in agreement with the picture. Peng and Levin (1978) looked at the longer term memory effects of accompanying stories with pictures. They found that elementary children remembered more if they heard a story and saw pictures than if they read along as the story was read to them.

The general trend of all these studies is that when both pictures and text are attended to, pictures tend to assist recall of the text. The most common explanation for this observed effect is mental imagery. That is to say that pictures help or stimulate the formation of mental images which assist recall by offering retrieval through both codes where the pictorial code is the stronger anyway. Our earlier discussion showed that this explanation has not gone unchallenged, but it remains consistent with much of the observed data. Several studies have tried to bear on this point by attempting to stimulate mental imagery more directly. Levin et al (1977) looked at the effect of stimulating mental imagery by tracing target figures in the air, showing that this was most effective when the subject turned away from, rather than tracing on top of, the target figure. Similarly,

Snowman and Cunningham (1975) showed that drawing pictures had a highly facilitative effect on memory and concluded that activity generated the highest level of mental imagery. Yet simply asking children to form mental images in relation to printed texts was found by Pressley (1976) to aid recall. He went on (Pressley, 1977) to examine the relationship between picture reading and mental imagery by reviewing the field. He concluded that pictures can be a powerful way of stimulating mental imagery, but that it depends upon the picture and how it is used. In support of Davidson (1964) he claims that pictures which show objects arranged in an interactive way are most effective at generating mental imagery.

Do pictures help other kinds of learning?

Although much of the research into pictures and learning has focussed upon the facilitation of language, their place in facilitating other forms of learning has not been disregarded. In reviewing research on the effects of pictures on concept formation, Fleming (1979) suggests that although studies show that concepts can be facilitated by pictures, the combination of pictures and words seems to be most effective. However, for young children, this may not always be possible, at least with written words. Booker (1975) examined the differential effects of pictures and words on procedural learning. He looked at various combinations of pictures and printed words. The printed words only version produced the lowest error, but took the longest time, while the pictures only version had the opposite effect. The best combinations by both criteria, were primarily pictorial with some related or redundant words. When investigating different sorts of media Spangenberg (1973) found that still pictures plus an oral explanation were as good as movies for procedural learning, when only simple actions were represented. More recently Murphy and Wood (1981) looked at the extent to which pictures could be used to carry instructions, in the form of a

particular procedure for a simple block construction. They found that the extent to which children were influenced by the pictures varied significantly with age. All the children from four years upward were able to make some use of the pictures as a source of instruction, but age differences remained evident both in relation to the amount of reference made to the pictures and to how it influenced them to make successful constructions. That is to say much of the looking by young children did not seem to convey the sequence or procedure in a way that it did with the older ones. Working with older children, Holliday (1976) studied the effects of pictures on the learning of biological sequences such as the water cycle and the oxygen cycle. He used pictorial flow diagrams, verbal flow diagrams, and text only. He found that the pictures did facilitate the learning of these verbal chains and concluded that this demonstrated that pictures can aid quite complex learning. More recently Reid et al (1986) used learning from complex biological pictures to compare the effects of different types of picture. They found that children perceived significantly more from photographs than from line drawings and from coloured than from monochrome pictures. At a similar level of complexity Royer and Cable (1976) examined the idea of transfer of abstract ideas from one written passage to another. They found that the addition of five pictures to the first passage did significantly improve this ability.

One way in which pictures seem to differ from words is in the amount and type of information that they contain. Indeed the commonsensical notion that a picture is worth a thousand words probably sprung directly from this observation. For example, if one compares the information available in the word 'shoe' with even a simple line picture of a shoe it is obvious that the picture gives additional information about the sort of shoe being described; it tells of the presence of some of the shoe's components (heel, toe, lace holes) it tells about the orientation of the shoe, and so on. When Brown

and Scott (1971) set out to study the differential recall effects of pictures and words they found that not only were the pictures remembered better in terms of the verbal equivalent, but a great deal more additional information was also remembered. It is not difficult to go beyond this sort of comparison to argue that pictures contain not only a greater amount of information but that it is of a kind which can only be conveyed by pictures. The subtleties of texture, relationships of form, tone, colour, and so on which are immediately available in a picture, are exceedingly difficult or impossible to capture in words. It can, therefore, be claimed that the presence of pictures in a verbal learning situation offers opportunities to extend and enrich the words and clothe them with situation-specific meanings. Arnheim (1974) makes the distinction between the sort of qualities mentioned above as the information specific to pictures and the ability of words to generate abstract, non-situation specific ideas. Hence, whilst one may facilitate the learning of the other it is important to appreciate that what is to be learned may be significantly different.

Are pictures or actual objects more effective?

Both words and pictures with their individual characteristics are surrogates for real objects and events. This suggests the question of whether pictures are better or worse than real things for facilitating learning. Becker et al (1971) looked at this question in relation to concept learning. They randomly assigned groups taught by pictures and by objects. Neither the rate of acquisition nor the amount of retention was affected differentially by the use of pictures or objects. However, when children were required to identify new instances of the concepts which they had acquired in different ways it became clear that those children who had learned through pictures were significantly more able to generalise than those who had learned through objects. Blaine (1982) supports the value of pictures rather than

objects in concept learning in two ways. First there are practical considerations:

To teach the vast majority of concrete concepts, it is simply not practical to consider using the number and variety of real objects that could be required.

(p. 19)

and second increased control, and the consequent reduction of distracting features. In this he agreed with Zeaman and House (1963) who valued the ability to reduce irrelevant or potentially distracting sources of stimuli. It may be significant that both of these studies are talking about handicapped children. Yet it was also the conclusion of Marks and Raymond (1951) and Devoe and Stern (1970), working with normal children. They concluded that objects have no advantage over pictures for concept learning, but they did detect a slight difference by which girls found a small advantage in objects. Another way of drawing comparisons between pictures and objects is in the way they may be used in classification tasks. Sigel et al (1966) found that fewer classifications were made with pictures than with objects when working with socially disadvantaged children. A similar experiment by Sigel and Olmstead (1970) found that pictures and objects were much the same for the purposes of naming them, but objects still seemed more effective for classification. A notable area of exception to the general findings that for recall objects and pictures are similar appears to be with mentally retarded children. Swanson and Watson (1976) and Swanson (1977) both found that mentally retarded subjects performed better on short-term tasks using objects rather than pictures. It is possible in this case to postulate differences in the development of picture perception for mentally retarded children. Yet, there exists work (De Graaf, 1972) to show that pictures can be used with a high degree of success in teaching mentally retarded children.

In summary it appears that pictures do facilitate aspects of learning including acquisition, retention and recall, concept formation and generalisation. At the same time pictures are distinguished from objects in such activities as classification. Within both of these age and mental ability are discernible as important variables. It also appears that pictures may assist learning by simply offering more or different information. This last is summed up by Duchastel and Waller (1979) who in their list of seven functions for illustrations in texts concentrate upon the 'enrichment' aspect of pictures. Their categories comprise: descriptive, expressive, constructional functional, logic-mathematical, algorithmic, and data-display. Not all of these might be strictly described as pictorial by the criteria of iconism identified earlier. However, at least the descriptive, constructional and functional categories all draw upon the notion of enrichment. They explain the descriptive in terms of showing what an object looks like thus giving an holistic impression of it which is difficult to achieve in words. The constructional function they describe in terms of explaining how various component parts of an object fit together, and the functional in the following terms:

The idea is to eliminate complexity in presentation, this time by enabling the learner to visually follow through the unfolding of a process or the organisation of a system. (p. 24)

Although they include the expressive function with those which they describe as explicative there is a crucial difference which is worth noticing. They describe it in the following way:

To make an impact on the reader beyond simple description. Pictures of war or famine victims add to the credibility of a purely verbal message. Even less emotive subjects can be treated in this way - to express the sheer scale of an industrial complex, or, conversely, the extraordinary, miniaturisation of integrated circuits. (p. 28)

This relates to affective factors in the viewer as opposed to our previous view of enrichment which was essentially concerned with providing additional information.

Are pictures more effective with some learners than others?

Review articles rarely make reference to differences between learners other than age, sex and broad cultural differences, but a number of individual studies do make the point that the learner's perception and cognitive strategies are important in the selection of instructional material (Voelker, 1973; Marcel and Barnard, 1979; Duckett, 1981; and Hughes and Hall, 1983).

Apart from the subtleties of variations in perceptual and cognitive style reported in the above studies there is the broader variable of differences in academic ability. For example, a number of studies have focussed upon the mentally retarded (Iscoe and Sernier, 1964; Tucker et al, 1973; Swanson and Watson, 1976; Swanson, 1977, Wacker and Berg, 1983), and seem to indicate that mentally retarded children find objects better for most learning purposes than pictures. Another group of studies (De Graaf, 1972; Luyben, 1973; Bender and Levin, 1978; and Baine, 1982) show that mentally retarded children can identify and do learn from pictures. Indeed it would appear that there is a preference for pictures over words which is stronger than for normal children in such activities as remembering information from stories, and vocabulary acquisition.

Other studies have looked at socially disadvantaged children often comparing their use of pictures in learning with that of middle class children. Sigel et al (1966) and Sigel and Olmstead (1970) compared disadvantaged and middle class children on their ability to classify using objects or pictures. They found that the disadvantaged children made significantly fewer classifications using pictures than objects, whereas the middle class children used both with equal facility. Conversely, Matz and Rohwer (1971) and Rohwer and Harris (1975) found that when the comparison was between picture and words for concept learning disadvantaged children did best when the stimulus was, at least in part, pictorial whereas middle class children did best with words alone. Baine (1982) sums up much of this work, showing that mentally retarded and disadvantaged children are similar, in that, for many types of learning, objects are preferred over pictures and pictures over words, as opposed to normal middle class children where words alone seem to be sufficient for simple learning tasks. He goes on to offer a particular sequence for the use of pictures for concept learning with the handicapped. Although the work cited above shows a distinct tendency for handicapped and disadvantaged pupils to benefit more from pictures as adjuncts to learning, than normal children, it is important to note that some specific types of disadvantage will also cause more difficulty with picture recognition, for example Misra and Shukla (1984) show that some types of deprivation interfered with pupils' recognition memory for pictures.

Less severe ability differences were examined by Downe (1979) in comparing upper and lower ability ranges in the mainstream school for the retention of sight words. He found that less able children benefit more from the presence of pictures than high ability children. Willows (1978) compared poor and normal readers finding that the poor readers seemed to benefit more from the presence of pictures in remembering words, irrespective of how difficult the words were.

One trend which all the above work seems to support is that children with special educational needs derive more advantage from pictorial approaches to instruction than normal children, notwithstanding that their picture perception development may be slower. This may be because they find greater difficulty in using words to represent their world. If this is so one might expect that young children whose vocabularies are limited might find similar benefits from learning through pictures. However, this is to set aside evidence that ability to perceive pictures seems to have developmental aspects.

How do pictures motivate pupils?

That pictures can and do appeal to affective variables, stimulating an emotional response apart from merely increasing our stock of knowledge of the world, suggests a range of associated functions. These would include both motivating to learn and reinforcing learning. Vernon (1950) divided her observations between 'the presentation of information' and 'effects upon attitudes', when she investigated the effect of pictures upon discussion of social issues with older children. She concluded that the most significant effect was an emotional one which heightened interest in certain parts of the passage. She goes on to state that in her opinion the main function of pictures may be to stimulate people to read things which they otherwise would not look at. Magne and Parknas (1963), Samuels et al (1974) and Reid et al (1986) also confirm the motivating value of pictures. A different sort of evidence comes from considering what are the intentions of illustrations in designing pictures for children's books. Blake (1981), talking about book illustration, makes it quite clear that although the information in his pictures is important, the overall objective of his illustration is an affective one - to stimulate the emotions of the reader,

mainly through humour, but other emotions too. The way in which children use illustrated picture books is also revealing. McAlpin (1980), Sinatra (1981) and Feldman (1981) all describe ways in which pictures can be used as motivators, and Aupecle (1978) claims that motivation is the principal value of pictures in the classroom.

Keifer (1983) used an ethnomethodological approach to observing how children relate to pictures in reading books in the infant school. She reports that the commonest way for children to decide upon a particular book was to leaf through looking at the pictures, and when they spoke to her about the pictures it was clear that the emotional impact of them was an important deciding factor. For the purpose of establishing the value of particular pictures as motivators it is necessary to consider the immediate emotional response of children; what they like. A good deal of work has been done on children's picture preferences and certain fairly clear indications have emerged. Campbell (1976) reviewed the work on picture preference to that time and drew up an impressive set of guidelines, which include both context variables and mode of representation. In terms of context he claimed that children prefer pictures which (a) contain depicted action and (b) contain people, places and incidents which are familiar.

The first of these is well supported by the work of Manzo and Legenza (1975) in terms of the amount of language which a picture will stimulate in children. In considering preference for style and type of picture Myatt and Carter (1979) pick up and generalise the same points as Campbell. First that most children prefer colour to black-white pictures, with Campbell's proviso that saturated colours are preferred over subtle tints and many colours to few. Second, together with Smerdon (1976), that most children prefer realistic pictures (in a mimetic sense) to abstract ones and the related preference of photographs to drawings. Third, that preferences in

relation to complexity are age related. That is to say younger children prefer simple pictures and older children prefer complex ones. They all point to a possible sex difference evident with young children which may indicate that line drawings are more acceptable to girls than boys over the infant years. A rather different aspect of preference was taken up by Weiss (1982) when she investigated children's responses to different arrangements of layout of words and pictures on the printed page. She found that for young children boys seemed to like pictures at the top of the page and girls preferred them at the bottom of the page.

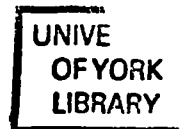
It is interesting that the sort of preferences reported above are not necessarily indicative of the most effective modes of representation for many of the sorts of learning reported earlier. Dwyer (1970, 1972), is supported by De Cecco (1974) in claiming that children's preference for different types of visuals were not indicative of their value as measured by criteria tests. This may tell us as much about the things tested as it does about the relative effectiveness of the pictures as aids to learning. At any event there appears to be a well-attested tension visible between the criteria one might employ for the selection of pictures as motivators or rewards and the criteria for their selection as facilitators of recall, concept formation, or the development of procedural knowledge.

The idea of pictures functioning as a reward for successful learning or performance is little covered by the research literature. However, Lloyd (1977) does report a method of vocabulary training in which selecting the correct responses to a series of word matching tasks leads to the child being rewarded with a picture. There is also a suggestion from Kiefer's (1983) observations that some children use reading books in such a way that turning the page to see the next picture before moving on to the text might be acting as a systematic reward.

Do children need to learn about pictures?

Up to this point we have considered pictures in terms of the way they can aid or facilitate various areas of learning, but one may wish to justify the use of pictures in the classroom on the grounds that they are a necessary medium for learning about pictures themselves. In which case it is necessary to justify learning about pictures as a worthwhile educational objective. Within that, it is possible to identify two important questions: first, is it necessary to learn about pictures in the instructional context, or is picture perception part and parcel of the development of general visual perception? Second, is the understanding of pictures a reasonable educational aim?

Kennedy (1974), in his influential work: *The Psychology of Picture Perception*, concluded that the balance of evidence suggested that the development of picture perception proceeded without the need for instruction, largely as a product of the development of general visual perception. However, there existed at that time, and has been uncovered since, a substantial body of evidence to suggest that at least some aspects of picture perception as distinct from general visual perception are gradually acquired over the course of childhood and even require direct instruction for their efficient acquisition.



That young children seem to understand different things from pictures than older children (Elkind et al, 1964; Hanes, 1973; Mandler and Robinson, 1978; Murphy and Wood, 1981), is well attested. These differences include the child's ability to understand more complex pictures (Mandler and Robinson, 1978; Beagles - Roos and Greenfield, 1979). There is also evidence that the ability to comprehend pictures which are fragmented, or have essential details missing, develops with age (Gollin, 1966), although

Murray and Szymczyk (1978) take issue with this on the grounds that it is the identification of distinctive features which varies rather than the child's ability to complete incomplete pictures. In this, they are supported by Ritchey (1982) who shows an increasing ability with age to remember details of pictures. One theory put forward to account for these differences by Vurpillot (1976) relates to the development of visual search skills. Mackworth (1967) and Olson (1970) show that search skills do increase with age, and Nesbit (1981) shows a clear correlation between search skills and the sort of learning in question. However, this cannot by itself be a sufficient explanation where picture perception is contrasted with perception of objects. Presumably a limitation of search skills would apply to both (Brown, 1981).

Another aspect of picture perception in which children seem to develop with age is in comprehending pictorial conventions. Friedman and Stephenson (1975) show this in relation to conventions for depicting motion in line drawings, Brown (1981) suggests that the understanding of the convention of representing objects by lines is itself subject to age variations over early childhood, and Constable et al (1987) show that even at eleven years most children are unable to fully comprehend conventions for showing a cut surface in science drawings. It appears that to some extent, at least, certain conventional aspects of pictorial representations are not fully developed in the pre-school years and extend over school life.

Sigel (1978) takes issue with the view which seems to be implicit in much work in the field that pictorial comprehension is principally to do with either the identification of objects within them or the understanding of pictorial conventions used to depict them, by proposing that the ability to grasp the 'dual meaning' of pictures is gradually acquired. By dual meaning Sigel refers to the picture having two realities, it is what it

depicts whilst at the same time being a set of marks on a two dimensional surface. A good deal of cross-cultural work seems to support this notion (Deregowski et al, 1972), as does the work of Paris and Mahoney (1974) when they demonstrate an increase with age in children's ability to grasp the relationship between picture and referent. Ninio and Bruner (1976) studied mother-infant dyads by analysing joint picture book reading, and although the study was intended to investigate lexical labels they report evidence of the gradual acceptance of the special visual properties of the picture - its representationalism - over the period from eight to eighteen months.

Cross-cultural work tends to support the view that picture perception is to some extent learned and separate from general visual perception. An impressive body of work has accumulated since Rivers (1904) first observed that tribesmen seemed to find pictures difficult to perceive. His general findings have been more or less supported by the more recent and reliable studies of Nadel (1939), Mundy-Casle (1966), Deregowski (1968), Nicholson and Seddon (1977) and Serpell (1979). That is to say that various aspects of pictures are not as comprehensible to more 'primitive' cultures as they are to Western populations. The point is given further emphasis by studies which compare similar populations who have received a Western style education and now appear to perceive pictures in the same way as European populations (Evans and Seddon, 1978). It appears that in as much as pictures have special properties, that they are not the same as the objects they depict, and that they cover a wide range of conventions and styles, there is some need for children to learn about them in order to fully comprehend them. It would also seem that some of their learning, at least, would take place across the early period of schooling. Olson et al (1980) and Goldsmith (1984) in reviewing the work on developmental patterns of picture perception each conclude that a wide range of skills are acquired over the period of infant schooling.

There seem to be sufficient indications from the work reported above that the skills of perceiving pictures are to some extent dependent upon schooling. The question remains whether an understanding of pictures is a sufficiently important activity to justify it as a major long-term aim in education. One justification may be found in the wealth of material reported earlier, and others (Levin and Berry, 1980; Downey, 1980; Rowell and Goodkind, 1983) which show how pictures support other classroom learning, where an understanding of pictures is essential before their facilitating benefit can be obtained. However, there are more fundamental justifications to be found too. Salomon (1974) in discussing the concept of visual literacy suggested that it could be usefully seen as a relation between external coding systems (media forms) and internal symbolic codes (mental imagery).

External coding systems that serve for communication purposes can be incorporated or internalised to serve in a representational capacity, and ... the codes, once internalised can be schematised (i.e., detached from their original context) and thus serve as schemes of thought (p. 402).

In this way the ability to perceive and interpret pictures is not only access to a language by which one will increase the flow of information, but also a way of thinking about all information. It increases the range of mental strategies. Support for this sort of notion which links perception, the culture, and abstract cognitive processes might be found in cross-cultural studies which examine differences in colour perception (Jacobson - Widding, 1980; Mangan, 1978; Pettersson, 1982). Such studies indicate that there are major differences in the perception, naming and use of colours in different cultures. Certainly one explanation of this could, in line with Salomon (1974), be that how one thinks about the world, the names one coins to account for it, and consequently the mental strategies which are available are subject to the range of perceptions open to one. It can also be seen that this would be a self-reinforcing system.

Gross (1973) comes at the same point from a slightly different angle. He focusses upon thinking as a multi-modal process, which leads him to recommend that school instruction should concentrate upon a wide range of physical, perceptual and cognitive skills. He claims that unless a child is exposed to modes other than the verbal his experience will be impoverished and inherently limited.

This idea of the complete person being a product of multi-modal perceptions is carried by Bruner and Olson (1973) into a more general cultural domain. They consider the ways (supported by Sigel, 1978, with his 'conservation of meaning' idea) in which the individual makes sense of his direct experience of the world. He must internalise the experience in symbolic terms and will go over experience to form symbols for its expression. Bruner and Olson refer to this process as 'deuteropraxis'. The range and flexibility of the deuteropraxis of any individual will be conditioned by the extent to which he is able to exercise levels of 'literacy' appropriate to the culture.

The term 'literacy' means the individual's ability to take the meaning from any particular mode of symbolism, and within any culture this would extend greatly beyond verbal symbolism. With this model the educational justification for learning about and via pictures is based upon the premise that the means of thinking about and expressing all experience is otherwise impoverished.

If it is accepted from the foregoing argument that learning about pictures is a worthwhile aim in the infant classroom it still remains to examine the extent to which deliberate instruction can achieve that end. A good deal of work exists to suggest that verbal learning can facilitate picture comprehension. Bacharach et al (1976), Carr et al (1977), Watkins and Graefe (1981), and Jong and Hornmann (1983) have shown that verbal labels

help both picture memory and recognition. In particular Wilgosh (1975) has shown this to be so for nursery children. Giannetti (1976) has developed ways in which the sequencing of pictures can aid their comprehension.

A more holistic picture instruction technique was developed by Higgins (1979). With it he was able to develop the picture interpretation strategies of children to the extent that they were able to draw more inferences from the pictures, but it fell short of helping the children to evaluate the inferences. In the same sort of vein Blot et al (1978) described a set of exercises originally designed for foreign children in the French educational system, involving brainstorming and classification of information which was intended to develop pictorial interpretation skills.

So far this discussion has centred around the direct facilitation of learning whether of pictures themselves or other things. It is clear, however, that pictures can and do take a less direct but no less important part in some classroom activities with young children. Testing, for example, of vocabulary, classification skills or basic concepts, is commonly based upon pictorial materials. In classrooms where the principles of educational guidance influence the teacher's aims the child's ability to learn about himself is taken as paramount. Lipsky (1971) and Entin (1979) both examine the value of pictures in self-examination and counselling types of activity. They conclude that pictures have a particular and valuable role in this process.

Can pictorial research be applied to the classroom?

One of the difficulties inherent in drawing together the results of research to inform educational decisions is that pictures themselves are extremely various and have proven difficult to categorise. Nevertheless, several

writers have attempted the task. Standing (1971), Levie and Dickie (1973) and Mandler and Johnson (1976) have all proposed various ways of categorising pictures for the purpose of selection and description in research. More directly related to the educational application of pictures is a taxonomy proposed by Fleming (1967) which is based upon the interaction between the analysis of pictures on a pictorial-verbal-design dimension and educational objectives. Sigel (1978) suggests a matrix with, in one axis the detail presented; the representational level; the spatial perspective, and in the other, themes depicted; organisation of elements; and complexity. Thus are generated nine cells in which individual pictures may be located. For some purposes such a system of categorising pictures would be fine, for others it would be of little value. For example, little is said about the content of the picture. By contrast with this Ashwin (1979) proposes an analytical framework which in its effort to identify 'style' in pictures concentrates almost entirely upon one of Sigel's areas namely 'Theme'. In doing so he discriminates Consistency, Gamut, Framing, Placement, Proxemic, Kinetic, Naturalism, as factors for which a picture might be separately 'scored'.

Some attempts to clarify pictures do so in a way which is less universal, but have more application to the teacher's selections. For example, Manzo and Legenza (1975) propose a way of scoring pictures for their value in stimulating children's language. Scores are allocated in terms of: number of different things, number of significant things, total number of things, number of different colours, number of actions, number of children, total number of people, total number of things with potential for movement, size of plate (the bigger the better) and empathy - the degree to which it is compatible with the children's interests. It is clear that this sort of list makes some contact with existing research, for example, the greater number of colours being preferred by children. But it disregards other

findings without explanation. Neither mode of representation nor level of realism get a mention. Bingham (1979) confines his pictorial analysis to three criteria for the selection of pictures which are to be used in helping reading. They are couched in terms of three areas for questioning:

1. Are the illustrations authentic and consistent with the text, and is the text accurately conveyed in the picture?
2. How many colours have been used and are they appropriate to the subject and mood of the story?
3. Has the artist created movement, rhythm and balance? How effectively is space used?

This seems to offer some help to the teacher in selecting pictures, although it is possible that the question of 'what sort of help with reading?' and 'what is meant by effective use of space?' might make the practical application difficult. Other writers who have proposed systematic approaches to selecting pictures for the classroom include Geist (1964), Halverson (1968), Legenza and Knafle (1978), and Sampson and Wescott (1983).

An attempt to view the picture selection process from the perspective of the class teacher was made by Orderindi (1975). He surveyed elementary schools, asking the teachers to select from a presented list of criteria for pictures. He generated a list of twenty criteria which covered most aspects of pictures, including physical and representational properties of the picture as well as indications of the functions for which it would be effective. He also suggests that the list's most effective use for individuals would require the establishment of a pictorial literacy level for the pupil concerned. However, as an accurate representation of the

teacher's perceptions it is weakened in that the source of the criteria was earlier research and not the teachers themselves. A similar and equally detailed system of classification for pictures in reading books is reported by Newton (1984), which could provide a basis for selection. Although Newton derives more data directly from the classroom than does Orderindi it is still largely informed by the existing literature.

A number of writers, Dwyer (1970); Standing (1971); Bingham (1979); and Blaine (1982), stress the relationship between the effectiveness of pictures in assisting learning and the educational intentions of the teacher. They point to two features. First, that the selection and and method of presentation of pictures for a particular educational task is to some degree specific to the precise conditions and educational objectives of the task, and second, that questions about the effectiveness of pictures in learning can only be meaningful when viewed in terms of the intended educational outcomes. This latter seems self-evident, but remains singularly unacknowledged in much of literature.

One facet of this shortcoming concerns the need to look at the value of pictures to learning in a more holistic way. Purves and Beach (1972) and Arnheim (1974) stress the holistic nature of learning in general and pictures in particular. The relationship between a child and the picture is an interactive one involving the child projecting into the picture as well as interpreting what is there. It is multi-modal activity in that in most instances verbal information, oral and written, is interacting with the pictorial information, and it influences both the cognitive and affective dimensions of the learner. Kiefer (1983) attempted to look at the whole process from the point of view of the learner. She demonstrated that the influences of the interaction with pictures can be both subtle and unexpected. For example, she discovered that aspects of pictures apparently

not understood or remembered appeared later almost subconsciously in the children's language. She also stressed the multi-functional aspects of pictures and is one of the few writers who consider the children's learning within the whole classroom context. In order to observe what sorts of learning do go on she locates it within a classroom ethos which largely reflects the intentions, and to a considerable degree the sorts of learning seen correspond with these intentions.

An holistic view of pictures and learning must inevitably consider not only the educational objectives but also the part played by the teacher or instructor. We may ask whether in the classroom setting an intention to influence short-term memory would normally be divorced from the intention to influence long-term memory, concept formation, and generalisation? Is it likely that there would be an intention to separate motivation from cognition or vocabulary acquisition from comprehension? Whatever the answers to these questions it would not suggest that studies based upon the process of identifying narrow variables had no value to practical classroom activity. Yet it might be claimed that with a substantial, albeit not comprehensive, body of analytical work available the time is right for a change of emphasis to synthesis. In this case the teacher's part in the process must not only be acknowledged but become the subject of detailed investigation in its own right. The sort of educational objectives which teachers have for pictures might thus become a rich source of information for future research in the 'laboratory'.

Summary

Much of the work on pictures as facilitators of learning has focussed upon memory. That pictures do, in most situations, aid the memory of other material is well supported. Similarly that pictures are themselves more

memorable than words is equally well established. This picture superiority in recall is one of the principal empirical factors informing theoretical models of picture and word processing. These vary from those which postulate separate coding for pictures and words to those in which either modality relates to a common abstract coding.

Pictures are shown to be effective facilitators for most kinds of learning: concept formation, procedural knowledge, classification, generalisation and vocabulary acquisition. The last is subject to the reservation that in practice pictures may act as distractors when the objective is the acquisition of new sight words. The main variables producing differences are age and mental ability. Whilst young children are seen to benefit by the presence of pictures in most learning tasks there also seem to be limitations relating to their systematic use of pictures and levels of complexity. Some writers relate these to the development of appropriate search and scanning skills. A preference of pictures over words and ultimately objects over pictures seems to be evident with regard to the gradient of mental ability. This observation seems to be consistent with a Brunerian conception of mental ability as facility in operating within a symbolic framework.

Most writers acknowledge the part which pictures can play as motivators. In particular pictures are accepted as an effective way of generating and sustaining interest in both spoken and written words. Some writers, however, have seen the motivating value of pictures as wider than a stimulation to read stories, but few have explored the use of pictures as reinforcers of learning.

Children's preferences for different types of picture are well explored in the literature and a number of common features emerge which permit some

generalisation. Children of all ages seem to prefer realistic (mimetic) to abstract pictures although there is some reduction of this trend with age. Many and strong colours are preferred to few and soft colours. Pictures containing easily identifiable events and actions are preferred to more ambiguous subjects. Some writers suggest some variation in preference by sex, however, this remains a matter for further exploration.

The weight of evidence suggests that picture perception skills are subject to development through learning, if not through direct instruction at least through exposure. There are three detectable areas of development in this respect. In the earliest years the ability to accept the representational function of the picture as separate from its existence as a set of marks on paper is acquired. Over a considerably longer period there is a development of the child's ability to deal with increasingly complex pictorial material, and to see events and interactions in pictures in an holistic way. Finally, there is a gradual development in the child's ability to understand some of the conventions of representation which extends over at least the primary years for most children.

The development of pictorial perceptual skills need not be thought of as the only, or even the main reason for the presence of a substantial pictorial component in schooling. Many writers are at pains to point out that pictures are a characteristic way of reporting the world as an intrinsic part of our culture. In as much as education is about acquiring the culture, pictures with all their complexities of style and function are an inextricable part of it. They may for this purpose be regarded as a form of language with a corresponding need for literacy on the part of the pupils.

Almost all of the work reported adopts an analytic approach, defining the learning task in a way which permits a high level of comparison between

findings. Such an approach, whilst entirely necessary for the construction and exploration of cognitive models, is difficult to apply to the multi-variate learning conditions of the classroom. These difficulties arise from two sources. First, the synthesis of the findings such that they can influence the decision-making process, where learning intentions are complex and multiple, and the outcomes for a single learning sequence may occur at many levels and degrees of specificity. Second, and perhaps more important, most research is not informed by how pictures are presently used in the classroom, nor what educational objectives teachers normally attach to them.

Although some writers do consider the related question of how and why pictures are used in school, this is most commonly done at a speculative level, and proceeds upon the basis of commonsense assumptions. It is not difficult to argue that more precise information on this would be of value to psychological research. In this area the communication between research and the schools is largely a one-way traffic, if it exists at all. If perceptual research is to have application in practical education, it may be necessary to centre more of it on questions which arise from practice, by first making practice itself the concern of psychological experiment. Kiefer (1983) has made a start with her work on the ways in which children relate to pictures in books in the classroom setting. What remains a priority is a similar holistic approach to the relationship between teachers and pictures. Answers may be sought to such questions as, on what basis are pictures selected for particular learning objectives?, how does the presentation vary with type of picture and learning intentions?, and what are the teacher's expectations of pictures?

In short, with a matrix of variables in which type of picture, educational intentions, form of presentation, and learner characteristics are

interdependent, it is of crucial importance to identify the connections and patterns between them which already exist in the minds of teachers. In this way an understanding of practice can illuminate further research.

CHAPTER TWO

RATIONALE, AIMS AND STRUCTURE OF THE STUDY

As the previous chapter has shown, a considerable body of research exists about pictures and learning, and much of this is in a form which on the face of it is of potential use to teachers. Two main types of information are provided by the research. First, information about the capacity of children to understand pictures and characteristic patterns of the development of pictorial literacy. Second, information on the ways in which pictures facilitate learning, where some of the work comes in a prescriptive form ostensibly tailored to the needs of the classroom. Clearly the second of these might be used by the teachers very directly, by merely implementing the suggestions. The first is somewhat less direct, but nonetheless applicable. Teachers might apply the information on the development of pictorial literacy by recognising the developmental pattern within the curriculum. The intention here is not to suggest that some prescription exists for the successful application of research to practice, but merely to establish that at least some aspects of existing research are applicable, however it may be done. That being the case one may ask whether, generally speaking, it is done.

The impact of research on practice

Direct evidence of the impact of research upon practice in this specific area is not easy to come by, but one possible source is to be found in those accounts of practice in the early years of schooling which have become available in recent years, such as Marsh (1973), King (1978), Berlak and Berlak (1981), and Stewart (1986).

An examination of such accounts reveals that few references are made to how or why teachers use pictures in the classroom, and those that there are take the value of pictures as unproblematic. No references could be found to teachers being aware of any developmental need in respect of picture perception. It may well be argued that this does not demonstrate that none was present, even highly visible, since the writers do not set out to produce universal accounts of all the happenings in the classrooms. However ethnographic the methods used by these writers, they would find it necessary to narrow upon particular events to observe and record, and no aspects of pictures may have happened to be included. Yet this is to some extent significant in itself since the teacher's concern for other sorts of development receives considerable attention.

Another source of evidence is what might be termed the intermediate dissemination literature. That is to say those books which set out to directly inform teachers of 'good' classroom practices, acting as agents between the research community and the teacher. Teachers commonly meet such books in the context of initial and post-experience training courses. Although the use of pictorial material figures little in the more general type, there are examples of this sort of book directed to audio-visual aids in which pictures often receive significant attention, and a few specified to pictures alone. Wittich and Schuller (1962), Cable (1965) and Gordon (1986) are examples of the first - audio-visual manuals with some mention of pictures - and Summer (1950) and Williams (1963) are examples of the second - those mainly specified to good practice with pictures. In the case of the audio-visual manuals the information which they offer to the teacher is in the nature of prescriptions for picture use which are largely concerned with the nuts and bolts of presentation, and neither make overt reference to, nor appear to be informed, by the findings of research. In those specified to good practice with pictures some mention is made of research findings.

Summer (1950) refers to developmental aspects but confines the remarks almost entirely to the physical aspects of sight:

Young children's eyes do not possess the acuity of vision which will develop later. (p.23)

There is some recognition of perceptual processes in that mention is made of the need to 'help the figure emerge from the grounds'. In fairness we must note the early date of the book which precedes much of the research quoted in the previous chapter. Williams (1963) also makes scant reference to research contenting herself with the comment that:

The ability to read pictures varies with the individual's imagination, his skill in conceptualising and generalising, and his previous experience in interpreting pictures. (p.22)

and on that basis includes 'suitability to the picture reading ability of the learner' as one of the seven characteristics of good instructional pictures. In short those books which may be expected to act as intermediaries in the diffusion of research results do not appear to inform the reader of many of the crucial issues and findings which one might expect to impact upon the classroom. This is, of course, not evidence that research does not influence classroom practice, but is an indication that in this area one of the general ways in which teachers are informed does not operate as a mechanism of dissemination or draw upon research as one might expect. Another way of examining this issue is to move away from the specific case of pictures in education to explore the relationship between research and practice in education in general.

Becker (1980) comments on the relationship in the following way:

It must be acknowledged at the outset that very little of educational research that is done appears to have any noticeable impact on the ordinary teacher and his work. (p.64)

This is by no means a new claim: educationists and educational researchers have identified and addressed themselves to the problem for some considerable time. Results of this endeavour are evident on a number of fronts, not least the nature of educational research itself. Boeplan and Biklen (1982) write:

A field once dominated by measurement, operationalised definitions, variables, and empirical fact, has had to make room for a research approach gaining in popularity, one that emphasises inductive analysis, description, and the study of peoples' perceptions. (p.13)

In short, the desire to make research more relevant to the practitioner has led to the production of more qualitative methods which have a more phenomenological base and endeavour to answer broader and more holistic questions. This move is not without its problems, the most notable being objections to the validity of phenomenological methods. Borg (1981) comments:

The most important (disadvantage) is that the adaptability gained by the interpersonal situation leads to subjectivity and possible bias. (p.87)

Nonetheless, it seems fair to claim that these new approaches to research do have more practical relevance to the ordinary teacher, and are beginning to demonstrate this by changing some aspects of schooling. It is, however, the contention of the writer that this is happening in an uneven way with some areas of educational practice being more resistant than others. For example, whilst investigation into educational management appears to have been profoundly influenced, investigation into child development seems to have been less so. This may well be simply that the emphasis has been directed to the most neglected, or previously most distanced areas, with the consequence that the traditional concerns of psychological research have received less attention. It may also be that it is easier, or more necessary, to ask questions which lend themselves to a phenomenological approach in some areas rather than others.

The present study is in an area traditionally served by psychological research, picture perception and learning theory, but has connotations related to teaching method, which is an area that was quick to adopt new research approaches. The review of research which supports or relates to the effective use of pictures in the early years of schooling revealed some features which can probably be regarded as typical. The great majority of the work is both esoteric and analytical. That is to say, it refers to highly specific facets of learning which divide the subject so finely that it is difficult to see how the information produced could be used in a busy classroom. For example, pictures may be shown to help paired associated learning more when they are shown together with the words. The findings relate only to the specific conditions of the experiment and whilst they are valuable in examining theories of cognition they are of little practical value to planning learning in the classroom.

However, not all the work is of this theoretical sort, and some sets out to generalise and abstract from the above to deliberately come to conclusions which have professional relevance. For example, a study might take a question such as do pictures help in the acquisition of early sight vocabulary, or do they mainly distract attention from the task? Such studies often arrive at very clear, and ostensibly perfectly useable conclusions. Yet it may be that in spite of the clarity of the question and answer, the value to practitioners is small because it is not a question which they themselves would ask. At one level, it seems perfectly easy for the teacher to apply such findings, if they want to, say by varying their selection of initial reading books. Yet to do so would mean the teacher making a decision about other aspects of the reading process not covered by the question asked in the study: motivation, developing an holistic grasp of semantic qualities of a word, and so on. Hence, it seems reasonable that even the most directly prescriptive of studies may be oblique to the teacher's needs.

There is a limited amount of work which could contribute to resolving this dilemma by asking teachers about their opinions and professional needs. Even here there is a difficulty because most of the studies which do this begin from the researcher's perspective in framing the choices offered for selection. Commonly, a schedule, which might be about the features of pictures which are educationally valuable, is offered to a large sample of teachers and the responses scored. The schedule itself, however, normally springs from the researcher's perspective, informed by the existing literature of what are the critical issues.

Two sorts of enquiry which might contribute to the greater application of research are largely absent. First, work which attempts to gain insights into the priorities which practitioners have in relation to pictures and learning. Second, work which observes and analyses existing practice in the use of pictures in the classroom. There are one or two notable exceptions to this, most significantly the work of Keifer (1983), who used participant observation techniques to explore and describe the ways in which young children use pictures in their reading books.

Up to this point, the assumption has been made that the practitioner or user is solely the teacher, but this is clearly untrue in that one might also identify publishers, illustrators, text designers and educational policy makers as clients. Here again there is some indication that research does not impact to the extent that at least its originators might wish.

Dockrell (1980) writes:

There is evidence of considerable disillusion among officials and politicians about the traditional claim of educational research to make a contribution to policy decisions. (p.17)

There are two ways of reading research, for the increase of knowledge or as a guide to action. The preponderance of evidence is that the second of these is significantly less fulfilled than the first, especially with regard to influencing practical teaching decisions. The claim is that the application of research results to the classroom is slow, if detectable at all, and that teachers do not normally look to the research community as a direct source of information to help in making decisions about effective curricula or teaching strategies.

Several possibilities suggest themselves to account for this failure of research to reach the classroom. For example, the mechanism of dissemination may be the culprit. By and large, teachers do not read research reports and journals. This may suggest that different sorts of journal are appropriate and there is some indication that changes in this respect are occurring. Other traditional routes for dissemination include in-service education and the advisory service, and here again changes are evident at this time, some of which may influence their efficiency as disseminators of relevant research.

More fundamental is the possibility that the sort of questions which research addresses itself to are simply not directly relevant to teachers. This uncovers a dialogue in which one side argues that it is right and proper that research should concern itself with those areas of learning which are open to an analytical approach that allows traditional variable control. The argument proceeds that this permits results which are clear, if narrow, but can be of direct application to the development of learning theories, which in turn might influence the professional practice of teachers. This is indeed the established position, but critics such as Becker (1980) suggest that the use of an agricultural/botanical model of research design does not serve education as well as it seems to serve other

areas of human endeavour and that the time has come to involve the practitioner to a greater extent. It is also possible, if not likely, that some of the questions of interest to teachers are too complex or subjective for direct scientific investigation. This is, however, a matter of conjecture for it seems apparent that, at least in the area of pictorial literacy, little effort has been devoted to discovering them. This suggests that the first step of researching into the sort of questions which teachers consider important might be accompanied by an attempt to bring teachers into the process of how they might be answered: the research methodology itself. In short, a concerted attempt to re-orient research in pictures and learning in line with the practitioner's perspective would not only involve discovering the concerns and priorities of teachers, in order to uncover productive areas for investigation, but also begin at a point where the teachers were involved in decisions about how such information might be collected. Teachers' intimate knowledge of the whole context of the classroom must be of value to the question of how teacher values and priorities might be sought. For this is likely to be a difficult process in itself, since simple and direct questioning - 'What do you need to know about pictures and learning?' - is certain to be doomed to failure. In effect, the teacher has no choice but to respond with - 'What are the options?'

Much of what constitutes teaching is spontaneous and intuitive, the product of experience, and a deep seated craft knowledge that is not open to easy analysis or articulation by the teacher. A demand for the teacher to state those elements of the teaching process which are critical, or pivotal, is unlikely in that crude state to be met. There is a considerable difference between effectively performing any task and being able to analyse it, in particular, to analyse it in such a way that it is laid open to systematic investigation. It is yet a further step to be able to express it with

clarity. Consequently, if teachers are to articulate those aspects of their practice that have direct implications for research, direct questioning will be insufficient, and other strategies must be found.

This is further complicated by the existence of orthodoxies: received wisdom that this or that ought to be important. Teachers, in common with other professional groups, operate within a framework of accepted values. These are, to some extent, handed down from heads, advisers, training institutions and H.M.I. The value of, and appropriate uses for, pictures in the classroom does not escape this, and the existence of such orthodoxies is likely to influence the responses of teachers.

All this tends to suggest that an oblique rather than direct approach to questioning teacher opinion is appropriate. In addition, it must be sufficiently explanatory to permit teachers to arrive at, and articulate, significant aspects of their practice with, and opinions about, pictures and learning. This, in turn, implies being able to go beyond responses inhibited by the received wisdom, and the development of some common terminology between the teacher and the researcher.

To summarise the argument so far: there is a general belief that educational research does not have the impact upon practice which is felt appropriate, and that psychological research into pictures and learning seems to have less effect than most. Two major reasons are suggested to account for this. First the nature of traditional experimental research focusses it upon areas which more readily inform theory than practice, and second whatever research methods are applied they usually address questions which arise from existing theory rather than practice. This suggests that at least part of the remedy lies in better informing psychological research of those questions which arise in practice. This is seen as a difficult

process, mainly because such questions are not only likely to be complex, but also difficult to access by the nature of practical teaching.

The review of the literature shows that little work of this sort presently exists. On the one hand there is work which seeks teachers' opinions about pictures in the classroom, or proposes specific techniques for educational uses of pictures, but most of this originates in the researcher's preconceptions, not in any separate consideration of what is important to classrooms and teaching. On the other hand there is a substantial and growing body of work which attempts to illuminate practice in classrooms, but up to this time it does not appear to touch upon issues of pictures and learning to any useable extent.

The present study aims to go some way towards supplying the deficiency by focussing upon professional practice with a view to revealing questions about pictures and learning which are important to teachers, but which at the same time are capable of informing research. As it stands this is too broad an intention to form the basis of operationalisation, and will require some degree of 'unpacking' and specification. The reference to professional practice can be taken to mean the entirety of the school's relationship with pictures and as such would not provide a sufficiently sharp focus to be useful. Within this, however, it is possible to identify the two specific areas of how pictures are valued, and how they are used to bring about learning, as issues which are in line with the generality of questions normally addressed by psychological research in the area, and where information on classroom practice and teachers' views can hardly fail to be valuable.

A useable account of these will necessarily involve setting them in a wider context which will include some view of the values held about pictures by

teachers, the influences which operate upon their decisions about them, and some broader view of the pictorial climate of the school. It will also seek to clarify the relationship between the use of pictures and general features of teaching and learning. That is to say that different ways of using pictures will be influenced by the milieu and ethos in which they occur. Hence teachers' intentions as well as their actions, and the correspondence between them, will need to be addressed.

It is also important during the course of the study to gather evidence wherever possible on the initial premises about research and practice, to support, and if possible clarify, the justification for the study. Therefore, part of the aim of the study is to test the hypothesis that research in the area does not impact significantly upon the classroom, by seeking instances of the converse and analysing teachers' opinion and actions with this in mind. Although this is secondary to the intention to illuminate practice it is nonetheless an important aspect of the work because of the part it will play in the evaluation of the whole study.

Aims of the study

The major aims of the study may therefore be stated under three headings:

1. To illuminate the values and beliefs which teachers hold about pictures in teaching

This will necessarily include aspects of preference and understanding about pictures by the teachers and their views on the understanding of pupils, as well as the place that pictures occupy in relation to other learning materials. A clearer understanding of the criteria which teachers use for the selection of educational pictures will be a possible outcome of this.

2. To explore the classroom uses for pictures as they occur in practice

This will involve not only uncovering characteristic patterns of use, but also relating these to teachers' intentions in the context of their beliefs about the educational ends which they can serve and broader aspects of teaching style.

3. To investigate the extent to which practice is influenced by research in the area

This will involve not only noting the extent to which the influence is in evidence, but also the means by which such influence makes itself felt.

The structure of the study

The rationale for the study requires that as far as possible it should be informed by the teacher's perspective. This means that it should not only begin from a position of information in this respect, but that the structure should be such as to allow what emerges to colour subsequent stages throughout the course of the study. That is to say whilst the aims remain constant the precise means of addressing them is modified by the experience of earlier stages. This format is relatively common where research has largely explanatory aims. It amounts to a degree of reflexivity much in line with what Cronbach (1982) has in mind when he talks about 'emergent' forms of evaluation. This has an implication for the present description of the structure of the study, in that notwithstanding its position in the report it is partly an account of how things turned out, not only a statement of what was preconceived.

The study is in three parts or stages in which each employs different techniques of data collection, which might at one level be regarded as largely independent studies about a single theme, but in practice their interdependence is greater than this suggests, and a more realistic view is that they are essential parts of one study. Earlier stages deliberately inform later stages and later stages are equally deliberately concerned to confirm or extend earlier stages.

The process may be characterised as one which begins with a sensitising study designed to provide information for the second stage: a survey which may be seen as the focus of the whole study. This in turn is followed by a stage designed to complement the survey by testing its methodology and adding qualitative flesh to the quantitative bones of its results.

Stage 1 - The exploratory group

It is traditional for studies to begin with an exploratory or sensitising stage (Travers, 1978). However, this forms a greater part of the present study than is normal, because of the importance attached to beginning from and employing teachers' perspectives throughout the study. The exploratory group is composed of infant teachers and employs a systematic form of discussion focussed upon their expectations for pictures as learning aids, the sort of purposes for which they employ them, the range of criteria which they use in the selection of them, and their beliefs about the children's understanding of them.

The part played by the researcher is to act as a facilitator by introducing ideas taken from work in the field, by providing examples of techniques which have proven useful in similar explorations, by recording the outcome of the discussions, and by collating the ideas produced and reformulating them into a framework for the survey.

The main objectives of this stage are:

- (a) to arrive at an agreed terminology.
- (b) to agree on ways of identifying, analysing and stating the teachers' educational objectives for pictures.
- (c) to identify ways in which meaningful data can be obtained from other teachers.
- (d) to identify issues, concerns and opinions which will form the focus of subsequent stages of the study.

Stage 2 - The questionnaire survey

This is a survey of infant teachers and headteachers, in two LEAs, intended to elicit their opinions on the value of pictures to education and descriptions of how they are used in the classroom.

It may be regarded as the main part of the whole study in that whilst the exploratory group and school examples generate a certain amount of independent data they are primarily intended to support the questionnaire survey. The content of the questionnaire arises mainly from the exploratory group, and as well as a range of independent variables designed to identify significant subgroups within the sample (see Nisbet and Watt, 1984) has sections which examine the uses for pictures in the classroom, the contribution of pictures to development, the teacher's general dependence upon pictures, the teacher's preference for pictures, methods of storage and retrieval, wall displays, children's understanding of pictures, the significance of teacher-made pictures, pictures in beginning reading books, and the place of pictures for children with special educational needs.

Stage 3 - The school examples

In effect these are a series of mini case studies of schools and classrooms. They involve interviews and observations of school and classroom environments as well as specific teaching episodes. The precise focus of the school examples is influenced by the initial analysis of the questionnaire survey data, and includes checking out aspects of its validity. The teacher examples address issues, including contradictions and dilemmas, arising from the questionnaire survey so as to clarify or explore them. These can be grouped under three major headings as follows:

1. Classroom Uses for Pictures - touching upon ways of describing the function of pictures, the areas of learning and development which they serve, ways of categorising the educational uses for pictures, and the particular place occupied by pictures in providing for pupils with special educational needs.
2. Display - in terms of its organisation, function and perceived value, ways of describing displays, and their impact upon the learning environment. This is justified as a separate area for examination by the emphasis placed upon it by the results of both the exploratory group and the questionnaire survey.
3. The Pictorial Climate - which is taken to comprise teachers' preferences for pictures, their perception of children's understanding of pictures, aspects of general teaching approach, and the institutional context as it influences all of these.

The decision to make the survey the main focus of the whole study springs from the intention to address the results principally to the

research community. The value of the conclusions will be largely conditioned by the extent to which they are generalisable to a wider, although similar, population. Whilst there are those who point to the generalisability of interpretative approaches (Hamilton, 1981), it remains true that this more easily achievable via the survey with its emphasis upon normative and quantifiable data. However, there is no reason why this should detract from the value of the other stages which are intended to complement that data by extending and deepening its meaning. Taken as a whole the methodology of the study is eclectic in that while centering upon a traditional normative research technique it draws upon approaches which are more interpretive in flavour. The current climate of opinion (Hargreaves, 1980; Cohen and Manion, 1981; Boeplan and Biklen, 1982) considers the combination of approaches to be productive, and earlier more compartmentalised views of appropriate methods for educational research have lost ground. In this instance the combination seems especially appropriate to the aims in as much as they are directed towards producing generalisable conclusions from complex and far reaching questions.

CHAPTER THREE

THE EXPLORATORY GROUP

The aims of the study require that as far as possible the form of data, its methods of collection, and its interpretation be informed by the teacher's perspective. For this reason the sensitising stage of the study assumed a particular importance in that from the outset the direct concerns of the teachers were to be the means by which subsequent stages were shaped. The first step was quite informal and concerned only to form impressions in an unstructured way. This involved visiting and spending time in a number of schools, where beyond paying particular attention to pictorial aspects of the environment and talking to teachers about them, no structure was imposed. This provided the researcher with a battery of general impressions which at a later time would begin to crystallise into areas of enquiry.

The process of moving from this impressionistic position to the formulation of a framework for enquiry is commonly done by the researcher merely bringing together such impressions with his knowledge of state of the art in the research area and allowing testable hunches to emerge. This would not have been sufficient in the present study in that the process depends too heavily upon the received wisdom of existing research, which left to itself would be quite likely to dominate the decisions. Some intermediate stage which enabled the teacher's perspective to play a greater part in formulating the whole study was necessary.

What was required was some process which would primarily enable the researcher to gain insights into the practices and opinions of teachers, especially in identifying patterns of agreement and disagreement. In order to achieve this the process must help the teachers concerned to analyse and articulate their experience and opinions, rather than presuming these to be available and easily accessible. In addition it must provide teachers with the confidence to detach themselves from the existing rhetoric where it is at variance with their individual beliefs, and in doing so enable the teachers and researcher to develop some degree of common terminology. Finally, to draw upon the classroom perspective to the fullest extent, the process must enable the teachers' experience to bear upon the question of effective ways of collecting data, as well as pointing to the subject of the data to be collected.

Whilst the general flavour of these requirements suggested some form of group discussion the precise form that the discussion would take was still in question. Watts and Ebbutt (1987) describe an approach to data collection based upon the group interview that could partially meet most of these requirements, but would not help teachers to detach from the rhetoric or contribute to research method. Similarly the Delphi technique (Lyon, 1982) contained elements which would be valuable to the present study, but did not satisfy completely. Many pilot studies which use discussion groups opt for a non-directed form of discussion and from the resultant exchange extract the information which is valuable to the study. However, this presumes that the hypotheses of the study are established and the discussion is a way of making final modifications. In the present case the discussion was to play a more central role in formulating the whole study. The intention of this stage was to find out how to examine the practice of teachers and what would be useful things to look for. Moreover, there was no intention to continue to use such a group for the collection of the main

data, no matter how successful it might be. The purpose of the group was not to test the research method but to arrive at conclusions that would suggest one which could be applied to a larger sample.

These requirements led to the identification of the three main features for the form of the discussion. First, the agenda would be spiral. That is to say, there would be frequent opportunity to return to a topic. Second, there would be occasional inputs from the researcher, to test issues which originated from research and theory against the practice of the teachers, and also to explore differences in terminology. Third, there needed to be opportunities over the course of the discussions for teachers to reflect on their practice and feed the results of that reflection into the discussion in a controlled way. What follows is an account of the technique which was developed in order to satisfy these, and some indication of the way in which the initial meetings of the group were the vehicle for crystallising the technique.

The term 'exploratory group' has been selected since neither 'discussion group' which has looser connotations, nor 'pilot group' which is normally used to denote a situation where a research methodology is being tested rather than generated, described what was going on. The term exploratory more accurately captures the flavour of the group's intentions.

Group membership and timing

The group was initially composed of two teachers from each of six randomly selected infant schools, or departments. The reason for pairs was to enable teachers to talk to each other between meetings to explore the issues raised. In the event, one of the larger schools exceeded their quota and provided three teachers, but this presented no difficulty. The total group

strength of twelve was chosen because it seemed large enough to be as representative a sample as possible, whilst being small enough to allow free discussion. As it occurred, the group was to enlarge, not only with the addition of the third teacher already referred to, but with the addition of two nursery school teachers which the group themselves felt made them more representative.

The number of times the group was to meet was initially left open at between three and six. In fact, there were five meetings each of about two hours duration.

Agenda and activities

A pattern of procedure rapidly developed over the first couple of sessions, and became the norm of subsequent meetings. In the first meeting, (see Appendix page 5) after a brief introduction of the purpose, the group were invited to recall, and jot down in note form, a recent occasion when a picture was used in a learning episode. They were asked to use the following framework:-

- (a) What were the intentions of the learning episode?
- (b) Why was a picture used?
- (c) How was the picture chosen?
- (d) How was it presented to the children?
- (e) How effective did they now feel it was in terms of the original intentions (a)?
- (f) How did they arrive at the evaluation above (e)?

Part of the point of this activity was to establish, from the start, that the group would normally try to work from direct reference to practice

rather than unlocated opinion, and conversely, when opinion was given there would be an expectation that it would be at least illustrated, if not necessarily justified, by practice. For examples of what was written see Appendix, pages 14 and 15.

When the activity was completed, each teacher in turn, presented their instance and discussed it with the group. Several crucial issues emerged from this exercise which were to continue as a nexus of ideas for exploration in later meetings. Among them were issues which would lead to an exploration of children's development of the understanding of pictures, and issues which would lead into questioning the function of pictures in classroom learning.

The first of these touched on the difficulty of articulating practice and problems of observing one's own practice. The second centred on the question of identifying a pattern of development and the extent to which pictures were effective communicators at pre-reading stages. The third raised the questions of the range of functions which may exist simultaneously for a picture in a learning episode, the value of pictures as stimulators of discussion, and the extent to which there was a top-down influence to use pictures. At the end of the meeting teachers were asked to undertake two tasks and report them in a written, note form at the next meeting. These were first, to repeat the observation task which they had given from memory in the meeting, but this time reporting intentions before and evaluations after the episode (see Appendix page 16 for examples), and second, to list the sources of pictures which they used in school. The meeting was reported in the form of extended minutes which were circulated to each group member, with an invitation to comment on their accuracy (see Appendix page 8).

In this way, the broad approach was set for the remainder of the meetings as follows:-

1. Work systematically through the report of the previous meeting, discussing each point and allowing it to move to related issues.
2. Collect and discuss the written notes produced by teachers between meetings.
3. Set another inter-meeting task.

An important feature of this way of working was that it allowed all issues to be re-visited as often as the group, or individual members, wished to do so. Hence, ideas could be re-explored when the group members had had time to think and talk about them between meetings and perhaps made further observations back at school. Some issues, even matters of considerable detail, were aired at every meeting, others would surface and after a brief review be passed over.

It would be misleading to suggest that control of this process was solely in the hands of the teachers. The researcher took an active part in the discussion and undoubtedly influenced the course of meetings. This participation was mainly of two sorts:-

1. Making reference to research, with the intention of gauging the teachers' reactions to it, but only where such references were appropriate to the direction of the discussion as determined by the teachers.
2. Attempting to ensure that no significant aspect of a point was passed over without mention.

Recording the meetings

With this 'spiral agenda' method of developing the discussion the accuracy of the reports of the meetings was crucial, since they would be the main vehicle of progress. Tape recording was considered, tried, and subsequently rejected on three grounds.

1. Some teachers said that they found it inhibiting, and declared that they would speak more freely if the discussion was not recorded.
2. A heavy dependence upon taped or verbatim transcript accounts could lead to undervaluing the non-verbal aspects of the discussion thus running the risk of misreporting the real feeling of the group.
3. In a basically informal group, where on occasions several people might talk at once, there were technical difficulties in tape recording, not only in deciding who was talking, but also in comprehending some of the speech, even though the highest quality of equipment was used in the trial.

It was decided, in the absence of tape recordings, that the most accurate and objective account could be obtained by making two sets of notes from differing perspectives, participant and non-participant. These could be compared for the amount of agreement shown. The researcher who was acting as a group member made somewhat brief notes, and a colleague selected on the basis of experience in observation took on the role of non-participant observer, making a considerably fuller account. Subsequently, these were compared by careful examination for three points of agreement. These were, that main comments were included, that they received appropriate emphasis, and that they were correctly attributed.

No major differences emerged as a result of this examination. There was, of course, some omitted detail from the account written by the participant observer, because of the comparative brevity of his report, but this did not amount to significant disagreement on any point. The report, which was sent to group members, was written by the researcher and agreed by the non-participant observer. Teachers were encouraged to be severely critical about the accuracy of the reports, by making both written and spoken comments. Yet, apart from a few instances of incorrect attribution of comments, no criticisms were made.

Inter-meeting activities

The note making which teachers were asked to do between meetings was considered an important aspect of the whole activity. It enabled teachers to reflect at their leisure on particular issues which had arisen in the more interactive situation of the group discussions. It also enabled them to refer directly to observations of the classroom and individual children in making a statement or offering an opinion. From time to time, the activities called for the collection of information and 'paired members' were encouraged to work together on this. In short, the inter-meeting activities not only permitted the collection of detailed data, but also facilitated teachers' reflection upon issues. The topics on which teachers were asked to make notes were as follows:-

- (a) A record of a teaching/learning episode which used a picture. Notes being made on the learning intentions, criteria for the selection of the picture, details of presentation, effectiveness in terms of the above intentions, and means of evaluating this.

- (b) A list of the sources of pictures used by the teacher.
- (c) Notes on the storage and retrieval systems used for pictures by the teacher and by the school.
- (d) A list of the important features of wall display for the purpose of describing and evaluating them.
- (e) A list of how pictures were used in different learning contexts in the teachers' classes.
- (f) A list of the sorts of learning or areas of child development to which pictures contribute. (For examples of each of these see Appendix page 14 to page 23)

Results

The group met on six occasions over a period of three months. Five of these meetings followed the process outlined above and the sixth was specifically related to the initial piloting of the questionnaire form.

The sort of information which came from these sessions was extremely rich and varied, comprising indications of teachers' priorities, statements of the resource frameworks in which they operate: fact, values, and opinions. The opinions, offered by teachers, and in particular what they had to say about their priorities were to some extent revealing of more fundamental factors. This was especially so where a large degree of spontaneous agreement was evident. From time to time, where this occurred, the responses could be taken as indicators of the sort of embedded assumptions about teaching and learning upon which this group at least, premised their

thinking about practice. This was not always the same as the rhetoric of infant teaching embodied in the literature.

The teachers' reported observation of their own practice had all the disadvantages of inaccuracy attendant upon this mode of observation. Yet the advantages, for this sort of sensitising activity, outweighed them. Working with some degree of self-awareness of the more obvious difficulties of self-observation, and after some opportunities to practise, what emerged was a clear point of view on what was going on in a particular learning experience even if that view was subjective. At the very least, reports gave valuable insights into what the teachers themselves believed to be happening.

The reports were of particular value in informing the researcher of the decision-making process at work in the infant classroom especially in illuminating how a learning episode is planned and modified, partly intellectually, partly intuitively, in response to the complex interaction between the learner, the material and the teacher.

The process showed that teachers' experience of children and materials leads to certain key concepts emerging as useful guides for day-to-day action. Hence certain key words appeared to have a special value in describing the teaching process and indicated the values which underly it. For example, a word frequently used, in a variety of contexts was 'stimulate'. It was commonly given as a function of pictures - to stimulate curiosity, language, discussion, activity, thought, and so on. On some occasions, it was presented as an end in itself, as the teaching objective or learning outcome. On other occasions, it was presented as merely a step towards a learning outcome. As it was used most commonly by the group, it described an amalgam of affective and cognitive factors in the learner that is not

readily accessible through the terminology of picture perception research. In this sense, it is illustrative of a significant difference between the terminology used, not by the literature of infant teaching but by the teachers themselves, and the terminology of psychological theory and research. It is not merely that different words are used for the same concepts, but more often the case that the different terminologies are defining different perspectives on the learning process and within that different values and priorities. A glossary of teachers' terms, however comprehensive, would not therefore solve the problem for the researcher who is bound, to some extent, to attend to those aspects of the teaching process which are more readily open to direct investigation.

Nonetheless, as part of the present rapid evolution of research techniques towards more qualitative and holistic methods there is a case for the researcher being more influenced by teacher terminologies, and the concepts and view of learning which they represent, particularly in formulating objectives for research. The case is even more unassailable in the present study which has as its intentions to investigate the practice and views of teachers in relation to a particular sort of teaching material. Such an investigation must operate as far as possible in the teachers' rather than the researchers' terms otherwise the teachers are effectively denied the means of informing it.

In addition to the sort of information outlined above, which derived mainly from observing the things upon which teachers agreed, much was gained from observing the areas of disagreement too. In the broadest terms differences between teachers confirmed that any account of 'the teacher's perspective' must acknowledge that there are detectable and significant groupings within it other than those deriving from superficially obvious factors such as age of pupil. Knowledge of these groupings is valuable, if not indispensable,

to any survey of practice or opinion if it is to be at all sensitive. In this respect the results supported and extended the findings of other surveys into primary teaching (Ashton et al, 1973; Bennett et al, 1976; Bassey, 1978; Richards, 1982), by suggesting that any attempt to better inform the research establishment by illuminating the 'teacher perspective' should acknowledge variations within it. Certainly, the differences which were evident in the discussion sessions acted as indicators of the directions to be taken in investigating this further.

The approach to the analysis of the discussion sessions owed something to the methods advocated by Davies and Ashton (1975) in their 'model B'. One aspect of this involved scoring the number of times a topic arose thus identifying the things which teachers felt were worth devoting more time to. This was facilitated by the structure of the discussions which focussed upon the report of the previous meeting, hence the extent to which a point was passed over or led on to further discussion was a notable feature, and at least a crude indication of the amount of interest that the topic held for the group.

The main method of interpretation used was semantic, and consisted of identifying areas of clear agreement, or disagreement, which seemed to indicate areas for further investigations or helped to structure questions which occurred in the literature. They did this in a number of ways; by simply indicating that teachers found a particular topic of especial interest, by revealing the extent of division within it, by revealing previously unsuspected facets of a topic, and by indicating some of the uncertainties which attached to previously taken-for-granted solutions.

Issues for investigation

The following issues emerged as ones which deserved further investigation:

1. Ways in which children's understanding of pictures changed as they passed through the infant school, and the implications of this for the selection and use of pictures in the classroom.
2. The range of different functions of pictures in infant teaching and learning.
3. Ways in which general teaching style relates to the specific selection and use of pictures as teaching aids.
4. Differences between pictures in the kind and extent of dependence upon pictures.
5. The sort of criteria and preferences which teachers use in selecting pictures.
6. The availability of pictures as teaching resources, including difficulties of storage and retrieval.
7. The importance of displays in the classroom and criteria for judging their effectiveness.
8. The value of the teacher-made pictures, in particular the features which make them more or less preferable to commercially produced pictures.

9. Concerns about pictures in early/beginning reading books, in particular, their value to vocabulary acquisition.
10. Variations in methods and type of pictorial aids used to meet individual learning needs, in particular, special educational needs.

Teachers' general relationship with pictures

There was a great deal of evidence, from both group discussion and written responses, to indicate that the teachers accepted without question that pictures were a necessary and even crucial feature of the infant classroom. This was not only so in terms of the teachers' views on what made for a learning-conducive atmosphere and effective teaching aids, but also seemed to have an affective dimension. Teachers reported that they would be 'unhappy' or 'uncomfortable' in a pictureless classroom, '... it wouldn't feel right'. In short the link between effective (and pleasant) teaching and the use of much pictorial material was for the teachers a firmly grounded assumption, so fundamental that it was not immediately open to examination. When presented with the question of what parts of their teaching would be most affected if they were not allowed to use pictures at all the whole group were non-plussed. It seemed impossible for the group to take the question on board as a way of ordering priorities for the use of pictures. It is interesting that the only group response to this question was an affective one - they would be unhappy.

Within this general acceptance of pictures it was possible to detect one minor reservation. They felt that children's pictures were intrinsically superior to provided pictures, the implication of this being that provided pictures could only legitimately be used when it was not possible to get appropriate pictures from the children.

Views on the purposes of pictures in the early years

It was clear that the group had a very wide and rich variety of purposes for pictures in the infant classroom.

Some of the purposes were expressed in terms of:

- (a) Their place in the curriculum (subject-based).
- (b) Ways of 'operating' upon the learner, for example, 'evoke emotional response', or 'holding attention'.
- (c) Pedagogical techniques, for example 'a way of receiving/recording an answer'.
- (d) Ways of altering the broad learning environment, for example, 'decorating', 'exploring the world beyond the classroom'.
- (e) A source of information.

It was possible to detect within this differences in the degree to which individual teachers saw the main value as, on the one hand assisting the development of the child, and on the other facilitating the curriculum.

Similarly it was possible to detect that teachers varied in the extent to which they differentially emphasised the informational or affective value of pictures, but with the great majority favouring the informational.

The group also identified that the term 'use' itself was open to different interpretation. Some might restrict it to deliberately planned activities

which were part of a programme or lesson, others might extend the term to include unplanned holistic events which did not predetermine a purpose and where the educational value was too complex to be easily identified.

Apart from the general flavour of the group values and purposes for pictures, identified above, the results also provided more specific data which informed the detail of the survey design. For example, it was possible to list the ways in which the group used pictures in the classroom (see Appendix page 24), the sorts of learning which they thought could be aided by pictures (see Appendix page 25), and the value and purpose of wall displays (see Appendix pages 26 to 28).

Ways of investigating the issues

From time to time direct questions were asked of the group about the sort of research methods they felt were appropriate to the questions. Not surprisingly, the answers were neither very clear nor very firm. This may have been because the group felt that the detail of research method was not within their particular expertise. In spite of this reticence it remains true that a good deal of the group discussion did have usable implications for research method.

The variety of views expressed on some topics, and the way in which these views seemed to relate to other variables, suggested that part of the research should be a large scale survey to establish their pattern in a more statistically significant population. For example, the extent to which teachers used pictures as a social/affective instrument for reducing tension in face to face interactions with apprehensive children seemed to vary according to the age of the children taught. In the group, pictures seemed to have been used this way with younger children, but not with those at the

top end of the infant's school. It is possible that this was more a variation in teachers' view of their role, or the way in which they conceptualise the educational needs of children, than differences about how pictures should be used. In short, the discussions suggested that associations may exist between pictorial aspects and other variables which are mutually revealing, and which can be best pursued and detected by large sample, quantitative research.

A further method implication was suggested by the teachers' acknowledgement of the difficulty of self-observation. It suggested that some aspects of practice would only be accessible by external observation which was based upon the teacher's own constructs. That is to say the use of external observations which are carefully tailored to meet the values of the teacher being observed as in the work of Keddie (1971).

In practical terms, the results proved valuable in giving insights into the sort of descriptive language that could be used to connect research terminologies and practitioner terminologies. This was particularly important for the large scale survey, where a questionnaire form commended itself as a likely approach. One of the persistent difficulties with questionnaire surveys is ensuring that respondents take the meaning from a question intended by the researcher. In this case the results of the group discussion bore upon it in two ways. First, the content of the questions themselves might be more relevant to teachers, whether relevance is denoted by teacher interest or divergence of opinion. Second, the language used to express the questions was informed by the group. The danger of being at cross-purposes was therefore much reduced as was the danger of failing to ask for information which the respondents might feel important to the topic.

The group were also of practical value after the discussion sessions by acting as critics of the initial draft research materials. They did this by looking at the materials themselves and by involving colleagues who had not been members of the group in trials of an informal sort. It must be acknowledged that at the conclusion of the sessions they could no longer be regarded as a representative group for formal piloting purposes, but they were in a strong position to say whether the materials embodied the ideas expressed in the discussion sessions.

The value of the exploratory group method

The present study is by no means unique in taking the idea of teacher opinion and professional practice as problematic. The need to increase understanding of the process of schooling characterises much recent research. It is common to pilot any research and in the case of investigations into the nature of teaching to do this in a way which assures the researcher that teachers will find enquiries comprehensible and relevant.

The exploratory group approach as described here goes further in informing the researcher by:-

1. Acknowledging the difficulties which may be experienced by teachers in identifying and expressing the sort of information which the researcher seeks.
2. Providing a process whereby teachers' opinions, values, and view of their own practice can crystallise gradually by interaction with the views of others interspersed with opportunities to refer back to their practice.

3. Providing a structure for discussion which is sensitive to both group and individual influence.
4. Providing a means of recording and analysis which ensures that areas of agreement and difference are revealed.
5. Providing a first stage feedback on research material.

It is important to emphasise that the exploratory group did not replace the process of piloting research materials, this was carried out later. It was intended as a sensitising exercise to assist in the initial formulation of both the objectives of the research and the approaches and instruments which might attain them. The approaches and techniques which resulted still required the normal process of piloting before they could be used.

Summary

The general position of unsatisfactory levels of influence of educational research upon the classroom appears, in the case of work into picture perception and learning, to be exacerbated by the research not addressing itself to questions which teachers would consider professionally relevant. In this area little research has been aimed at discovering either how teachers use pictures as learning aids or what they find problematic about them. This suggests that the main study should be directed to these ends. However, to be consistent with the theme of working from the teacher's perspective, it was necessary to attempt to involve teachers in its design to ensure that what was investigated in terms of teachers' views and practice was relevant from their point of view. With this in mind an 'exploratory group' of teachers was set up to inform the research design.

Two types of activity characterised the group, discussion of issues and written reports/notes on aspects of their practice with pictures. These were seen as complementary activities. The structure of the discussion depended upon each session focussing upon a detailed report of the previous one to enable the amount of time given to a particular topic to be taken as an indication of teacher interest in it.

The approach to interpreting the reports and written materials involved noting areas of agreement and disagreement between teachers as well as counting the incidence of particular topics.

The results served to illuminate the following areas:

1. the particular questions about pictures and infant schooling which were of interest to the teachers;
2. the language used by teachers in describing and evaluating aspects of pictures and learning;
3. the teacher variables which might be significant in determining different points of view;
4. the particular forms of data collection which would be appropriate.

It is suggested that the general idea of using an exploratory group as a precursor of research into teaching, as well as the specific techniques used with the present group, might have a wider application to other research aimed at either describing the process of schooling or establishing the priorities and values of teachers.

CHAPTER FOUR

THE SURVEY : RATIONALE AND METHOD

The experience and results of the exploratory group leave no doubt about the unique and almost unchallengeable value assigned to pictures by this group of infant teachers. What is suggested is a value that is almost indiscriminate in that any activity or task will inevitably be enhanced by their addition; a classroom is not a classroom without them, and they are an important pedagogical route to facilitating all sorts of development in children. This in itself becomes a subject for further investigation, and if possible testing, to establish whether this ethos is typical of a wider, less self selecting sample of infant teachers.

Equally it is clear from the exploratory group that within this broad framework of uncritical approval there are some notable discriminations made. The list on page 80 refers to those variations in practice, values, opinion and perceived functions of pictures which emerged from the exploratory group process. It provides a basis for the focus of an investigation that is, to a considerable degree, rooted in the practitioner's perspective.

The mode of investigation of such complex and wide ranging issues would ideally produce data which is on the one hand generalisable, in the sense that Bassey (1984) uses the term 'open generalisation'. By this he means that such findings can be confidently used to extrapolate beyond the set of events studied. Cronbach (1975) strongly advocates that generalisability should not be the main aim of educational research, but in the present study it is arguable from the conclusions of the exploratory group that some level of generalisation should form a part of its aims. On the other hand many of

the issues identified clearly require further investigation of a sensitive interpretive kind capable of illuminating the processes and concepts related to classroom practice with pictures. In short, what appears to be called for is an investigative technique which is reliable in both quantitative and qualitative terms. The obvious methodological difficulties in attempting to combine both within a single research approach led the writer to structure the investigation in two independent yet complementary stages. First a questionnaire survey then a series of minor case studies, referred to as 'school examples', which could at once both flesh out the questionnaire findings, and also carry the investigation into areas not addressed overtly by the questionnaire. A discussion of the research methods and substance of the 'school examples' will be found in chapter (seven). The present rationale will confine itself to the questionnaire survey and follow-up interviews directly related to it.

The list of issues worthy of further investigation, which arose from the exploratory group [page 67] was used as a guide to the contents of the questionnaire. This was supplemented by some questions deliberately aimed at obtaining teachers' views on specific research findings, especially where those findings seemed to run counter to common practice in infant schools. Point (3) 'Ways in which general teaching style related to the specific selection and use of pictures as teaching aids', and point (4) 'Differences between teachers in the kind and extent of dependence upon pictures signal a fundamental issue to be addressed by the questionnaire. That is to say whether one can usefully say anything in this complex area about infant teachers' views taken as a single entity.

Teaching style as a variable

It is clear that grouping all infant teachers together is likely to produce a highly generalised view, yet at the other extreme it is certain that each teacher would prove to be quite unique in his/her particular pattern of views and practice. Somewhere between these extremes lies a way of grouping teachers which will enable significant bands of opinion and practice to become evident.

The ways in which pictures are used by teachers must to some extent reflect what it is that they are trying to achieve in the classroom, and in turn what they are trying to achieve springs, to some extent, from their particular set of values and beliefs about the purpose of education and the nature of the learner. It is a well established belief of educational research that there are detectable and, to some extent, predictable threads connecting ideology, aims, and practice. Ashton et al (1973) used teachers' discussion groups to trace some of these. In particular they identify the individual/society ideological dimension as an especially potent one to establish the influence of what they describe as 'definitions' of education upon practice:-

Clearly, each teacher must decide where he stands on these issues because his standpoint fundamentally affects his decisions about what aims to pursue and, in fact, will infuse his whole approach to teaching. (p. 12)

They went on to confirm this assertion more empirically in a later and extensive survey of primary teachers (Ashton et al, 1975).

It must be accepted that at the most fundamental level there are differences between teachers in terms of their ideological stances, where ideology is defined as a pattern of ideas, both factual and evaluative, which purport to explain and legitimise the social structure and culture of a particular social group or society.

A considerable body of theory and research exists to confirm that such differences do exist and that they have a significant influence on practice, (Ashton et al, 1975; Woods, 1979; Galton and Simon, 1980). Although the influence of ideology upon practice can be taken as demonstrated, a precise examination of such fundamental values is complicated, if not confounded, by both their diversity and complexity. Values concerned with the distribution of power and wealth in society, the nature of achievement, the value of the individual, notions of duty, responsibility, social quality, will coincide within an individual to produce a unique ideological formula for his/her consideration of all other ideas and action. Moreover it has been convincingly argued by Althusser (1980) that much that is important about individual ideologies is implicit to the point of being inaccessible even to the individual themselves, making it improbable that direct enquiry will be fruitful. Most often in educational research ideological positions are inferred from opinions about areas which are more immediately relevant to practice. Schutz (1953) talks about ideologies being visible through practical 'recipes', agreed sets and ways of doing things. In the case of investigations which attempt to relate ideology to practice in teaching, a frequent approach is to focus upon the teacher's opinions about the aims of education, (Plowden, 1967; Ashton et al, 1973; Taylor et al 1974; Bennett et al, 1976). For this purpose what are the most important educational aims for the purpose of revealing ideological positions with clarity is still a matter for exploration. However, in many of the existing studies two

dimensions play a particularly dominant part: the individual/society dimension and the subjects/developmentalism dimension.

Ashton et al (1975) used the first of these in their investigation into the ways in which teachers' expressed aims relate to learning and other variables. The teachers were required to respond globally to a question which presented two broad purposes of primary education. Two paragraphs were offered which could characterise the nature of primary education, on the one hand, as a social process by means of which children are brought to function effectively in, and subscribe to, the values of society as it is seen by the teacher, and on the other hand, as an individualised process, concerned with enabling the child to be independent through the development of personal capacities and attitudes. The teachers showed which of these they emphasised most, and on this basis were categorised as either 'societal' or 'individualistic'. Societal teachers selected aims which consistently showed a marked difference from those that individualistic teachers selected. They chose those aims which stressed the intellectual, moral, physical and spiritual, and chose to work in a more or less traditional manner; individualistic teachers were inclined to stress the aesthetic and emotional/personal aspects of development, and generally worked in a more progressive manner. The same sort of patterning, demonstrating a consistency between teachers' perception of the broad aims of education, their priorities for specific aims, and the way they choose to work, is evident in the work of Bennett et al (1976).

The subjects/developmentalism dimension, to some extent, interacts with the above. That is to say most studies show at least a sympathy between the societal and subjects extremes. The subjects/developmentalist dimension is readily seen when teachers and institutions attempt to describe the

curriculum (Constable and Brown, 1985). For this purpose subject descriptions tend to be favoured, possibly because it is easier to select a subject 'package' than to find developmental headings for what goes on in the classroom.

Lawton (1983) offers a framework for reporting the curriculum which can be used to support a developmentalist perspective. He suggests that a culture may be described in terms of eight substructures; social, economic, communication, rationality, technology, morality, belief and aesthetics.

Each of these can then be taken as areas of work within the school, and the individual child can be visualised in terms of developing within each.

Stonier (1982) also attempted to derive aims from a coherent cultural model which led him to account for education in terms of education for employment, life, the world, self-development, and pleasure.

A more official perspective attempts to incorporate both subject and developmentalist dimensions within the same model. The DES report (1981), The School Curriculum, offers two sorts of interrelated core learnings as a basis for selecting aims and describing curricula. The first they describe as 'processes' which comprise: learning and thinking techniques, ways of organising knowledge, dispositions and values, skills and abilities, forms of expression, practical performances, and interpersonal and group relationships. The second 'core' learnings, headed areas of knowledge and experience, line up quite well with traditional subjects and comprise: arts and crafts, reasoning and values, social, cultural and civic attitude, science and technology, communication, environmental studies, mathematics, work learning and lifestyle, and health education.

Although this dual core idea may be seen as springing from first principles in relation to the nature of children, learning, and knowledge, it may be, more cynically, seen as an uneasy compromise in which the official line attempts to accommodate within one framework two separate, and perhaps fundamentally irreconcilable ideologies.

King (1978) claimed that ideologies which underlie teaching and learning could be examined by looking at the actual practice of teachers. He found that practical primary pedagogy seemed to be characterised by similar dichotomies to those which were noted above in regard to aims. The principal dimension commonly used to make broad distinctions between types of practical teaching is the progressive/traditional scale. The global nature of this scale is clear in that either of the extremes is associated with a package of characteristics which may appear in any combination in the real world. In their description of 'open education' Walberg and Thomas (1971) say that it depends upon a collection of assumptions about children, learning, and knowledge, such that it emphasises curiosity, active learning sequential development, subjective knowledge, individuality, and the multiplicity of educational sources. This contrasts with Selleck's (1972) description of class teaching which he claims is seen as the antithesis of child-centred individualism in that it treats children as identical and is strongly tinged with connotations of fact transmission, rote-learning, and even indoctrination. Bennett et al (1976) portray the characteristics of the most traditional teachers as follows:

An extreme group in a number of respects. None favour an integrated approach, subjects are taught separately by class teaching and individual work. None allow pupils choice of seating, and every teacher curbs movement and talk. These teachers are above average on assessment and procedures (usually testing) and extrinsic motivation (awarding stars and grades) predominates. (p. 47).

Barker-Lunn (1970) used a similar type of package to describe the 'type 2' teacher (more traditional) in that they used class teaching, believed in streaming, were less tolerant of noise and talking, showed less interest in the work of the slow child, and had favourable attitudes to corporal punishment. From such descriptions child-centredness emerges as one of the principal components of progressive education. At its extreme it may lead to fears of deskilling teachers or even rendering their instructional role redundant. Marsh (1973) sums up a child-centred, progressive view of the primary school by describing the appropriate role of the primary teacher in the following way:

...in the primary school there is a greater emphasis on the interaction of child with child than in the traditional teacher-dominated instructional programme. The teacher tries to reveal the inherent qualities of an experience, not to get between the child and the book, the child and the material, or the child and his companions. (p. 39)

Cox and Dyson (1969) in speaking of the same 'progressive' relationship between teacher and child characterise it as:

...children must find out everything for themselves, must never be told, never be made to do anything. (p. 8)

However, in the real world of the classroom such fears seem to be ungrounded. As Galton (1982) points out:

As far as progressivism in its present form is concerned it has not so much as failed as has yet to be tried. (p. 259)

The idea that teaching style can be most effectively described as positions on a scale between the extremes of child-centredness and class teaching has for this, among other reasons, largely given way to categories which assume some sort of direct instructional involvement. This is evident in the shift

from Bennett's (1976) position of classifying teachers at the extremes with a median 'mixed' group, to the more recent DES Primary Survey (1978) which classifies teachers as 'didactic' or 'exploratory', neither of which would be quite in keeping with Marsh's position. Similarly all four teaching styles identified in the ORACLE study are instructionist in the sense that they are all directing the learning of the children. They identify 'individual monitors' who are closest to progressivist ideas in that they depend to a considerable extent upon guided discovery methods, with a strong emphasis upon individual learning processes; 'class-enquirers' who are characterised by placing an emphasis on problem-solving which is managed by a process of class directed enquiry that acknowledges and responds to individual differences in learners; 'group instructors' who as the name implies spend little time with individuals and who spend more time on giving information; and 'style changers' where the emphasis on certain sets of tactics varies according to the preferred pattern of organisation at any time. Hence none of the teaching styles observed in the ORACLE study can be easily identified with the extremes of the formal/informal scale. However, it is important to note that the dimensions themselves are not the same and some of the qualities which characterise each are independent. For example, whilst integration of subjects was taken as a measure for classifying informal/formal in Bennett's study, this was not so for ORACLE, and indeed turned out to be fairly evenly distributed across categories.

However neutral a research team might wish to make the categories they use it is inevitable that they will contain implied values. There is an orthodoxy of primary education that cannot be avoided. It is what Alexander (1984) refers to as the rhetoric of primary education, and it appears to favour certain of the qualities in question. The Plowden Report (1967)

marked the official acceptance of the child-centred ideology and informal methods:

'At the heart of the education process lies the child.' (p.7)

It identified a number of organisational and pedagogical strategies which characterise progressive approaches. In particular the integrated timetable, pupil determination of activities, co-operative and discovery learning, and team teaching are, it is implied, appropriate practical expressions of progressivism.

The orthodoxy of Plowden's view of progressivism tends to persist in spite of a wealth of criticism which has been aimed at it in the intervening years. The Black Papers (edited by Cox and Dyson), the effect of empirical studies, the Auld Inquiry (1976) into William Tyndale Junior school (where it was claimed progressive methods had been taken to an extreme), and the report of the HMI, relating to the use of child-centred methods in the hands of inexperienced teachers, have taken their toll. Yet it remains substantially true that, at least in dialogues between different sectors of education, the primary ethos is still seen as characterised by many of the features which Plowden identified with progressivism. These include child-centredness, informality, enquiry as opposed to instruction, and a concern with the whole child rather than an emphasis on cognitive development (Alexander, 1984).

It is not surprising, therefore, that when Richards (1982) casts around for a way of summing up the six teaching styles identified in ORACLE he should refer to the mixed didactic style as 'secondary' and the remainder as 'primary'. It is also not surprising that, where empirical studies reveal discrepancies between what actually happens and what is claimed to happen,

it should be along the lines of there being less practice in line with the primary rhetoric. Only a fifth of the teachers in the ORACLE project adopted a highly individualised style of teaching. About one in ten teachers in Bennett's study had a teaching style which corresponded to the Plowden view of good primary practice, and the primary survey (1978) revealed that only 5% of teachers used what they termed an 'exploratory' approach, whereas 75% were 'didactic' and 20% used mixed methods. Other studies have produced similar results (Bealing, 1972; Ashton et al, 1975; Bassey, 1978).

If the primary ethos, or perhaps merely the rhetoric, distinguishes itself from the secondary ethos by being more in line with the Plowden orthodoxy, one might say that the infant ethos distinguishes itself from primary by extending the same dimension. As a result of classroom observation King (1978) characterised the infant child centred ideology as having four central beliefs; sequential developmentalism, individualisation, play as learning, and childhood innocence.

The child is seen as passing through a naturally ordered sequence of physical, physiological, psychological and social development, although each child possesses a unique individuality. Young children are naturally curious, exploring and discovering things around them, learning best through their play when they are happy and busy, and free to choose to do what is of interest to them. (p.11)

Taylor (1975) compared the way in which teachers of primary children of different ages placed emphasis on educational aims from a list of seventy-two which were subsequently grouped into, social and moral, intellectual, personal, aesthetic, physical and spiritual development. The most striking difference between teachers of infants and juniors is the emphasis given to intellectual development. Infant teachers placed it low on their list of things which they influence, whereas junior teachers placed

it second only to moral and social development. Infant teachers also placed more emphasis upon aesthetic development and concerned themselves less with physical development, as school aims, than their junior colleagues. In short, an emphasis upon personal, social, and aesthetic development in the infant years gives way to more intellectually oriented aims in the junior years.

It should be emphasised that the present study is concerned with how teachers report their practice and intentions. The extent to which there is a correspondence between what teachers say they do and what they actually do is not part of its remit. This is taken up by a number of the studies already mentioned: Bealing, (1972), Ashton et al, (1975), Bennett et al, (1976), King, (1978), and the ORACLE project. The general pattern which seems to emerge is that teachers will report their views and their practice as more in line with the primary ethos than appears to be the case in actuality. However, this is, on the whole, a consistent one, so that difference in practice between teachers can be predicted from what they report about themselves.

Attempts to characterise or describe teaching style often employ extended or multiple scales in an effort to capture something of the complexity of it. Yet however detailed or complicated they may be to observe and measure when it comes to summarising for the purpose of discussion they are commonly resolved to a simple duality, or a series of dualities which overlap. For example when Galton and Simon (1980) reduce the ORACLE six categories to two, class teachers and class enquirers, in order to apply the results to the idea of teacher effectiveness. Both the traditional categories and the idea of using dichotomous description in itself have recently come in for critical examination. Stewart (1986) says:

It would appear that the continual comparison of teachers as formal/informal, progressive/ traditional is not only fraught with problems, but also assumes a dichotomy of styles which may not actually exist (p. 100).

Alexander (1984) takes up the question of using dichotomies to describe teaching characteristics and convincingly demonstrates that not only are some of the common ones false, in the sense that they do not constitute extremes of the same scale, but also they lead to polarisation in educational discourse which detracts from thorough exploration. Whilst there is much in what he says it does not detract from the fundamental usefulness of describing variations by identifying dimensions which can be characterised by labelling the extremes. However, he introduces a valuable note of caution which encourages a rigorous examination of such dualities to ensure that the postulated labels really are in the same dimension. For example to oppose 'individualised learning' and 'class teaching' is arguably false since there are sensitive approaches to class teaching which do respond to individual learning needs, and there are non-class teaching methods which do not individualise learning. Such a dimension would be better described in terms of individualised and non-individualised teaching. Given that such care in labelling the scales is rigorously applied a binary if not dichotomous approach to characterising teaching style does seem to be a useful instrument for discriminating teaching approaches.

The studies considered show a visible connection between what teachers say about their views on the purposes of education and their practical teaching approaches, albeit with a gap between rhetoric and practice. Yet their actual reports of their practice do appear to be more closely connected with the reality of it. Hence for the purpose of the present study the most effective sort of questions to ask will be based upon the teachers reports of their broad approaches to classroom practice. In this way it should be possible to identify broad distinctions in teaching style which may interact

with the narrow descriptions of picture use to offer a more sensitive account of teachers' views and practice than would otherwise be the case.

The existence of an orthodoxy of infant teaching poses some problems regarding the sort of questions necessary to get at this information. It is likely that questions which would overtly characterise teachers as 'didactic' or 'exploratory' would be influenced by. It is probable that teachers would resist reporting themselves in what they felt was an officially disapproved way. For this reason it is important that the questions are related to descriptions of teaching which can be seen as positive irrespective of their correspondence to this orthodoxy.

The extent to which the categories used in other studies will discriminate groups of teachers who can represent different views on the value and uses of pictorial material in the infant classroom has not been examined to this point. Yet it is evident from some of the studies that differences in teaching style do result in teachers using materials in different ways. For example a 'didactic' teacher is at least in a stronger position (because he/she is more in control) to carefully select materials and plan a sequence of presentation than the 'exploratory' teacher, who being more dependent upon more holistic/discovery methods, will be less in control of the precise material and sequence of any particular learning episode. It is also possible that the 'exploratory' teacher may make significantly less use of the precisely planned 'introduction' to lessons, which are often an important location for pictorial presentations of a particular sort. Hence it appears that a fruitful area to explore in relation to teaching style in infant teachers would be the extent to which they vested control of classroom events with the pupils, or retained control themselves. This coincides to a large extent with notions of the teacher as a facilitator or

instructor, and is not far removed from the didactic/exploratory dimension used in the HMI Primary Survey.

This examination of recent work on categorising teachers' views on education and teaching styles suggests that for the purpose of the present study some consideration of teaching style as a variable will be useful, and lead to a more sensitive portrayal of the practices of infant teachers. Some of the practical implications for how this might be done include:

1. Describing teacher differences by means of binary scales will be a useful approach, even where they may not represent pure dichotomies.
2. Questions based upon the teachers' reports of their teaching styles, will be both relevant to their use of materials and relateable to ideological positions.
3. A useful focus within the broad notion of teaching style will be the 'didactic/exploratory' dimension, or a similar dimension which distinguishes principally on the basis of the degree to which the pupils are empowered to determine classroom events and the course of their own learning.

For the present survey it was decided that asking about classroom practice would be most appropriate for two reasons. First it is arguably easier and more straightforward for a teacher to report what happens than what they believe. Belief in the sense of a statement of educational ideology is hedged around with circumstantial constraints and conditions whereas a statement of what happens now, whilst not entirely free of both intentional and unintentional distortion, would at least seem to the reporter to be pragmatic rather than speculative. Second, a direct statement of

educational ideology is likely to be more open to influence by received rhetoric. Many teachers contend that they are forced into ideologically uncharacteristic ways of behaving by constraints beyond their control, making a clear separation in their thinking between how they actually do teach and how, in some ideal world, they would teach. It seems probable that in doing so their report of their ideological position is altered by what they believe to be the ideological position of the listener. In the present case the audience is an educational researcher, and consequently a representative of the establishment and by association the established rhetoric. One source of reference in formulating a reply is likely to be the teacher's beliefs about the accepted orthodoxies. A report of practice, however, is likely to have as its main reference the events themselves. This is open to distortion, but not as readily nor as radically as a statement of personal ideology.

Four dimensions of practice were selected which originated in the foregoing analysis of the 'didactic/exploratory' dimension and consequently may be interrelated on that basis, but were different, distinguishable, and easily reported classroom behaviours. The specific areas chosen were the class timetable, planning, control of activity, and the curriculum content.

The extent to which the class day is integrated or differentiated into discrete periods for different activities is often taken as an important index of differences between infant teachers (Plowden, 1967; King, 1978; HMI Primary Survey, 1978). Integration is, to some extent, linked with progressivist doctrines in that it is a way of apportioning time which easily accommodates an individually focussed, developmental and holistic view of the educative process. By the same token a highly differentiated timetable may be associated with teacher delineated activity, subject focus and group rather than individual organisational structures.

The extent to which planning is deliberate or spontaneous is another feature commonly linked to ideological paradigms. Calderhead (1984) distinguishes 'reflective' decisions which are deliberate, and involve the identification of alternatives, from 'immediate' decisions which are taken in response to the situation at hand. Similarly Yinger (1980) distinguishes 'preactive' and 'interactive' planning where the emphasis is more squarely upon time, rather than depth or complexity of thought involved. Preactive planning is nevertheless substantially different from interactive planning in that it is a generalised set of intentions necessarily lacking the awareness of the immediate events and circumstances which characterise interactive planning. On the other hand preactive planning does have the potential of being informed by a rational planning model. However, work by Makay and Morland (1978), Yinger (1980) and McCutcheon (1980) indicates that such planning in infant schools is not the rule, and that the great majority of teachers devote preactive planning to the selection of 'interesting' activities, making little or no reference to either overall objectives or processes. Earlier Zahoric (1975) had concluded that over eighty percent of teachers began their advanced planning from activities rather than objectives. In a later paper Zahorik (1982) examined this focus on activities in greater detail, finding that in most cases they were selected on the basis of those which promised to arouse the interest and hold the attention of their pupils. He claimed that in doing so teachers were failing to distinguish enthusiasm from real learning opportunities. With regard to interactive modes of planning Calderhead (1984) observes:

It seems that teachers are capable of responding apparently automatically to quite complex configurations of cues, displaying some sensitivity to the abilities of the pupils, characteristics of the materials and context, and to the learning outcomes of the activity.
(p.11)

It is clear that the preactive and interactive stages of planning are substantially different in ways other than when they occur. It is equally clear that preactive planning is not necessarily more thoughtfully related to learning objectives or the broad context of development for individual children. Yet it does seem to have the potential to be so if only because there is more time to take rational decisions. Interactive planning has a special place in the rhetoric of infant teaching. It connects with some aspects of progressive ideology because of its claimed flexibility and sensitivity to immediate conditions and children's needs. The idea of spontaneity in planning also has links with the progressive movement via the model of teacher as facilitator (or enabler) where in accordance with one interpretation of Piagetian development the teacher's role is that of mediator between the child and his environment. With this model emphasis upon interactive decision making is assured by the unpredictability of events. Yet another route remains which connects interactive decision making and progressive ideals; the emphasis upon individualised learning. Preactive deliberate planning can be argued to be more appropriate to class lessons, which are controlled in a way which increases the predictability of events. An emphasis upon interactive planning is to some extent congruent with individualised learning in that the response and progress of the individual child in relation to a given learning activity requires immediate response from the teacher if an effective match is to be maintained.

Questions of control are close to the heart of ideological differences. Within that, the extent to which pupils are empowered to select activities for themselves or determine when an activity should be concluded is an observable and sometimes marked difference between infant classes. There are also numerous ways in which pupils may come to share in the decision making process. For example, pupils may influence the teacher's decisions by many forms of explicit and implicit types of negotiation, or tasks

deliberately set and controlled by the teacher might themselves be sufficiently flexible to allow a good measure of individual choice within them. Topic work is frequently organised in this way.

Berlak and Berlak (1981) identify teacher versus child control as a crucial set of dilemmas which not only inform and characterise distinctive teaching styles but also provide a useful instrument for examining the teaching/learning interaction. They identify three separate issues or dimensions within it. These are teacher versus child control in terms of time, which might be said to relate to the earlier point about the integrated or differentiated timetable; teacher versus child control in terms of operations which relates to the present discussion on who takes the decisions about what activities will be engaged in at any time; and teacher versus child control in terms of standards, which is not unrelated to whether the curriculum aims are narrowly focussed upon basic subjects, or more broadly based on general development. This idea of conceptualising differences in teaching style or approach as the manifestation of compromises between dilemmas is useful in the present discussion in that it suggests a mechanism whereby ideological factors inform action decisions. Specifically the teacher versus child control in terms of operations holds the tension between, on the one hand, the teacher taking all decisions about what will go on in the classroom, perhaps on the grounds that this enables a rational sequence of instructional events to occur which will optimise learning, and on the other hand the teacher allowing the children to decide what they will do, perhaps on the grounds that in this way activities will be chosen (given a wide enough menu) which are exactly relevant to each child, thus maximising learning. This factor interacts with both the integration/differentiation of timetable dimension and the preactive/interactive planning dimension. There is a link between teacher control and differentiated timetable in that the changes of activity

associated with the timetable segregation are in themselves examples of the teacher's control of class activity. There is a link with planning in that deliberate advance planning presumes the control of activity necessary to operationalise the plans. Hence the question of whether the teacher allows children to decide their activity, either directly or via his/her mediation, is pivotal to the dimensions under discussion.

An important aspect of teaching style concerns the intentions of the teacher for what is accomplished in the classroom, that is to say the aims of the work. Whilst it is accepted that the aims of any educational enterprise must be both complex and multiple they may be expressed in terms of the emphasis placed by them upon general factors. In this case the factors concern the extent to which the work is mainly aimed at 'basic subjects' or 'other things'. Both the exploratory group and the follow up interviews demonstrated that there is a good degree of agreement between infant teachers on what is meant by 'basic subjects'. Each teacher offered the same list; reading, writing, numeracy (in particular the four rules) and oral language. The only real difference between teachers was the extent to which oracy was seen as a skill in its own right, or an essential sub-skill of reading and writing. Teachers also varied in the importance which they assigned to listening skills as a separate basic subject. Most saw it as part of oracy. Similarly there was a good deal of agreement upon what constituted significant 'other things'. Though more wide ranging than 'basic subjects' they were largely identified as social and personal aims.

For example the traditional progressive infant aim of 'learning to live together' fell squarely into this category, as did 'the development of the whole child'.

This question interacts with several of the categories identified in the Berlaks' curriculum set of dilemmas. These include personal knowledge versus public knowledge, knowledge as given versus knowledge as problematical, and learning as holistic versus knowledge as molecular. An emphasis upon basic subjects accepts a model of knowledge which is public, given and molecular. Public in the sense that it is conventional and transmissible; being the property of the teacher it is passed via instructional techniques to the pupil. The very notion of basic subjects as a set of conventional understandings and skills which give access to other bodies of knowledge is squarely in the classical humanist paradigm of educational ideology (Lawton, 1983). By the same token basic subjects are 'given'. Notwithstanding that a range of more or less progressive pedagogical approaches may be applied to their acquisition, what is to be acquired is clear before the outset. Finally, the molecular nature of basic subjects exists at least in as much as that they can be identified, by definition, within a taxonomy of knowledge as a separable part of the whole. It is in this molecularity that the classical humanist nature of basic subjects notions is most clear. Once taken on board both progressive and reconstructionist representations of knowledge are no longer tenable.

For this reason it is possible to predict that a teacher who emphasises basic subjects in their aims would also tend towards preactive, deliberate planning, a differentiated timetable, and teacher, rather than pupil, control of classroom activities. Each of these may be seen to be consistent with the same classical humanist view of the nature of knowledge, and each holds some allegiance to a transmission model of the educative process.

Questionnaire design

The questionnaire (Appendix pages 30 to 45) asks teachers to respond on each of these dimensions in section 2, using an opinion scale with five divisions. The five point scale is used throughout the questionnaire wherever strength of opinion is sought. Travers (1978) traces the wide variety of informed opinion on the detail of questionnaire design and effective scaling of answers. His main conclusion, and that of others in the field, is that appropriateness to the matter in hand is the crux, rather than identifying a body of received wisdom. In the present case two features were regarded as important. First that teachers should be offered the opportunity to register a balanced opinion which favoured neither end of the scale. Some workers have felt it valuable to deny this in order to press the respondent to make an other than neutral statement, it being feared that this was sometimes a way of failing to engage with a question. However, since a balanced, or neutral opinion is a perfectly possible condition it would appear to distort the data to prevent its registration. The risk that on some occasions it would offer an avoidance strategy seems a small price to pay for data which is more representative of the teacher's feelings. Second, it seemed important to offer teachers the opportunity to discriminate their strength of opinion in either direction from the median position. Five points permits this whilst being least complex and most easily coded.

The questions on 'Teaching style' in section 2, together with the 'background information' in section 1 were intended to be the main independent variables. There is, however, one other question to be treated in this way. A single question comprises section 3(c); this asks the teacher the extent to which she feels that her teaching is generally dependent upon pictures. This too is intended to be treated as an

independent variable with the remainder of questions in section 3 being considered dependent for the purpose of the analysis.

Section 3 (a) presents questions concerned with the way in which teachers use pictures in the classroom. The selection and wording of these was directly informed by the findings of the exploratory group. In effect the lists are those identified by the group, expressed in the language used by the exploratory group teachers. Opportunity for additional uses to be given is provided at the end of these questions.

Section 3 (b) is intended to explore the teacher's perception of the extent to which pictorial materials make a distinctive contribution to aspects of child development. The work of the exploratory group justified the inclusion of the set of questions in that there was agreement that pictures did make a contribution to many aspects of development. What was not forthcoming from the group was either a way of breaking down the totality of development into different aspects, or the form of language which would express it. In the event the categories and language were taken directly from the D.E.S. Primary Survey (1978). Teachers were invited to give weighting on a five point scale to each of the areas.

Section 3 (d) addresses itself to questions of preference for pictures. This is somewhat more complex than earlier sections in that it requires some analysis of mode and context of pictures which is both comprehensible and focussed on those aspects of pictures which are most relevant to teachers' selection processes. Both of these were informed mainly by the exploratory group, yet coincided to a large extent with areas which have been addressed by existing research. For this particular set of questions an option was provided for teachers to elect that their preference varied according to the particular use that a picture would be put to. In this way it was intended

that preferences actually shown on the main scale would be more likely to be unequivocal statements of general preference which would influence the teachers in the way that they normally selected pictures for use in the classroom.

Section 3 (e) on the storage and retrieval of pictures was included because it emerged as a problem for teachers in the exploratory group. It was clearly an area where looking for examples of good practice would be valuable. For this reason those who considered themselves highly systematic in their storage and retrieval of pictures were specifically asked to indicate the basis of the system that they used.

The perceived value of wall displays as an essential part of the learning environment by the exploratory group, and from initial informal school visits led to the inclusion of section 3 (f). The specific questions arose from work done by teachers in the exploratory group among their colleagues (see Appendix pages 26 to 28) and reflect variations in opinion which they discovered. An open question was included to give teachers the opportunity to detail other criteria which they felt important.

Section 3 (g) is the part of the questionnaire which makes the most direct contact with existing research. The questions, designed to elicit teachers' perceptions of their pupils' understanding of pictures are drawn directly from the work outlined in chapter one. Goldsmith's (1984) summary was especially useful in compiling the questions. The terminology was modified in the light of the views of the exploratory group. In this case a 'don't know' box was included on the basis that some of the questions might prove quite difficult to answer from normal classroom observation. It was also considered significant that teachers might vary in the extent to which they were prepared to claim this knowledge.

The question of whether pictures actually drawn by the teacher have particular value was something which had produced differences of opinion in the exploratory group. For this reason section 3 (h) was included, enabling teachers to respond to some of the main questions which produced disagreement within the group. Each of these is more or less concerned with the value of teacher made pictures as opposed to commercially produced pictures. In fact the exploratory group had unanimously agreed from the outset that teacher made pictures were in general a good thing. It was on the detail of justifying this position that disagreements arose. The questions, therefore, attempt to gather opinion in respect of these justifications rather than asking the general question about all-over value of teacher made pictures.

Section 3 (i) is directed towards the exploratory group's belief that a particularly important location for pictures in the infant classroom is the beginning reading book. The specific questions included come partly from the exploratory group itself and partly from research. Question (i) which presents the possibility that in the earliest stages pictures may be a distractor from the text is based upon the work of Samuels (1970) and Rankin and Culhane (1970) who were supported by Lippman and Shanahan (1973), Levin and Divine - Hawkins (1974), Concannon (1975) and Willows (1978). This work indicates that young children acquire sight vocabulary more quickly if their initial reading books are without pictures, which it is claimed distract the child's attention from the text. Question (iii) and to a lesser extent question (vi) were influenced by the work of Denburg (1976, 1977) supported by Lang and Solman (1979) who conclude that pictures are most effective in helping to develop initial sight vocabulary if they only show objects directly named in the text with no additional or incidental information included. The remainder of the questions spring from the beliefs of teachers in the exploratory group.

The last of the formal questions, section 3 (j), relates to the place that pictures may occupy in the learning of children with special educational needs. The question is informed, not only by the feelings of the exploratory group, but also by the prevalent tenor of the literature. Many writers and commercially published schemes, which specify techniques suitable for teaching children with special educational needs, present pictures as particularly important. They are taken to be not only especially effective motivators, but also as a channel of printed communication where illiteracy denies the use of words. Illustratively one may mention Stott (1978), Gulliford (1985), and Farnham-Diggory (1978). Teachers are invited to report any particular teaching strategies or techniques which they adopt in this respect. This reflects a secondary, but important, aspect of the study, the collection of examples of what individual teachers consider to be good practice. This is pursued in section 3 (k) where teachers are asked to report any ways of using pictures in their teaching which they feel are either particularly effective or unusual. The justification for this aspect of the study lies principally in three claims. First, that as an intrinsic part of recognising the professionalism of the respondents it is important to facilitate any desire they may have to supplement the interrogation which they experience at the hands of the questionnaire with the opportunity to announce their own accomplishments in what they consider to be appropriate manner and detail. Second that detailed open statements of examples of 'good' practice are informative of the professional values of the teachers and complement answers given in other ways. Third, is what one might term professional economy, in that it seems a distinct waste to contact so many teachers and engage them in a dialogue on pictures in education without attempting to collect examples of practical techniques which might be worth dissemination to a wider audience.

The final question, Section 3 (1), allows teachers to volunteer to be included with those from whom the sample for the 'school examples' is drawn.

Piloting the questionnaire

It is possible to identify three stages in the process of piloting the questionnaire, although the first of these involving the exploratory group would perhaps be better seen as part of the initial design. For this stage members of the exploratory group completed the first draft which led to detailed discussion of its clarity, ease of completion, sensitivity to the respondent's wants, time demands, confidentiality and format. Modifications were then carried out and the process repeated. In this way two revisions were made and the third draft agreed as ready for testing by a wider audience. This step represents the second stage. The third draft was taken by each member of the exploratory group to their colleagues at school. In total this amounted to forty two teachers. Each teacher was asked to complete the questionnaire, time themselves in doing it, and write in any comments or criticisms. Subsequently they talked to the exploratory group members about their responses. This information was brought to a meeting where it was discussed and modifications which led to the fourth draft were agreed. On the whole these were minor, and mainly concerned slight adjustments to the wording especially in the introduction. The length of the questionnaire was not criticised, although there had been some apprehension in the group about it, so no adjustments were made in this respect, except to permit more space for open comments at the end of the form.

The third stage was a more orthodox piloting procedure, in which an attempt was made to replicate in everything but sample size the conditions of the final survey methods. Four schools were chosen at random from each of the

two LEA's, Durham and Leeds. Five questionnaire forms were sent to each with an accompanying letter (Appendix page 47) which explained the purpose of the survey and requested headteachers to distribute the forms to members of staff, subsequently collecting and returning them. A total of five schools, three from Durham and two from Leeds, did so. This amounted to twenty one completed questionnaires. All were completed in full with no spoilt questions or any other indications that difficulty had been experienced in their completion.

The sample

In order to produce an experimental population which was as representative as possible of infant schools in general, two LEA's were surveyed. The areas selected, Leeds and Durham, whilst both in the North of England are different in some ways.

Durham LEA is largely composed of small to medium sized schools situated in villages and small towns, whereas Leeds LEA covers an almost entirely urban area with mainly medium sized schools which have geographically small catchments. There are marked differences in the socio-economic identities of inner city districts, ranging from two, which have middle class characteristics, to a number of social priority areas. The total sample for the survey was taken in equal numbers from the two LEA's to produce a balance in terms of the rural/urban dimension. It was also felt important to exercise some degree of control over the socio-economic status of the schools used. To accomplish this advisers in each of the LEA's were asked to divide the schools list into those with (a) social priority catchments, (b) mixed catchments, and (c) middle class catchments. This produced a proportion of roughly 2:3:1 respectively.

On the basis of the return rate from the pilot of about 60% it was decided upon an initial circulation of 140 schools, in order to yield returns from about 80 schools. Assuming an average return per school of four to five completed questionnaires this would yield a total sample of three to four hundred questionnaires which it was felt would be sufficiently large to permit reliable statistical testing. Following the procedure set out above these were selected for each LEA as 23 type (a), 35 type (b), and 12 type (c) schools.

The method

Batches of six questionnaire forms were sent to the headteacher of each of the sample schools. The headteacher was asked to give them out to staff members, subsequently collecting them in sealed envelopes and returning them altogether. This process of working via headteachers seemed especially important in view of the industrial action which was in operation in the schools at that time. Where returns were not forthcoming by the date offered a further letter was sent (see Appendix page 48) in the hope that this would bring them in.

In the event 88 schools returned questionnaires; 38 from Leeds and 50 from Durham. This is a return rate of 63% which may be seen as remarkable in view of the industrial action. The total number of questionnaires returned was 380, of which 62 were from headteachers, 36 from Deputy Heads, 128 from teachers with posts of responsibility and 145 from class teachers. In terms of LEA distribution 155 were from Leeds and 225 from Durham. This imbalance was not thought to influence the results in any important way since subsequent analysis failed to show any significant associations between the LEA and other variables, with the exception of class size where there was a slight tendency for Leeds to have larger classes.

There were no spoilt questionnaire forms returned.

Questionnaire follow-up interviews

As part of the school examples, specific interviews were directed at investigating the meanings which teachers had placed on the questionnaire form, and difficulties which they may have experienced in completing it. Such interviews were conducted with 21 teachers who were randomly selected from those who indicated their willingness to speak to the researcher by ticking the appropriate box on the questionnaire form (section 3L). They were conducted in 15 schools drawn from the two LEAs used.

The format of the semi-structured interview began with general questions about overall difficulties, timing, and layout, then moved to addressing each section in turn. As part of this second stage designated questions were asked about some of the sections, which had arisen as areas of particular interest from the initial analysis of the results. Section 2, on teaching style, and section 3 with the emphasis upon sub-sections b, d, g, i and j were the subject of specific questions designed to explore the teachers' understanding of the questions. This was done in a number of ways, which included asking teachers to describe the conditions for which they gave their particular numerical response, describe the way in which they defined specific words (for example 'realistic' and 'special educational needs'), and describe the things which they had considered in coming to a firm decision to tick a particular box. The interview concluded with an invitation to raise any points which had not been covered, or return to any which the teacher felt had not be adequately dealt with.

Although 21 interviewees were asked to comment on the questionnaires, only 14 of these were in the extended format above: seven with headteachers, six

with teachers, and one with a group of four teachers. Usually where the format was truncated it was because of pressure of time since the complete procedure took somewhere between 20 and 40 minutes. A condensed collation of the results is presented in the Appendix page 52, and a discussion of them in pages 131 to 135.

In summary a wide range of responses was received to both general and specific questions. Comments can be usefully grouped as those which merely affirm the original (ticked) response, those which offer some sort of rationale or justification for it, those which (on the face of it) are not directed to the completion of the questionnaire, those which describe difficulties experienced whether from understanding the question or being able to offer an answer, those which help to define the meanings placed on the terminology, and those which help to clarify the way in which teachers employed the scales.

With slight exceptions the responses tended to support the interpretations used in the analysis, and showed that teachers had little overt difficulty in completing them. Some of the comments are valuable to both further interpretation of the questionnaire data and to the analysis of the 'school example' data. Two problems are isolated which could have some implications for any further questionnaire design which might arise from this study. The first springs from the dilemma some teachers felt in answering class-based questions, and suggests that either the form should attempt to define an appropriate and consistent stance, or more likely that a modified form of these questions should be given to headteachers. The second concerns the 'special educational needs' section and the reluctance which some teachers felt in assigning greater importance. Perhaps a better form of question would have talked about different ways of using such pictures for children with special educational needs.

CHAPTER FIVE

RESULTS OF THE SURVEY

Teachers were asked to respond to the questionnaire in two ways, ticking boxes and offering open comments. Since the techniques of analysis are radically different the results for each of these will be presented separately. First the more statistical data will be examined and discussed, then the free comments. Apart from the clustering inherent in the questionnaire design it is useful for this analysis to recognise a further grouping in terms of whether the questions are (a) reported ways of behaving in the classroom, (b) opinions of what constitutes good practice with pictures as learning adjuncts and (c) observations of children's relationship with pictures.

Independent variables

In the main the independent variables are taken as the age and experience of the teachers; the number of children in their class; the way in which their classes are organised in terms of class or team teaching; their status; whether teaching arrangements are open-plan or closed; the extent to which the timetable is differentiated; the degree of advance planning normally undertaken by the teacher; the extent to which teachers allow children to make curricular decisions; the extent to which work is aimed at the 'basic-subjects'; and the amount of general dependence upon pictures reported by the teachers. Answers to the remaining questions have largely been regarded as dependent variables.

Before moving to the main results it is worth examining the extent to which there were significant correlations between the independent variables.

It is not surprising that the teacher's experience, reported in years, correlated with their status ($\tau = .20$, $P < .0001$).

The age of children taught negatively correlated with general dependence upon pictures ($\tau = .14$, $P < .01$) such that teachers of younger children were less dependent upon pictures in their teaching. It correlated with none of the other independent variables, which may be seen as surprising in the case of open/closed classrooms, and team/class teaching. Common observation might suggest that at least reception classes might tend to use both open plan and team teaching.

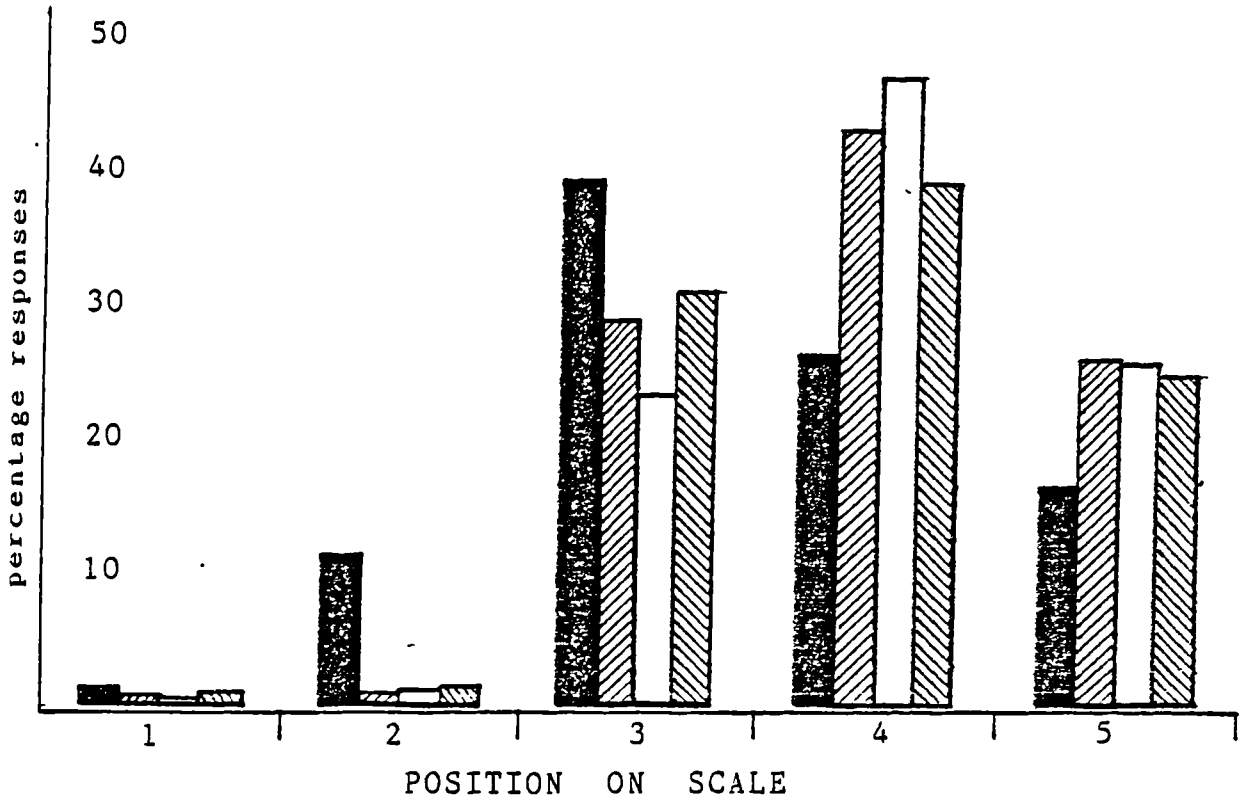
The number of children in the class bore no significant relation to other independent variables. It should be remembered that a formula was suggested to respondents so that team teaching did not offer a false correlation with number of children in the class.

Team/class teaching correlated positively with the emphasis placed on basic subjects. Hence teachers who placed a greater emphasis upon basic subjects tended towards class rather than team teaching, ($\tau = .13$, $P < .01$). The status of teacher showed a slight negative correlation with the emphasis being placed upon basic subjects, so that teachers of higher status were slightly less likely to place the emphasis in this way ($\tau = .95$, $P < .05$).

The open plan variable correlated with three of the teaching style variables. Teachers who differentiated the timetable ($\tau = .92$, $P < .01$), teachers who make classroom decisions themselves rather than permitting the children to do so ($\tau = .17$, $P < .001$), and teachers who place the emphasis upon the basic subjects ($\tau = .15$, $P < .001$), all tended to teach in a closed rather than open plan context.

DIAGRAM 1

Frequency of responses for questions in 'Teaching style' section, as percentages of total responses.



KEY

- integration - differentiation of timetable
- ▨ spontaneous - deliberate planning.
- child - teacher determination.
- ▩ other - basics focus of work.

Things concerned with describing the school as a whole were taken as background factors, since the focus of the survey was the individual teacher. Consequently, size of school, location in terms of Durham or Leeds LEA, and type of school, i.e., primary, first or infants, were examined mainly to establish that a balanced sample had been achieved. No significant correlations were noted between these and dependent variables.

Reported ways of behaving in the classroom

1. Teaching style

Four questions were grouped under the heading of 'Teaching Style'. These concerned differentiation of timetable, planning, allocation of decision making power and focus upon basic subjects. Diagram 1 shows that there was a remarkable similarity of response, especially among the last three.

The distribution of frequencies illustrated by the diagram is remarkable in its similarity between these variables. Unlike other independent variables these were generated on the expectation of relatedness. For this reason separate analysis was conducted to establish the extent to which they intercorrelated. A non-parametric analysis using Kendall's Tau correlation coefficients was employed. The results are presented in Table 1. (see Appendix page 32 for explanation of code terms).

Table 1

Correlations between 'teaching style' variables

Variables	Kendall's Correlation Coefficient	Number	Significance
TDIFF with TPLAN	.34	367	P<.00001
TDIFF with TDEC	.38	365	P<.00001
TDIFF with TBASIC	.34	365	P<.00001
TPLAN with TDEC	.42	368	P<.00001
TPLAN with TBASIC	.29	368	P<.00001
TDEC with TBASIC	.35	367	P<.00001

The high level of correlation existing between these variables not only supports the view that these teaching qualities are related in practice, but also suggested a composite variable combining all four as a useful additional measure for the analysis. Accordingly a new variable, coded TSTYLE, was generated using the mean of the computed scores of the four. In the following pages this variable will be referred to as 'teaching style'.

2. Teachers' classroom uses for pictures

Table 2 sets out the frequencies of responses for the set of questions which reported the teacher's classroom practice in using pictures.

When the term 'sometimes' is taken together with 'constantly' and 'often' it is clear that the large majority of teachers use pictures in a wide range of different ways. There are, however, some surprises, which indicate that teachers' perceptions of the part that pictures can play in the curriculum is more varied than work with the exploratory

group suggested. For example, it is surprising that as great a proportion as 18% of teachers should rarely or never use pictures to stimulate emotional responses. Even more extreme, but perhaps more easily understandable, is the finding that the great majority of teachers rarely or never use pictures as a reward. This is to some extent at odds with the replies that teachers gave to questions about display.

Table 2

Frequencies of response as percentages of total for uses of pictures in the classroom

Uses for picture	Constantly or often	Sometimes	Rarely or or never
	%	%	%
Stimulating language	78	21	1
Stimulating thought	77	22	1
Introducing topics	75	23	2
Vicarious experience	69	28	3
Word/letter recognition	67	26	7
Helping memory	55	38	7
Classroom decoration	55	27	18
Aiding attention	50	38	12
Stimulating emotions	30	50	20
Giving answers (pupils)	29	44	27
Giving instructions	28	43	29
Substitute for words	21	37	42
Giving reward	8	14	78

Table 3,* illustrating significant correlations between dependent and independent variables shows that only the teaching style group of variables correlates significantly with uses for pictures, and that they do so in a striking way. A commonsense view of variations within infant practice might lead to the belief that the age of the children taught would have produced significant differences, at least in terms of such activities as word recognition, or using pictures as a substitute for words, but in the event this is not the case.

Similarly, one might have expected some correlation to be visible between years of experience and this sort of classroom practice but none emerged. By contrast the extreme potency of some of the teaching style variables seem equally anti-commonsensical. Teachers who differentiate their timetables more report themselves as using pictures more in respect of almost all the functions covered. Similarly, teachers who plan work more deliberately claim to make more use of pictures for stimulating language, for decoration, as a reward, as a way of giving answers, as an aid to memory, and as a way of giving instructions. Something similar is true for the other teaching style variables.

It is useful to look at the computed total teaching style variable at this point. Teachers who score highly on this claim greater use of pictures in respect of all the functions listed except letter recognition, vicarious experience, stimulating thought, and stimulating emotions.

*Table 3b in the Appendix (page 49) gives the values for each of the correlations shown as significance strength in table 3.

TABLE 3

Levels of significance of correlations between dependent and independent variables.

	classroom uses for pictures	effect on development	general preference	preference varies with use
teaching experience	stimulating language classroom decoration word recognition vicarious experience substitute for words topic introduction stimulating thought reward giving answers (pupils) aiding memory aiding attention giving instructions stimulating emotions the basic skills	intellectual autonomy intellectual competence personal social/moral spiritual/religious cultural	photographic or not high/low detail coloured/black & white figurative or abstract primary/subtle colours sharp/vague definition tonal/line drawing exotic/familiar content much/little movement many/few objects metaphorical/obvious	photographic or not high/low detail coloured/black & white figurative or abstract primary/subtle colours sharp/vague definition tonal/line drawing exotic/familiar content much/little movement many/few objects metaphorical/obvious
age of children				
number in class				
status of teacher				
team/class teaching				
open/closed classroom				
differentiated/integrated				
prior spontaneous planning				
teacher/child determination				
basics/other focus of work				
teaching style				
dependence on pictures				

	wall displays	children's under-standing	teacher made pictures	pictures in early reading	comments given (number)
teaching experience	systematic storage decoration/information adult/child work many/few themes adult/child selection reward/instruction complete/incomplete inference identification conventions interpretation use of context cues shift attention ignore incidentals increase relevance save time identify with artist scale can vary excites admiration distract from text context cues only named objects realistic mode usually motivate whole story reinforcement special needs				classroom uses storage display special needs techniques general
age of children					
number in class					
status of teacher					
team/class teaching					
open/closed classroom					
differentiated/integrated					
prior/spontaneous planning					
teacher/child determination					
basics/other focus of work					
teaching style					
dependence on pictures					

KEY

- significance, P is less than .05
- ▣ significance, P is less than .01
- ⊗ significance, P is less than .001
- ⊠ significance, P is less than .0001

It is possible that the solution to understanding the connection may hinge upon the concept of 'use' itself. High 'Teaching Style' teachers might justifiably be characterised as not only more deliberate but more analytical about the teaching process, whereas teachers who score low on 'Teaching Style' are more holistic in their concept of the teaching process as well as seeing their role as more facilitative than instructional. The point is that high 'Teaching Style' teachers might simply find it easier to envisage their use of any materials in the compartmentalised way expected by the questionnaire and consequently are more ready to account for themselves in this mode of reporting.

It is notable that the teachers' score for general dependence upon pictures does not correlate with scores in this section.

Questions of opinion

1. The contribution of pictures to development.

Teachers were asked to report their opinion on a five point scale of the contribution which pictures made in their classrooms to specific areas of development. Table 4 presents the frequency of responses computed to three points. That is to say indicating responses on, above, and below the mean. This enables comparisons between areas to be more readily seen.

The wide discrimination between different areas of development is particularly notable because in interview follow-up of the questionnaire, respondents reported that this was the group of questions which they found most difficult to answer decisively.

Nevertheless the degree of discrimination does appear to be decisive. One may postulate two reasons for the particular order shown. First it might reflect the degree to which developmentally targeted commercial material is more or less pictorial.

TABLE 4

Frequencies of response as percentages of total for 'contribution of pictures to development'.

area of development	entirely or a great deal	to some extent	very little or not at all
	%	%	%
Basic skills	58	33	9
Cultural	52	43	5
Intellectual competence	38	55	7
Personal	23	51	26
Intellectual autonomy	15	57	28
Social/moral	15	47	38
Spiritual/religious	15	45	40

Second it might be the case that teachers were really answering in terms of the importance which they attribute to particular areas of development hence the general emphasis placed upon them in their classrooms.

The latter may be tested by looking at the correlation which exists between the question about basic skills development and the way that teachers differentially report themselves on the teaching style variable concerned with generally placing the emphasis on basic skills or otherwise. It might be expected that teachers who score themselves highly for generally emphasising basic skills would score highly in

terms of their opinion on the contribution of pictures to basic skills. Complementarily one might expect to find teachers who emphasise other aspects of the curriculum might place more weight upon other aspects of development say cultural or social/moral. Upon analysis it turns out that there is a weak correlation with the first ($\tau = .12, P < 0.05$) and none with the second. It may be also argued that it is supported by more experienced (hence older) teachers placing a greater emphasis upon the spiritual/religious area of development ($\tau = .17, P < .001$). However, this is a somewhat tenuous connection.

The former hypothesis may be said to be supported by teachers of younger children placing a greater emphasis upon the contribution of pictures to the development of basic skills ($\tau = .22, P < .0001$) since it may be argued that the materials for teaching basic skills to younger children do tend to be more reliant upon pictures than those for older infants. However, since there are also positive correlations (although slight by comparison) with both personal development ($\tau = .12, P < .05$) and cultural development ($\tau = .12, P < .05$) the claim is not clearly sustained.

It is likely that the factors influencing choice in this area are much more complex than the above hypotheses allow, since other significant correlations refuse to conform to either argument, i.e., teachers with larger numbers of children in their class rate the contribution of pictures to cultural development more highly ($\tau = .15, P < .005$), and teachers who score highly on the combined Teaching Style variable tend to consider that pictures make a greater contribution to social/moral development ($\tau = .14, P < .005$).

Much more easily explainable are the high correlations between how highly teachers rate themselves on general dependence upon pictures and their views on the contribution of pictures to each area of development listed. Each area shows a positive correlation with a significance of $P < .0001$. It is to be expected that teachers who are highly dependent upon pictures will consider the development of their children in all areas to be more dependent upon pictures. The clear way in which this relationship is picked up by the statistics is arguably indicative that at least this part of the questionnaire was both understood and thoughtfully answered by teachers.

2. Preferences for pictures.

Table 5 shows the percentage responses collapsed to a three point scale to distinguish those who tended to either end of the scale from those who either remained neutral by ticking the mid point, or by ticking the 'preferences varies with use' box. They are ordered in terms of strength of preference as opposed to neutrality expressed. It is interesting that only three of the questions have a majority of teachers expressing a clear preference, i.e., the coloured/black and white, figurative/abstract, and sharp/soft definition dimensions. However, it is to some extent surprising that any questions should attract such strongly stated preference in view of the option to tick the 'preference varies' box, which may be seen as expressing the professionally discriminating view that the picture must fit the educational purpose for which it will be used.

TABLE 5

Responses, expressed as percentages, to the 'Preference for Pictures' section, with five point scale collapsed to three.

				Preference varies according to particular use it will be put to
coloured		black + white		
71	6	1		22
figurative		abstract		
60	8	0		32
sharp definition		soft definition		
56	9	0		35
metaphorical		obvious		
2	11	46		41
fully detailed		undetailed		
35	13	2		50
primary colouring		subtle colouring		
31	21	5		43
fully tonal		line drawing		
28	17	2		54
photographic		non-photographic		
26	14	4		56
unusual content		familiar content		
1	10	28		61
full of movement		no movement		
24	13	1		62
crowded with objects		showing single object		
3	13	9		75

With the exception of the crowded/single object question, there is strong agreement shown. On the basis of these results it would be quite acceptable to claim what would appear to be a gross generalisation, i.e., that where infant teachers have a preference it is for pictures which are strongly coloured, figurative, sharply defined, of obvious meaning, fully detailed and photographic, of familiar content and full of movement. This is a specification which fits many of the pictures commercially produced for teachers, for example those in 'Visual Education'. This may be taken at face value as a creditable sensitivity of commercial suppliers to teachers' wants, but one may also question whether preference is being followed or led in this instance. It may be noted that neither a Henry Moore sketch nor many of the children's or teachers' own drawings would conform to these preferences.

It is not surprising that by and large teachers are more willing to express a general preference in terms of the mode or style of the picture rather than its content where the option to elect for a preference which varies with use is more common, since the use of pictures is more often concentrated upon what is being shown rather than how it is shown.

Only two of the independent variables correlate with dimensions of preference in a notable way. The number of children in the class is the most prominent where teachers of larger classes more strongly prefer high detail, colour, and figurative pictures, but these are of slight significance (tau ranges from .10 to .16, $P < .05$) and it is only the pattern which makes them notable. Size of class does, however, also correlate more strongly with tonality, in that teachers of larger classes prefer fully tonal pictures more strongly than teachers of smaller classes (tau = .22, $P < .001$).

This relationship between class size and pictorial preference is difficult to account for. Teachers who place a stronger emphasis upon basic subjects also tend to prefer familiar content to exotic content more strongly than others.

Although little correlates with strength of preference itself the extent to which preference is linked to educational uses is a very different story. Here an extremely pronounced pattern is evident (Table 3) which relates it to many of the teaching style variables. The differentiation/integration dimension is the most striking of these in that it correlates negatively with all but one of the questions; the exception being the question concerned with movement in pictures. For the remaining ten questions teachers who differentiate their timetables tend to base their preferences on particular educational uses to a lesser degree than those who integrate the timetable. Significances for Kendall's correlation vary from $P < .05$ to $P < .0001$ (tau ranges from .09 to .17). It is worth noting that of all of the teaching style variables this is the one which might be most easily influenced by school policy rather than individual teacher choice.

Similarly the computed variable 'Teaching Style' also correlates negatively with nearly all questions. The strength of correlation with regard to some of the questions indicates that this is more than just the influence of the differentiation/integration dimension (see table 3 and 3b). It is considerably stronger in the case of three of the questions. In each case teachers who score highly for 'Teaching Style' tend to be more ready to plump for a general preference than others.

Teachers who place the emphasis upon basic subjects show significant correlations with six of the questions, and teachers who more strongly determine classroom activity themselves correlate with four. In all cases these are negative correlations. The exception to this pattern is teachers who do more advanced planning where the correlations are weak (tau ranges from .09 to .11, $p < .05$).

On the basis of these results it may be said that teachers who differentiate their timetables, emphasise basic subjects, and take activity decisions themselves, are less likely to tie their preference in pictures to particular classroom uses. Although less pronounced the opposite appears to be the case for teachers who report themselves as highly dependent upon pictures in their teaching. For four of the questions they tend to be more likely to tie preference to use.

3. Wall Displays.

The responses to questions in this section are shown in table 6, arranged according to strength of expressed opinion. With the exception of the question on whether work should be mainly children's or adults' there is less unanimity than was evident for picture preference. However, by the same token there is only one question, that on the main use being for instruction or reward, which approaches a balance of opinion. On the whole high levels of agreement are expressed.

TABLE 6

Responses to questions in 'Wall Display' section expressed as percentages with five point scale collapsed to three.

children's work	82	17	1	adult work
few themes	68	23	9	many themes
complete	61	27	12	incomplete
teacher selects	56	37	7	children select
informational	37	58	5	decorative
instruction	28	59	13	reward

N.B. Full descriptions of the scales may be seen by reference to Appendix page 38.

It may be that taken together with the responses to picture preference a dilemma is revealed. The preferences all tend towards those pictorial qualities which characterise high fidelity adult work, yet almost all the teachers elect that the main component of displays should be children's work. A possible resolution, to the effect that the qualities referred to in the preference section are those suitable for general instructional uses, whereas the purpose for displays is different, is not born out by the present result, where the majority feel that displays should be both informational rather than decorative and for instruction rather than reward.

Only two of the independent variables make noteworthy correlations with questions in this section. Most prominent is teaching experience which correlates with four separate questions. These correlations reveal that more experienced teachers are less likely to feel that displays should be mainly children's work, less likely to see the purpose of display as reward, less likely to feel that children should be involved in the selection and arrangement of displays, and less likely to feel that displays should be complete. Teachers who tend to differentiate rather than integrate the timetable are more likely to see the main purposes of display as decorative rather than instructional.

4. Children's understanding of pictures.

In that the questions in this section derive directly from those areas of perceptual development identified experimentally as incomplete or absent over the infant years the results stand astride the research/practice continuum. How one summarises and interprets the responses (see table 7) depends to a large extent upon what is made of the response 'partly'. If on the one hand it is taken to mean that teachers have detected shortcomings in the particular accomplishment, or that it is notably incomplete, then one might argue that on every question there is a majority agreement with research findings. On the other hand, if one interprets 'partly' as a claim that children can do the thing in question but not on every occasion, or that some of the class can do it entirely but others not (even though this contravenes the specific advice offered with the question it is still a possibility) then there would be a marked disagreement with research. Either way it is arguable that the teachers' perception of the children's accomplishments are more positive than those of research.

Since these are developmental features any results should be age related. In the event age of children taught does correlate significantly with two of the questions, i.e., understanding conventions used to depict movement, and the interpretation of pictures metaphorically ($\tau = .21, .25, P < .0001$ respectively). There are correlations with two other questions, but at a much less significant level, i.e., the identification of familiar objects from unfamiliar views, and the use of context to identify ambiguous objects ($\tau = .08, .17, P < .05, \text{ and } P < .01, \text{ respectively}$).

TABLE 7

Responses to 'Children's Understanding of Pictures' section shown as a percentage of total responses.

	NO	PARTLY	YES	DON'T KNOW
Infer psychological states of subjects	3	53	39	5
Voluntarily shift attention from part to whole	6	43	38	13
Identify familiar object from unfamiliar view	10	64	10	16
Ignore incidental information in pictures	11	49	31	9
Use context to identify ambiguous objects	15	55	8	22
Understand conventions used to depict movement	19	48	16	17
Interpret pictures metaphorically	40	32	2	26

N.B. The exact text of questions can be seen in the Appendix page 39.

There is no detectable relationship between the remainder and the age of the children taught. Taken at face value this would seem to be at variance with research.

Using these results as a way of determining teachers' agreement with general research findings must acknowledge possible difficulties arising from the terminology used. This section is unique within the questionnaire in that the questions are not framed by reference to the exploratory group, but are taken more or less directly from research (Goldsmith, 1984). Whilst the words themselves are not particularly technical the actions or accomplishments which they describe are sometimes rather specific, in such a way that beyond the laboratory they might be difficult to isolate and observe. This factor varies between questions, and although it was one of the things to receive particular attention in the follow up, it is also possible to say something about it on the basis of the results themselves.

The degree of uncertainty expressed may throw some light upon it. That is to say the proportion of teachers reporting themselves as 'don't know', as opposed to those offering a firm opinion (see table 8).

There is some variation within the questions in this respect: from 5% in the case of 'inferring psychological states' to 26% in the case of 'interpreting pictures metaphorically'. At these extremes it is possible to maintain that the uncertainty springs mainly from difficulties in understanding the questions. Especially since the latter was most often identified as difficult to understand during the follow-up interviews.

TABLE 8

Significance levels of correlations between independent variables and questions recoded to show 'certainty'.

	children's under- standing	teacher made pictures	pictures in early reading
inference			
identification			
conventions			
interpretation			
use of context cues			
shift attention			
ignore incidentals			
increase relevance			
save time			
identify with artist			
scale can vary			
excites admiration			
distract from text			
context cues			
only named objects			
realistic mode			
usually motivate			
whole story			
reinforcement			
special needs			
teaching experience			
age of children	.		
number in class			
status of teacher	/	.	
team/class teaching			
open/closed classroom	.	.	
differentiated/integrated	.		
prior/spontaneous planning			
teacher/child determination		.	
basics/other focus of work			

KEY

- significance, P is less than .05
- significance, P is less than .01
- significance, P is less than .001
- significance, P is less than .0001

However, this is less easy to maintain as an overall pattern when one notes that the next pair of extremes is 'ignoring incidental detail', and 'using context to identify ambiguous objects'. In this case an explanation based on difficulty of making the observations seems more convincing. In the follow-up interviews teachers demonstrated a large measure of understanding of each of these, but did indicate some difficulty in isolating an observation from normal classroom events.

TABLE 9

Responses to questions in 'Teacher-made Pictures' section, shown as percentage of total responses.

AN IMPORTANT VALUE OF TEACHER-MADE PICTURES IS THAT:-

	agree	undecided	disagree
The scale of the picture can be varied to fit in with the particular use intended for it.	88	10	2
They can be made more relevant to the children's needs and experience than commercially produced pictures.	77	16	7
Any skill demonstrated by the teacher excites admiration in the children, and so helps to build relationships with them.	58	26	16
The children's art will benefit because they will identify with an artistic teacher, seeing picture-making as a normal activity even for adults.	56	29	15
They save time in looking for appropriate pictures elsewhere.	41	23	36

5. Teacher-made pictures.

Although the questions in this section are specifically directed towards pictures, some do have implications for the production of teaching materials and resources in a wider sense. For example answers to the question on 'relevance' may be seen as making reference not only to the relevance of teacher-made pictures to children's needs, but also something of the value of such relevance itself to the educative process. Table 9 shows the levels of agreement. A high measure of agreement is shown in terms of the two questions focussed on the ability of teacher-made pictures to fit curriculum intentions more precisely. Noticeably greater disagreement and indecision is encountered in relation to the two questions which concern themselves with the personal identification implications of a teacher demonstrating artistic skills. A more equitable balance of opinion is evident in relation to the more practical question of whether making pictures saves time as opposed to looking for appropriate pictures elsewhere. There is a logical link with the question on 'relevance' in that the amount of difficulty likely to be experienced in looking for pictures will vary with the precision of one's demands. In other words finding more 'relevant' pictures will be more difficult.

Of the slight correlations which are visible (see Table 3b, Appendix) those with teaching experience are mentionable in that there are two slightly significant correlations ($\tau = .13$ and $.14$, $P < .01$) with two of the questions. Similarly the computed variable 'Teaching Style' shows slight correlations with three questions.

6. Pictures in early reading books.

Table 10 shows the frequencies of responses to this group of questions.

TABLE 10

Responses to questions in the 'Pictures in Beginning Reading Books' section, shown as percentages of total responses.

	agree	undecided	disagree
Pictures are essential in all reading books, because of the context cues they offer the reader.	92	5	3
Good pictures will usually motivate the child to begin reading.	84	13	3
Properly controlled, pictures in beginning reading books can be used to reinforce (reward) each successful page read.	74	20	6
Pictures in beginning reading books should be realistic, with much incidental information.	57	22	21
Pictures in beginning reading books should only show the objects that are directly named in the text.	29	19	52
If the picture tells the whole story, the child will not be encouraged to read the text for further information.	13	20	67
In the earliest stages of reading pictures distract attention from the text, and consequently inhibit the development of sight vocabulary.	2	7	91

It is clear that, in contrast with the questions relating to teacher made pictures, these are controversial in that the spread of agreement and disagreement is more marked. At the extremes the 'context cues', and 'pictures acting as distractors' questions represent almost unanimous agreement and disagreement respectively. Since they are largely opposite in their support for or against the inclusion of pictures in beginning reading texts it may be taken as a mark of consistency of response that they should be polarised in this way.

It is interesting to note that the three questions which provoke greatest disagreement are those which are influenced by research findings. They are also characterised by suggesting, at one level or another, that there are characteristics of pictures that are not necessarily or universally good in the early reading context.

Such correlations as exist between the independent variables and this set of questions are weak and do not produce patterns which might be interesting in themselves. The computed 'Teaching style' variable shows a slightly stronger correlation with one question; the one which suggests pictures should refer to named objects only ($\tau = .18$, $P < .001$). In this case the higher the teaching style score the more likely teachers were to agree.

The data were recoded so that they indicated the teacher's degree of certainty by computing 'agree' and 'disagree' as a single value as opposed to 'undecided'.

Associations produced from this (see table 8) suggest that teaching experience produces greater certainty for three of the questions, i.e., pictures usually motivate ($P < .001$), pictures distract from the text ($P < .05$), pictures should be realistic ($P < .05$). Teachers who differentiate their timetable also show more certainty in answering the question concerned with pictures telling the whole story.

7. Pictures and special educational needs.

59% of teachers agreed that pictures were more important for teaching children with special educational needs than other children, 19% disagreed and 22% report themselves as undecided. The follow up interviews suggested that many of those reporting themselves as undecided were expressing the view that pictures were important for children with special educational needs, but not necessarily more so than for other children. They avoided the 'disagree' category lest it should be mistaken for the opinion that pictures were not important for children with special educational needs. This had the effect of inflating the 'uncertain' category at the expense of the 'disagree' category. It is notable that in the follow-up interviews all those who reported themselves as disagreeing were at pains to point out that this did not mean that they valued pictures less for children with special educational needs, but simply not more than for other children. Several (9) teachers marked their questionnaires to that effect too.

There was a slight tendency for teachers of greater experience to disagree more than others ($\tau = 1.3$, $P < .01$) while teachers who reported themselves as highly dependent on pictures tended to agree more ($\tau = 1.7$, $P < .001$). Recoding to measure uncertainty as opposed to either agreement or disagreement revealed that team as opposed to

class teachers were more likely to report themselves as uncertain ($P < .01$) whilst teachers who reported themselves as deliberate planners showed the opposite tendency ($P < .001$).

8. Teacher qualities.

Another way of viewing the results, which is perhaps best revealed in tables 3, 3b and 8, is the extent to which teacher qualities, as represented by the independent variables, interact with groups of questions.

Teachers' experience has few correlations with their classroom behaviour or observations of children's relationships with pictures. There are, however, visible if slight relationships with questions of opinion concerned with good practice, i.e., effects on development, wall displays, teacher made pictures, and pictures in early reading, but in this last case it is mainly to do with confidence in answering.

The age of children taught mainly correlates with two groups of questions, effects on development and children's understanding of pictures. The number of children in the class shows slight, but detectable, connections with effect on development, and general preference for pictures. The status of the teacher seems to influence only the confidence with which answers are given in relation to children's understanding of pictures, and the early reading group of questions.

Whether the organisation is team/class or open/closed are similar in that they correlate with none of the groups of questions in a striking way.

Taken as a group the four teaching style variables together with the computed variable 'Teaching style' relate in a notable way with classroom uses for pictures and with the extent to which preferences for pictures are tied to specific educational uses. Among the four the differentiation/integration dimension makes the widest spread of correlations, making some connection with opinions on wall displays, children's understanding of pictures, and teacher made pictures. This is also true for 'Teaching style' as a computed variable, possibly as a consequence.

General dependence on pictures correlates strikingly with all the questions concerned with the influence of pictures on child development, and has a lesser relationship with whether preference must be tied to educational use, and the place of pictures with children having special educational needs.

Written comments made on the questionnaire form

About 14% of respondents offered written comments, but since there was a clear tendency for those who did so to make several the total number of comments made (298) is surprisingly large from a comparatively small portion of the sample.

The bulk of the comments can be conveniently divided into three types; those which were made in response to invitations within specific sections of the questionnaire (five sections issued such an invitation), those which offered general observations not related to a particular question or section, and unsolicited comments which condition or modify answers given by ticking boxes. In some cases comments in this last category offer reasons for not completing a question or section. In addition there were a small

number of comments which directly related to the design of the questionnaire itself.

What follows is an attempt to represent the comments in terms of their main direction, patterns evident within them, and exceptions to those patterns. It is appropriate to begin by looking at comments made in relation to specific sections of the questionnaire since this contains some of the most unequivocal observations.

1. Uses of pictures in the school and classroom.

Comments which contribute to this heading are mainly those made in response to Sections 3(a) and 3(k) but a few did appear elsewhere on the questionnaire. The majority of comments which were clearly intended to be additional to the functions detailed in section 3(a) came in the form of named 'subjects'. Although not always stated, the implication is that they are subjects where pictures are an especially valuable aid. These were religious education, nature, topic work, number work and maths, current affairs, road safety and health education, with the last two being the most frequently mentioned. In this list no mention was made of how pictures contributed to the subject, but other subjects were mentioned where pictures were specifically assigned an introductory or 'stimulating' role. This is not quite the same set of subjects but does have topic work and maths in common. Other subjects mentioned in this way were history, classical music, art, creative work and free writing. Most often the 'stimulating' tag was attached to more specific activities than whole subjects, i.e. uses of imagination, descriptive language, building number concepts, knowledge of multicultural aspects, drawing, formulating sentences and memory.

Some of the functions added as comments differ from those printed in this section mainly in terms of the words chosen to express them: more semantic than practical differences. For example, it seems probable that 'To demonstrate something that cannot be accurately described in words' differs little in meaning from the function given in the section (iv), 'To enable children to experience things that the classroom would otherwise be unable to provide'.

Some comments in this section might be seen as refinements of functions given; as either explications or extensions of them. In this category come the following. As a means of explaining things, with examples being posters on how trains, car engines, and sunshine work; as an illustration of stories, songs and poems; as a subject for descriptive work, stories, discussion and creative work (old masters were particularly mentioned in this context), and as a reinforcement for both words and number. Other functions mentioned are clearly quite different from those given in the questionnaire. Prominent (five mentions) among these is the idea of pictures as a model for emulation; an idea which is used in two ways. First, where pictures are used as a source for direct copying of one sort or another. Here, 'setting standards' or 'giving ideas' might be mentioned as related functions. Second, and somewhat more subtle, as a model for emulation for the development of moral or social awareness. An interesting example of this is given by one teacher who reports using pictures of children 'working well and behaving well' as an example to show 'what is required and what is admired'. She describes some of the phrases that would be used as 'Let's look at this neat work' and 'see this careful movement work'.

The use of pictures as an aid to educational monitoring is mentioned by a few teachers (3). For example, 'If a child can draw what he thinks mathematically, I know that he knows it'. Since she is talking about the child making pictures this is not directly a question of pictorial literacy. Yet the implication that pictures can represent mathematical ideas in a way that words cannot is clearly related to it.

Notwithstanding question (xiii) 'To stimulate emotional responses' some teachers mentioned, as additional functions, things of an affective, or in some cases, aesthetic nature. For example giving enjoyment, creating a cheerful atmosphere and giving children a feeling of belonging or identification with the classroom. In most cases this is principally concerned with the children's own work, but not in all. On a more intimate level, two teachers separately report the value of pictures in encouraging shy or quiet children to talk. This is based on the claim that when both teacher and child are addressing a picture there is less emotional pressure than in direct face to face encounters.

Yet another variation on the use of pictures for affective support is given by a teacher who uses pictures to help children over social problems in the classroom by talking with them about similar problems being experienced by children in pictures. In some ways this is not unlike the bibliotherapeutic method described by Butcher (1980). Social development is also the concern of the teacher who describes the value of pictures in enhancing role play, although no details are offered of how they are used to this end. It is notable that only one teacher chose to mention using works of art to direct affective ends. It is notable in that the art world itself, and doubtless those concerned

with picture loan schemes, would claim that works of art are intended to have an immediate emotional impact. In the single case in question the reference was to 'Having empathy with the artist'.

A number of teachers (9) chose to report functions of pictures in terms of the type of picture in format terms. Commonest of these was the mention of sets of picture cards. Teachers report that such sets have a range of different classroom uses. These include initial letter activities, whole word activities (a common one being word/picture matching), naming objects, sentence construction, classifying, and looking for logical links (for example, 'crown' and 'castle'). The principal virtue of them being in a card format appeared to be that they could be more readily used in games. Two teachers commented that some of the above uses were tied to guessing games with only 'yes/no' answers.

Undoubtedly the most common related learning area linked with the use of pictures was language in one form or another. About two thirds of all comments made about the uses for pictures concerned language. Several examples are given of pictures being using to encourage the development of spoken language. These include 'I spy', using pictures (with the note that busy pictures are best); pictures on a flannelgraph where children can move the elements about as they talk about them; and small group work where a picture is partly covered and is gradually uncovered in a step by step fashion to generate discussion. The teacher reporting this last approach notes that it might, or might not, lead to written work.

Using pictures as a focus for discussion is very commonly reported. Few teachers expanded this comment, but one or two did give more detail of particular ways of employing pictures to this end. One of these concerned using a picture of a sectionalised lighthouse to discuss interior decoration, and another reported using an aerial representation of a seaside town to develop discussion about everyday dangers, and places to avoid. This latter was not an original idea in that the safety poster is produced by the health education council with this use in mind.

Some teachers couple listening skills with oracy. One of these describes an approach in which the children work in pairs, one of whom has a concealed picture which he/she describes in detail to the other who attempts to draw it. They then both compare the drawing and the original picture and discuss similarities and differences. She notes that occasionally the same picture can be used with several groups when it may lead to wider discussion. In some ways this approach is not unlike 'Concept 7-9', but seems to have greater flexibility, and offers opportunities to make children's everyday experience more central.

Pictures as an aid to beginning writing figure in a number of replies, often referring to processes which lead from discussion to writing. A few specific approaches were mentioned. For example the idea of covering picture cards with plastic to enable the children to write the names of objects on the surface with Chinagraph pencils. Another idea owes something to the 'language experience' approach to beginning writing. This involves the child first selecting a picture from a collection, then talking to the teacher about it. The teacher writes down the child's description of the picture using the child's own words

in the form of a brief 'story'. He/she goes on to copy (trace) this before telling it back to the teacher. Finally a 'book' is produced by folding a sheet of paper which has the picture on one page and the child's copy of the 'story' on the facing page. This becomes the property of the child who will use it to retell the story to the teacher and other children.

For reading, many teachers note that they begin with textless picture books. Those who mention the value of such books present them as a way of developing reading readiness.

A fairly common comment (6) is that pictures help the development of 'imagination'. One activity reported by three teachers, which is pointed to this end, might be termed the 'what happened next' approach where the child is invited to project future happenings on the basis of what they see in the picture. One teacher reports an interesting variation on this theme in which he gives the children 'partial pictures' which they are asked to extend (or complete) in whatever way they choose, which may involve drawing, writing, talking and so on. His main use of this approach is diagnostic, in that he uses the information from the children's responses to categorise the child's thinking processes (on the face of it not unlike 'learning style') so that he can vary planned lesson formats accordingly. The main dimension which he considers to be illuminated by this process is the extent to which individual children are 'verbalisers' or 'visualisers' (imagers).

2. Teacher-made pictures.

Section 3(h) of the questionnaire asks teachers to comment on the value of teacher-made pictures. Several teachers chose to remark on ways in which photography contributed to their work. The commonest approach mentioned (5) was taking photographs on school and class visits to aid recall and prompt further work. Two teachers used photographs of local danger spots to make lessons on road safety more relevant to the children's experience, and two others reported that photographs of the children themselves were useful in language work.

Particular uses were also offered for teacher-made drawings. Several teachers mentioned the idea of using simple sketches to replace words which were likely to provide difficulty. Sometimes this was a preparation activity on the basis of the teacher's existing knowledge of an individual child's reading stage. Others mentioned it as a more interactive approach where the sketch was provided in a remedial way after the child had failed to read a particular word. One teacher reported sending the word, sentence and sketch home so that it could be practised. Several of the teachers suggesting these approaches made the point that children can associate a picture with an idea long before they can read (examples given are 'running' and 'help').

The idea of little happy or sad faces to replace or supplement traditional ticks and crosses in marking is also mentioned by several (4) teachers. One reported a way of enlivening the morning 'news' sessions with her drawings, by sketching an illustration of each child's news on the blackboard as it was told. She emphasised that the teacher need not be an 'accomplished artist' in order to use this technique - 'stick men will do!'. .

3. Techniques to help children with special educational needs.

The invitation to describe ways in which pictures are used to meet special educational needs produced a wide range of different sorts of comment. It is interesting to note that comments in this section characteristically made less reference to school subjects than in the general section. Instead cognitive abilities or attainments, such as concept formation, seriation, number correspondence, visual discrimination, received more frequent reference.

However, many of the classroom uses for pictures are the same as those given in the general section. For example, the idea of textless books is mentioned by a number of teachers, but it is interesting to note that in this section their value is more carefully analysed and more specific uses for them are reported. For example, the value of pictureless texts in developing 'logical prediction'. Similarly the idea of replacing a difficult word with a picture, and the general claim that pictures encourage children to talk, appear frequently in this section, as they do in the general section. But here the additional advantage is noted that teacher and child looking at and talking about pictures together 'can stimulate a great rapport between teacher and pupil'. This is closely allied with the notion that at least some children with special educational needs find difficulty in sustaining conversation with the teacher in the normal run of things, and that the presence of the picture gives them 'confidence' to talk.

Not surprisingly, the contribution of pictures to pre-reading skills gets frequent mention. Most of the teachers doing so go on to break this down into the language sub-skills, which include shape recognition, concept formation, observational skills, verbal (oral) description, sequential thinking, visual discrimination, and vocabulary development.

Particular classroom activities which are mentioned as developing shape recognition are elsewhere mentioned as helping concept formation, oral description, and observational skill. These are jigsaws, picture snap, recognising detail, discovering hidden objects within a picture, picture to picture matching, pointing to colours and particular objects in pictures, identifying objects with common properties in pictures, and the description of depicted events, especially those with social connotations or which would reveal an awareness of topological relationships. Several teachers mentioned using pictures to ask 'How people are feeling', with one teacher relating this to the development of 'social perceptions'. Two teachers mentioned using pictures to compare sizes of depicted objects and talk about distances (this may be a rare example of specific training of pictorial perception), and one reported using pictures which showed the incorrect use of objects.

The most popular activity, reported as developing 'skills of sequencing', was the use of specially made sets of 'ordering cards', but two teachers referred to a comic strip approach in which the child draws the events which make up the sequence.

Pictures as an aid to visual discrimination produced a number of remarks (6) and suggestions for activities. Most of these depend upon having similar, but slightly different, pictures in which the child is expected to identify the differences. These might include noting the orientation of objects, picking out upside down objects, or variation in size of depicted objects.

The most frequently mentioned areas of development were sight vocabulary and word recognition. Picture activities which are reported as helping these include games of the picture-word lotto sort and using pictures as a vehicle for questions about object-word associations, such as 'which things sound the same?', 'which things start with the same letter?'. Locational questions which lead to prepositions such as 'Is the bell under the bed?' are mentioned by several teachers. A number of comments describe approaches to the development of word recognition which are loosely related to 'language experience' sort of sequences.

Only two teachers mentioned pictures supporting mathematics for children with special educational needs, and then only in the most general terms by listing some of the concepts which they believe pictures can help. These were number correspondence and conservation, with the mention of particular activities such as sorting.

Under the special educational needs heading few teachers (3) chose to mention the point made quite frequently in the general section, that real objects are preferred to pictures whenever it is practicable. One teacher does, however, express this thought forcefully, 'Don't show pictures if the real thing is available nothing can substitute for the real thing!'. .

Particular developmental deficits which receive mention as constituting special educational needs were (in order of frequency of mention) language/speech difficulties, visual discrimination difficulties, limited concentration/attention, social immaturity, memory difficulties and impaired hearing.

4. Storage and retrieval systems.

Comments were only invited in this section where the teacher had reported themselves as 'highly systematic' using the categories provided. Consequently they are by no means representative of teachers in general.

Storage was usually either in drawers or flat boxes stacked on shelves. In some cases there was a two tier grouping, for example, in envelopes in drawers, where the drawers might represent a 'theme' and the envelopes be alphabetically marked. In some cases individual pictures might be marked with the initial letter too. Unfortunately no details of the alphabetical sub-categories are given.

Some teachers and heads reported a centralised picture library. It is interesting to note that in every case (7) *some indication was given* that the indexing system was not fully worked out. Two teachers reported that the indexing of centralised systems was linked to the book referencing system, but no further details were offered about how this was actually done.

Two systems for categorisation dominate the replies; school subjects, for example, science, maths, language, and topics, for example, animals, seasons, safety. Some replies describe systems which mix these two, that on the face of it seem to contain potential difficulties in locating pictures. For example, one teacher describes a system which includes as separate categories science, time, and mathematics, where it is likely that many pictures would equally well fit into each.

The most frequent categories mentioned are:- seasons (included in almost every list), Christmas, road safety, animals, language, and maths. Other 'topic' type categories which get several mentions are birds, domestic animals, people, space. 'Subject' type categories are religion, science, and music. Several teachers (4) mention cross-referencing between categories of pictures, and two refer to cross-referencing with books and visual aids, but in none of these cases were further details offered.

Four teachers listed the full extent of the categories that they use. These are as follows:-

1. History and geography, nature and science, religion, everyday events, stories and poems, special events.
2. Seasons, Christmas, English, maths, stories, poems etc., animals, flowers, trees, science, music, nature (general), religions, festivals, birds, miscellaneous.
3. History, animals, pets, seasons, science, Christmas, road safety, health and safety, birds, other lands, homes, people who work for us, insects.
4. Seasons, birds, garden, water, animals, reptiles, amphibians, mammals, history (in topics ... Romans, etc.).

5. Wall displays.

The most frequent general comments offered in this section were concerned with the degree of children's involvement with displays. Both the extent to which children's work should be shown, with many teachers (11) stating that all children's work should be displayed, or at least something from each child at any time. The commonest comment here was that all children should participate in making the display, 'If only by pinning a label or colouring a square'. In a number of cases this is justified by reference to the social value of co-operative work. Yet even more teachers emphasised the value of the teacher in presenting the children's work to advantage, by arranging and mounting the display.

Many teachers commented on the wide range of different purposes which wall displays could serve. Several noted particular purposes as important, including the generation of new ideas, reminding the children of work completed and topics covered, setting new problems, posing questions and offering answers, creating a cheerful environment, and welcoming visitors to the classroom. Occasionally this reference to the wealth of different purposes for display was offered to explain difficulties which respondents had found with some of the questionnaire replies.

Several teachers also chose to make remarks which explained or extended replies given in the form of a ticked box. In particular, the scale on completeness/incompleteness of displays f, (vi), attracted this sort of comment. For example, 'at any point a display should be finished, but it is not static', 'A display is always changing and growing', 'Nothing should stay for more than about five weeks since items lose impact'. The general

thrust of the comments seems to be that a changing, dynamic sort of display is important in that it reflects the interactive part played by the display in the work of the classroom.

Other comments were made by fewer teachers and sometimes individual teachers. Four teachers mentioned the importance of labelling. Two teachers remarked that displays should contain only children's work. Two others commented that as far as possible displays should be placed at the children's eye level, an interesting tip but one which must be difficult to realise in most classrooms. Individual comments included 'A good display contains themes for progression', 'A display reflects the teacher's view of the children's needs', 'The display should reflect the stage in the term' and 'A good display is clear and simple to make explanations easier'.

A few teachers offered generalised comments on qualitative or impressionistic aspects of displays such as the need to make them attractive, original, colourful, eye-catching, curiosity-arousing, attention-commanding and impactful.

One teacher gave a more detailed account of what she called 'lively labelling'. This consists of devising labels specifically to attract attention to the affective aspects of displays. She gives as an example, on the picture of a dragon the label 'Would you like to meet this on a d-d-d-dark night?'

6. Unsolicited comments.

Comments appearing other than where specific invitations were made were uncommon. Only 18 out of almost 400 questionnaires contained any, but of these, some contained several. They can be broken down into three types of comment. First, those which condition, modify or in some way explain answers given as ticked boxes. There were nine of these in all, three of which were in relation to section 3(g), children's understanding of pictures. They were 'Depends upon clarity of illustration' (g.i), 'Depends upon children' (whole section), and 'Partly means some children' (g.v, g.vi). Two were in relation to the section on wall displays (f). These were, 'Yes, if question means display not left unfinished' (f. vi) and 'Depends on the purpose of the display' (whole section). Two were in relation to section 3(i) Pictures in beginning reading books. These were 'Pre-reading but not otherwise' (i, iii) and a question mark against question (i, i) which had been left blank. Two teachers commented 'vital for all children' against the special educational needs question Section 3(j), whilst ticking the disagree box.

The second type of comment was that which simply re-stated or reinforced answers given by ticking. There were three of these in all with two being given in relation to section 3(f), Wall displays. One commented 'both apply' when ticking both ends of the scale, and the other commented 'Both decorative and informative' against question (f.i).

The third type of comment was that of either a personal kind, or that offering some general opinion about pictures not covered by the questionnaire itself. The most common (4 replies) was to the effect that good pictures of the right size and quality were hard to find.

The remainder were all in relation to Section 3(h), Teacher-made pictures. Two made the point that their own art work was poor and one mentioned that he used the blackboard extensively. The most common (6) of all the unsolicited comments were those which assigned a high value to pictures in the classroom, such as 'Invaluable in all classroom activities' or sometimes in more personal terms 'I use pictures a great deal in all aspects of teaching with my class'.

Summary and discussion of written comments

A small proportion of teachers elected to make comments of any sort even in those sections where they were specifically invited to do so. Within that only a handful commented critically upon the questionnaire itself. Both of these may be taken as indicators that teachers found the questionnaire a satisfying medium through which they could express their opinions about the value and uses of pictures in their classrooms.

The great majority of comments referred to particular uses for pictures. A rich variety were noted which considerably extended those given in the questionnaire. The commonest way of expressing these functions was to describe the way in which pictures contributed to some area of the infant curriculum: the most popular area being language. Another approach was to describe the developmental feature to which pictures contributed. This latter was most often evident when teachers were commenting on the uses of pictures for children with special educational needs. Apart from language the areas of the curriculum which pictures were seen to serve was influenced to some extent by the availability of specific resources. Health education, and road safety receive frequent mention. Both of these are characterised by having official bodies who have a deliberate policy of providing specifically designed pictorial materials, often with suggested ways of

using them. Not only are these materials free, but they are also disseminated in a very active way so that they usually find their way into schools and classrooms at no effort to the teachers. Based upon these results it seems clear that these diffusion techniques are successful in influencing infant teachers.

Compared with the general run of comments, which focus mainly upon the informational/cognitive functions, there are few comments which emphasise the affective functions of pictures. Even more surprisingly there are hardly any which give prominence to the aesthetic contributions which might be argued to be an accepted and traditional role for pictures.

The accounts of storage and retrieval, which because of the way the question was posed were only from those who claimed to be highly systematic, serve to point up the difficulties attendant upon indexing pictures rather than offering solutions.

The comments on the wall display section reveal two general features that are particularly noteworthy. First the value of classroom displays is never questioned at any level. Neither wall displays themselves nor the activity of making them receive the slightest negative or questioning comment. It appears to be completely taken for granted that classroom display is universally good. However, it must be emphasised that this is merely an impression since there was no direct questioning of teachers about the values which they assigned, and the form of the questions may have contributed too. Second, the comments serve to point up a particular dilemma about ownership which has wider connotations than display itself. On the one hand there is the frequently stated position that the ownership of the displays is vested in the children in that it should be their work, their selection, and their job to design and erect the display. On the

other hand when faced with direct questions about what part the teacher should play, or the function of the displays, an instructional focus with displays as a vehicle for the development of adult standards seems to dominate. In short a conflict in the teacher's role between facilitator and instructor emerges.

The comments are permeated with the idea that pictures are a direct and immediate channel of communication through which any idea, within the cognitive capacity of the child concerned, can be conveyed. There is no indication at all that teachers feel that picture perception itself is subject to development. None of the many activities detailed in the replies concern themselves with developing the child's abilities to make sense of increasingly complex pictures. None of the comments which refer to picture selection suggest that this is done with any awareness of the children's abilities or limitations in terms of picture perception skills in mind. One might conclude, on the limited basis of these written comments alone, that teachers do not behave as though any professionally relevant development of picture interpretation skills takes place over the period of the infant school years, or if it does it is unnecessary for the classroom activities to make a contribution.

CHAPTER SIX

DISCUSSION OF SURVEY

Classroom uses for pictures

The way in which data and results relating to picture use are treated is coloured by the concern to which the whole study is principally addressed: the relationship between theory, as represented by research work in the field, and classroom practice. Consequently, picture use is analysed and discussed predominantly in relation to the ways in which it may or may not be informed by research and the extent to which it could or does inform research.

Three sections of the questionnaire provide direct information on the classroom uses for pictures: section 3a which has that title; section 3b, which considers the use which pictures have as facilitators of development; and section 3i which specifically looks at the uses that pictures have in relation to early reading books.

Perhaps the most striking feature is the extent to which pictures are valued for their use in the cognitive sphere. Within this language dominates as the area of school activity and individual development to which pictures are addressed. The written comments support this trend by most frequently reporting activities aimed at predominantly intellectual or linguistic experience. On the one hand this may be no more than a reflection of the general focus of infant classrooms. Perhaps the activity of infant classrooms is aimed predominantly at cognitive and linguistic development. Similarly, pictures are seen as mainly serving the developmental aims of

intellectual competence and the acquisition of basic skills. There is some evidence from the literature, for example King (1978), to suggest that this may be the case. On the other hand the responses may be indicating that pictures actually have a special usefulness to things cognitive and linguistic. It is easier to see why this might be so in relation to language than cognition, since a very obvious thing to do with any picture is to talk about it. The linguistic value of pictures is also prominent within research in that language is the focus of some of the most school-oriented studies. Language facility is distinctly to the fore in studies which offer approaches to facilitating learning (Sinatra, 1983; Spiegel, 1983) and most commonly the focus of those studies which eventuate in guides to picture selection. The Manzo and Legenza (1975) study is a good example of this, presenting as it does a 'picture potency formula' where potency in language facilitation is the subject.

The use of pictures in the affective dimension, to stimulate emotions or facilitate emotional development contrasts in that it has little prominence. The responses to the questions show this contrast and they are supported by the comments, although there are a few notable exceptions. Linked with this is the almost total dearth of references to the aesthetic function of pictures or their contribution to aesthetic development. Most of our most prominent writers on the value of pictures in education consider the most important function of pictures to be their contribution to spiritual/aesthetic development. It may be, however, that what is revealed here is a distinction between pictures in general and pictures as art, for it is the latter which is the position of Herbert Reid and similar writers when they assess the place of pictures in education. Infant teachers may well begin from a quite different notion of the nature of pictures. The indication is that they do and that they assign primacy to what Duchastel (1978) termed the 'explicative' features of pictures. If one considers the

balance of functions revealed by the survey in terms of Magne and Parknas' (1963) division into motivational and informational uses for pictures in the classroom the emphasis implied by the responses is notably towards the informational. One may extend this to say that there are indications that in normal classroom use pictures (other than those produced by the children themselves) are usually treated as a source of information rather than decorative objects.

This may also be illuminated by relating it to Sigel's (1978) reference to the 'dual reality' of pictures. Pictures are the thing which they represent, but at the same time they are a pattern of marks on the paper. An informational view of pictures aligns largely with the first whereas a pictures-as-art view emphasises some aspects of the second. It is the former reality which seems to be the predominating construct of the teachers responding to the questionnaire. A review of experimental research carried out by Aupecle (1978) tends in precisely the opposite direction. That is to say that in learning pictures are more valuable as motivators than instructors. Clearly this is something which will benefit from further investigation via direct observations.

Using pictures as a form of reward was the least reported function to a notable degree. This is borne out by the almost complete absence of related uses in the comments. It is possible that teachers are actually expressing a more general antipathy to any extrinsic forms of reward. It is common in educational psychology, as applied to teacher training, to find intrinsic forms of motivation presented as the most worthy. Even the terms used can have a slightly biased quality. Ausubel and Robinson (1971) in their threefold analysis of school learning motivation refer to that which depends upon reward, other than social acceptance, as 'ego enhancement', and assign it an inferior role in effective learning compared with task-focused

motivation which they call 'cognitive drive'. So it could be that the idea of 'reward' is in itself unpopular with infant teachers. Yet the explanation could be more related to pictures via teaching technique. It is possible that there are not many ways of using pictures to reward pupils that are known to the teachers. Lloyd (1977) describes a word-matching activity which if correctly carried out is rewarded by a picture, but the deliberate use of pictures to this end does seem to be quite rare in the literature. There does seem to be a tension between the reported low status, or occurrence, of pictures as rewards and some of the things which teachers had to say about wall displays, which will be addressed later.

A common way of describing the uses of pictures in the comments was to merely point to the school subject which they support. This may offer an interesting side light on the way in which a significant number of infant teachers conceptualise the school teaching and learning process. It was noted earlier that a number of recent workers conclude that teachers' planning is more often than not focused upon the classroom activity itself rather than outcomes, or a more analytic view of the function of such activity. Similarly, a common form of reporting the curriculum is as a grouping of recognised school subjects. It is consistent with this if teachers consider that a functional description of pictures is 'supporting number work', or bible stories, or health education. In connection with this mode of description the word 'stimulate' is probably the most popular predicate. The survey itself says little about the actual meaning or meanings which are being attached to this apparently pivotal concept, and it will be valuable to follow this up in a more ethnographic context. It could usefully be the subject for some form of semantic analysis.

A detectable shift is evident in the common mode of description when teachers are making reference to the uses of pictures for children with

special educational needs. In this area there is a greater tendency to describe the use of pictures in terms of their contribution to aspects of the pupils' development. This, more developmental focus, also tends to be more analytical too; so that references are made to a range of different aspects of cognitive and linguistic development. It may not stretch credibility too far to suggest that this is a reflection of a common view of the nature of special educational needs as they relate to the school curriculum. The Warnock definition itself, with its focus upon the difficulties experienced by the pupil in operating within the normal curriculum, serves to reinforce the notion that the special educational needs pupil is one for whom the curriculum is flexed to meet his or her identified developmental needs. That is to say, that to a greater extent than normal the curriculum serves the learner, and activities are envisaged more developmentally. Yet it may also spring from quite a different, and somewhat opposed, idea. A traditional, and by no means extinct, view of learning difficulties is what is commonly termed the pathological model. In this view the child's difficulties arise from some sort of shortcomings in his or her developmental process. Whether these are seen as medical or social the problem resides within some deficit on the part of the pupil. Such a model led to increasing refinements of analysis of the cognitive process in particular. Difficulties would be described, or at least characterised, as concept formation difficulties, or short term memory difficulties, or problems in intermodal transfer, and so on. It is possible, therefore, that the present tendency to be more analytic of the learning and cognitive processes, observed in the way that teachers report the specific uses for pictures for pupils with special educational needs, derives at least in part from this tradition.

Typology of picture functions

By drawing together the functions most frequently given at different points in the survey it is possible to attempt a typology of picture functions in the infant classroom. This is not presented as in any way definitive, rather it is a tentative guide to observations at subsequent stages of the study, which may also serve to help in its refinement.

Illustration - Under this heading are all those functions in which the picture is no more than an extension, or repetition, of a message delivered in some other mode of communication. In the terms that it is used here the extension does not explain, clarify or move on from the original message. It merely complements it. It may, however, include filling in of detail.

Stimulation - This includes the idea of arousal and centres upon the picture generating action, even though that activity may be quite internalised. It is linked with sharpening or switching on cognitive qualities such as curiosity and heightening of perception, but also implies sharpening of memory and attention. It clearly also stands astride the intellectual and affective dimensions. In some cases it is clearly used in a way which has predominately emotional connotations. This is not only the most popular function given but almost certainly the one in greatest need of further clarification.

Reinforcement - This tends to cover not only the standard behaviourist definition of the word, but also includes the idea of offering practice.

Example - Under this heading come those instances where the picture is providing a model to be copied. Most of the instances given in the survey are of a social or behavioural sort, but it is easy to see an instructional connotation in this dimension. The common practice of providing a picture for copying in drawing would come under this heading.

Explanation - This includes all those uses where the intention is to make clear an idea, concept, or instruction or demonstrate the relationship between parts of an idea. It reveals information, and hopefully, leads to understanding or concept acquisition. It may be linked to an instructional or didactic view of schooling.

Mediation - Under this heading are those functions where the picture is being used to reduce tension between individuals, but it also includes any use in which the picture is a temporary link between ideas or modes of communication which enables them to relate in a way they otherwise would not. Use of context cues in reading would be the most common example.

Decoration - This is a somewhat broad use of the term and includes all functions which centre upon enjoying or benefiting from the experience of the picture separately from its information-carrying role. It includes what in another context we might term aesthetic functions.

Diagnosis - Whenever the main function of the picture is to give the teacher information about the pupil's learning, understanding, or difficulties being experienced by him/her.

Surrogation - Under this heading come all those uses where a picture serves as something else. Two main types are evident; pictures standing for events, places, or people who are not present, and pictures standing for words, or names. The first is in some ways universal, but the second is selectively used in infant schools.

It is clear that these categories are not exclusive and at any time a picture will be performing several of them at the same time. Its use as an analytical tool depends upon the notion that emphases will be detectable and that they will characterise the particular picture use being employed. Such characterisations may be used in a purely descriptive mode or, more ambitiously, to detect connections between picture use and other features of the situation, whether these be of a concrete nature, or relate to broad ideological or philosophical dimensions.

Teachers' preferences for pictures

The survey produced several types of information on teachers' preferences for different sorts of picture. Perhaps the single most surprising thing is that a clear pattern of general preference is expressed, in spite of the opportunity offered for teachers to elect that their preferences were too related to the intended educational use to generalise. The pattern which does emerge is remarkably similar to studies which have examined the preferences of young children themselves. Hence the pattern established by Campbell (1976), Dennis (1976), Smerdon (1976) and Myatt and Carter (1979) with colour, and saturated colour at that, being preferred over black and white, figurative over abstract, and photographs over drawings is reproduced here. This could be taken as an indication that teachers are aware and responsive to what their pupils like. Yet it does point up the

chicken-and-egg problem of whether it is really sensitive teachers reflecting their pupils' tastes or merely forming them in their own image. One may say precisely the same about the mutual influence of teachers and publishers. The typical Visual Education centre-fold corresponds quite well with the identified criteria, but who is leading who? It is tempting, if perhaps somewhat optimistic, to claim that the correspondence demonstrates that the pictures provided for and used by schools are influenced primarily by the preferences of the pupils. Yet the most powerful independent measure of the way that children perceive the world pictorially is at clear variance with this. The way that young children represent the world in their own drawings (Freeman and Cox, 1985) suggests that leaving aside questions of artistic and manipulative competence, the child's pictorial construction is not 'figurative' or 'realistic' in the mimetic sense that the preferences indicate. Is it that pupils prefer proper perspective but cannot do it themselves, or is it that they actually prefer the view of the world that they draw, but feel that it is right to prefer 'proper' adult perspective?

This intersects with the findings of Dwyer (1972) and De Cecco (1974) who show that children's preferences are not indicative of criteria tests of effective learning. This is significant in the present discussion in that the identity between the reported children's preferences and the present teachers' preferences is more likely to be the product of teachers identifying children's preferences (or dictating them) rather than an awareness of what seems most effective in pedagogical terms. The explanation of this might, however, reside in differences between the researchers cited and teachers in terms of what is thought to be effective learning.

Another factor which bears upon the supposition that teachers reflect children's preferences relates to changes in preference. Smerdon (1976)

shows that children's preferences do change with age over the infant years. There is an increase in children's liking for complexity and less obvious meaning in pictures. There is no significant difference in preference in relation to age of children taught in the present study, although specific questions were included in the questionnaire to cover these particular areas.

Another point of agreement between the present survey and research is the extent to which teachers' preferences for content coincide with what studies recommend for pictures as language generators. Campbell (1976) draws together some of this research, and shows that two important criteria are that, to act as language stimulators pictures should contain much depicted action, and that they should show familiar places and incidents. Both of these seem to be heavily supported by teachers in the present study.

There are few studies which have directly asked teachers to express their preferences for educational pictures, but one such can be found in the work of Orderindi (1975). There are points of agreement with the present study, notably in terms of 'realism' and familiarity of content. However, he found that a dominating feature was that criteria for an effective picture would vary in terms of the specific educational task for which it was to be used. Clearly, this was not felt with the same strength by the present teachers who, more often than not, were prepared to generalise rather than take the opportunity to express that view. Although it is difficult to see how it ties in, some significant variation was observed in the extent to which teachers were prepared to generalise preference, on the one hand, or insist upon specific criteria, on the other. Teachers who scored highly on the teaching style variable were more prepared to generalise, and teachers who scored highly on the general dependence upon pictures variable were less likely to generalise. One might speculate upon the reasons for this, but in

the absence of related evidence, it is perhaps best to simply hold it in mind as one of the things which subsequent phases of this study may illuminate.

Storage and retrieval

Among the least surprising responses to the survey the answers to questions on storage and retrieval of pictures do nevertheless contain some interesting features. Seven percent of the sample claimed to be highly systematic and, consequently, were asked to report the system which they used. On the basis of their comments one may note that there were no instances of anyone attempting to classify features of pictures other than content, although there is fleeting mention of size. Certainly style and mode of representation do not appear to feature as indexable characteristics. This is hardly surprising, since attempts to do so in the literature (Fleming, 1967; Standing, 1971; Mandler and Johnson, 1976; Ashwin, 1979; Newton, 1984), demonstrate how complex this is, and it is difficult enough to classify pictures on the basis of subject alone for viable retrieval. The most striking feature of the systems described is that they sound like accounts of the curriculum, or at least the syllabus. Topics of the sort which may be commonly found in the infant syllabus, subject division of the sort which could very easily label class activities, and combinations of the two abound. With the exception of references to alphabetical indexing and classifying, in line with reading books, the remainder could very easily be descriptions of projected classroom activity. This undoubtedly is something which should be open to clarification through direct observation in later phases of the study. At least part of its importance resides in what it may tell us about the flexibility of infant curricula, or at least the extent to which they are subject to long term planning.

The value and function of display

The exploratory group had identified wall displays as a likely area for fruitful investigations, and the responses to the questionnaire, together with the additional comments, tend to confirm this. Some clear patterns emerge which may well have much to say about the relationship between action and rhetoric in the infant classroom. The most clearly, and frequently, stated opinion about displays is that they should be mainly children's work, and several comments go further to say only children's work. Indeed the unanimity and strength of feeling about children's work in display is remarkable. This seems to raise a number of questions in relation to other aspects of the survey. For example, children's pictures do not fit well with the sort of criteria for pictures generated by teacher's responses to the preference section of the questionnaire. Children's work does not achieve photographic realism, the meanings are not usually clear or obvious, it is never fully tonal, it is not full of depicted action and detail, it is often abstract rather than figurative. In short, whilst children's work is aesthetically exciting and often a sheer delight in its naivety, it could hardly be more widely removed from the 'Visual Education' sort of picture.

One way of explaining this apparent contradiction is to look to intended purposes. It could be that the preferred criteria apply to pictures intended for directly instructional sort of use; for giving explanations, or acting as surrogates for objects and events beyond the classroom, or stimulating language or thought, and that such uses are not the main purpose of displays. However, this solution clearly will not do, since the marked feeling of teachers is that displays should be informational, rather than decorative, and that they should instruct rather than reward. The additional comments lend strong support to this in that uses of display such as the generation of new ideas, setting problems, posing questions, offering

answers, and other things which are mainly in the instructional/informational dimension predominate. Only a handful of comments ventured uses such as reminding children of work done, creating a cheerful environment, welcoming visitors, where an emphasis upon children's work is of self-evident value. Another difficulty arose in relation to a number of comments which carried the idea of children's work further by insisting that pupil involvement in displays should not be confined to providing the pictures, but that they should have at least a participative role in the making/production of the display as a whole. Yet this, on the face of it, seems to be opposed by the strongly expressed view that it is the teacher who should select the material for display, and who has a duty to ensure that it is properly presentable and effectively arranged. The equally strongly expressed view that displays should be complete and have few themes interacts with this question too in that it contains an implication that there is, and should be, a clear overall control of the display design to ensure that these qualities are present. One might suppose that a display which was quite in the control of the children could hardly be expected to express such defined compositional values.

Both of these point to the presence of a dilemma of the sort identified by Berlak and Berlak (1981) in relation to control. In this case it seems to be mainly what they would call 'control of operations', but possibly touches on 'control of standards' too. It is not difficult to produce an explanation for the dilemma in which a broad child centred rhetoric that unquestionably accepts the child's products as the right and proper focus of the classroom is confronted by a didactic view of the teacher's role and an instructional view of materials in the classroom, holding allegiance to a transmission of knowledge view of schooling. However, the very ease with which such an explanation can be conjured makes it suspicious and counsels caution. To this point it is really only possible to say that significant

contradictions are evident in the way that teachers have expressed their opinions about the place of children's work and children's control of displays. It is likely that the identification of these contradictions can sharpen the focus of subsequent observational phases of the study. For example, one way of pursuing this would be to look for instances of children's work being used overtly as information or as the medium for direct instruction. Indeed, observation of the extent to which children's pictures and commercial or adult pictures are assigned differential roles at all will be illuminative. More fundamental than this will be observations of the extent to which the strongly expressed opinion about the importance of displays being of children's work does actually result in displays which indeed are predominantly children's work. It is also important to explore the meanings which teachers are assigning to the terms used in the questionnaire such as 'reward', 'decoration', 'information', 'instruction', to ensure that the identified contradictions have more than a semantic basis. This will not only bear upon the contradictions already mentioned, but also help to explain, the surprisingly low value assigned to reward and decoration in the questionnaire answers.

A wide range of more practical questions, which may be complemented by observation and interview, are suggested by the survey results. For example, what different ways are there for involving children in the production of displays? What different ways are there of involving displays in class activities? and to what extent do teachers assume, or even depend upon, children paying detailed attention to displays when not instructed to do so? On this last one there are indications from the survey that teachers do have such an expectation and that it is instrumental in their decision-making.

It is interesting to note that the independent variable which most correlated with aspects of display was teaching experience. Teachers with greater teaching experience were more likely to think that displays should be mainly children's work, but they were less likely to feel that children should be involved in the selection of work, or to see the purpose of display as reward. To some extent this embodies the apparent contradiction and identifies it as something which is increased by the experience of teaching, making it less likely that the original observation from the general frequencies is some sort of chance effect. It certainly seems to operate against the possible explanation that most teachers like a lot of children's work shown because it enables them to reward the children for good work. Clearly there are many things about displays, and teachers' values in relation to them, which require further illumination in subsequent stages of the study.

The pupils' understanding of pictures

The question of teachers' beliefs about the extent and nature of children's understanding of pictures is one which at least has the potential to offer, in a very direct way, a comparison between teachers and research. On the one hand the development of picture perception is an area well served by research, on the other the opportunities for detailed observation afforded the average class teacher are very extensive. The issue is informed most directly by teachers' answers to the questionnaire section entitled 'children's understanding of pictures' (3g). The questions included in this section each refer to perceptual attainments which have been identified by research as normally acquired over the infant years or later (Goldsmith, 1984). Some, it is reported, would be acquired at the beginning of schooling, others would not be acquired until the beginning of the secondary years. The order of acquisition indicated by research is compared with the

order indicated by teachers' replies in table 11. At first sight there appears to be little agreement. There appears to be disagreement of two kinds; a generally more optimistic view of what children can do from the teachers and a failure to correspond with the developmental pattern uncovered by research. Before going further with the analysis of this comparison, it is important to recognise two weaknesses of the figures used. First the 'scores' from the teachers' replies combine both the 'can do it' and the 'can partly do it' categories and there is some uncertainty about how teachers were using the word 'partly'. Second, the chronological ages indicated by research, in common with other developmental work of a similar sort, are merely expected means and take little account of individual variation. However, neither of these objections have much influence upon the order or sequence of acquisition, which remains good, at least to the point where there are differences which need to be explained.

TABLE 11

Relationship between percentage of teachers reporting that children are able, or partly able, to demonstrate ability, and age of acquisition as claimed by research sources

<u>Perceptual Ability</u>	<u>% of teachers reporting that children have or partly have ability</u>	<u>Age of acquisition as claimed by research sources</u>
Infer from a picture psychological states or inner activity. (i)	92	4 Years
Voluntarily shift attention from part to whole of picture. (vi)	81	8 Years
Ignore incidental information (vii)	80	12 Years
Identify familiar objects shown from an unfamiliar point of view. (ii)	74	3 Years
Understand conventional devices implying movement. (iii)	64*	6 Years
Make effective use of context for identification. (v)	63*	8 Years
Interpret pictures metaphorically (iv)	34*	7 Years

A closer examination of the table reveals that three of the questions, those marked with an asterisk, (iii, v and iv) do not represent a notable disagreement. Research shows that they will be acquired during the infant school years and the responses of the teachers more or less indicate that they are for some of the teachers and are not for others, which is what one would expect. It is also true that there is little disagreement evident in the first (i). Research indicates that almost all children can infer from a picture psychological states or inner activity, at the very beginning of schooling, and almost all the teachers feel that their children can; a good match. If the batch of questions had contained only these four then presumably we would be concluding that there was a remarkable agreement visible between teachers and research. However, it is the presence of the

remaining three questions, (vi, vii, ii) which disturbs the pattern.

There are a number of possible reasons that disagreement should focus on these particular questions. A disagreement, which may be expressed as an optimistic view of how soon children can voluntarily shift attention from part to whole of a picture and ignore incidental information, and a pessimistic view of how soon they can identify familiar objects depicted from an unfamiliar point of view. It must be considered as a possibility, that in this case, it is the research itself which is in error; perhaps less reliable on account of the amount or quality of work which has gone into establishing the stages quoted by Goldsmith (1984). An examination of the supporting literature reveals that this is extremely unlikely since the points are variously established by such reliable sources as Gollin (1966), Hanes (1973) and Campbell (1979) and supported by several replicating or related pieces of work (Bayliss and Renwick, 1966; Spencer et al, 1980). We may say, with a good deal of confidence, that the findings are sound in their own right.

Another possibility, is that these three use especially difficult language and are hence open to greater misinterpretation than the others. On the face of it, this does not seem to be the case, for the ideas being conveyed are no more difficult. It is certainly true that the question of degree of accomplishment is to some extent ambiguous. That is to say that the teacher may be uncertain how great a shift of attention is indicated in (vi) or how incidental was the information to be ignored in (vii), or how unfamiliar is the viewpoint in (ii) (some trick photographs can stump adults). Yet difficulties arising from such ambiguities could arise just as easily in the areas where agreement is higher, so whilst this may create difficulties in understanding, it does not seem to discriminate.

Yet a third possibility, is that these areas of perceptual attainment are either more difficult to observe, or are normally less noticeable amidst the general run of classroom activity. Once again these particular questions fail to single themselves out on this basis. For example, one would expect that a failure to ignore incidental information would make itself visible at least as readily as a failure to use context cues effectively.

In short, none of the sorts of difficulty which might indeed make the interpretation of all the questions problematical seem to be differentially so for these three and we are forced back to the position that the total ordering offered by the teachers bears little resemblance to that suggested by research. Nevertheless, there is some evidence that teachers do recognise some sort of developmental trend in respect of these accomplishments. Age of children taught and children's understanding do correlate positively, albeit at a somewhat light level (rather better than 0.15), in a way which indicates some sort of developmental recognition.

Additional comments made by teachers do not impinge on the developmental question except through omission. That is to say that none of the comments overtly imply that differences in picture perceptions with age influence teachers in a visible way.

A number of questions about teachers' views of pupils' understanding of pictures arise from this analysis which help to focus observations in the school examples. For example, the extent to which the wording of (vi) (vii) and (ii) is more difficult or classroom observation of these presents greater difficulty and a comparison between these and the remainder in terms of classroom relevance. More generally, it will be valuable to look for examples of occasions when children display any deficiency in pictorial understanding and the strategies adopted by teachers to deal with it. Data

may also be gathered in terms of what teachers have to say about the selection of pictures for classroom use. It is possible that the criteria for selection which they adopt is influenced by a developmental view of children's picture perception skills.

Pictures in beginning reading books

The teachers' answers to the section on pictures in early reading books gives another, and particularly direct, perspective on the relationship between theory and practice. The opinions expressed in this section, which teachers were most likely to disagree with were those informed most directly by research. It is notable in this context that the research in question has a rather different flavour from the developmental work considered so far, in that its results are specifically aimed at informing the classroom and hence informing the teacher, in a clear, and doubtless in the minds of the researchers involved, an unambiguous way which can be directly applied. The most striking opposition is given to Samuel's (1970) findings that, in the earliest stages of reading, pictures distract attention from the text and consequently inhibit the development of sight vocabulary. A possible, though by no means demonstrated, explanation for this discrepancy is that teachers conceptualise the earliest stages of reading in a wider and more holistic way than the research does, with the place of memory for words and sight vocabulary as only a minor part. It may be that teachers find it unproductive to separate the development of sight vocabulary from other aspects of the initial acquisition of reading in the way that, for experimental purposes, the research largely does. If this is so, the essence of the disagreement centres upon the question of what are the crucial features of beginning reading, with research accepting sight vocabulary as the most important, but with practice possibly implying that something else is more important.

A high level of disagreement is also evident in relation to the opinion that pictures in beginning reading books should only show the objects that are directly named in the text. This springs from the work of Denburg (1976, 1977), who showed convincingly that new words were acquired more rapidly when the accompanying pictures had no background, and were only of things specifically named in the text. The focus of the disagreement may, as with Samuel's (1970) work, be the importance of sight vocabulary to initial reading. A possibility is that teachers see the highest value of pictures in early reading books as motivation. This would be borne out by the replies offered in this section. It would, however, be at variance with their opinions expressed both in the 'classroom uses' section and their additional comments where it is the information carrying function of pictures which is assigned the greatest value, with motivation in a distinctly secondary place.

Clearly, the questions of, first criteria for pictures in beginning reading books, and second the crucial factors of the beginning reading process will need to be addressed in the school examples in an effort to clarify what, at this point, appear to be conflicting messages.

Special educational needs

On the whole teachers supported the view that pictures do have a special value in the teaching of children with special educational needs. In doing so they show agreement with the main thrust of the literature. Some of the disagreements which were made can be explained by an interesting dilemma which attaches not only to this question but also to the very idea of special educational needs. Some of those who disagreed, indeed it is probably the large majority of them, did so because they felt that to agree that pictures were more important for children with special educational

needs somewhat diminished their importance for other children. Occasionally teachers wrote on their replies 'they are important for all children'. Clearly there is some problem, for a teacher who firmly believes that they do their very best by all their children, to accept that they should do better in respect of one group. Nonetheless, this somewhat abstract dilemma seems to present fewer problems in practice. The comments show that some teachers do have a range of special techniques reserved for children who experience learning difficulties. A feature of the additional comments in this section, is that they focus less on subject areas, than the general comments and more on developmental areas. This relates to the subjects/developmentalism dimension mentioned earlier. The point made at that time was that the rhetoric of infant education placed a greater emphasis upon the developmental end of the scale than, say, secondary education. The present findings do not bear that out, but in the absence of a parallel study conducted with teachers of older children it is difficult to make any meaningful comparison. However, there certainly is the suggestion that within infant school a shift from subjects to development is seen as acceptable when discussing children with special educational needs. A clear emphasis is placed upon language development by the replies, which in the subjects/developmentalism dimension is somewhat neutral since it may be viewed as either. This emphasis may be taken to indicate that pictures are seen as having a particular value to language teaching, but is more likely to be telling us that language problems are seen as being the most important feature of special educational needs. On balance, the evidence of the survey suggests that whilst there does exist some recognition that pictures may have a particular value for special educational needs pupils it is not marked and that the most significant difference is not that pictures are more valuable, but that they may be used differently, or at least with a view to assisting the pupil's learning in different ways.

Teacher variables and teaching styles

The design of the questionnaire form was influenced by the belief that identifiable sub-groups of teachers would emerge as differential users and valuers of pictures. Whilst the results do support this general belief, the detail of what has emerged is often surprising. Indeed, the extent to which what one might commonsensically expect to be obvious differentiators fail to do so is most striking. For example, the age of the children taught would, on the face of it, be something which influenced the way in which pictures are used in the classroom and, consequently, the sort of pictorial qualities that teachers value. It seems reasonable to expect that teachers of younger children would employ pictures differently because many of their pupils are at a pre-reading stage. In the event, no such relationship is visible. Again the amount of teaching experience which a teacher has does seem to influence reported classroom behaviour, although there are one or two minor correlations with questions of opinion. It is important to note, that this does not mean that greater experience does not produce different ways of working, but only that any differences that there may be do not form a visible pattern in terms of the behaviours featured in the survey. There are other things which may be loosely seen as context variables, which behave in much the same way, by lightly correlating with a few of the individual questions without producing any coherent pattern. These include not only the basic context variables such as size of school, but also whether the classroom is open or closed and whether it has team or individual teaching.

The most powerful differentiators are found in teaching style, and the extent to which teachers reported themselves as being generally dependent upon pictures. The effect of the latter was mainly seen with regard to the teachers' opinion of the importance of pictures to child development and

their particular use for special educational needs. Neither of these connections are surprising, indeed, it is only surprising that this particular feature of the teachers did not connect with other things, especially classroom use. As a group, teachers who consider their teaching highly dependent upon pictures, do not appear to use pictures differently in any statistically significant way from those reporting their teaching as less dependent upon them. This may well be an artifact of the way in which questions were asked and answered in the survey, for whilst a difference in the pattern of use is likely to become visible in the statistical analysis, variations in overall intensity of use are less likely to do so.

The most interesting and discriminating of the independent variables were those in the teaching style section (2). Two features are of importance to the present study: that the four questions intercorrelate, and that they tend to correlate, both individually and as a combined variable, with dependent variables of several different sorts. The intercorrelation between the separate questions tends to support an important assumption underlying their selection. It was assumed that they expressed features or manifestations of identifiable ideological stances. In this sense, the selection process contained a form of hypothesis, that the response to any one of the questions will be predictive of the responses to the remainder, and the intercorrelation suggests that this is so.

However, the process of identification of these questions went further than suggesting an indeterminate link with ideological issues in general, but was specifically related to what many workers describe as the progressive/formal teaching dimension. In practice, it is more accurate to describe them as relating to a progressive/non-progressive dimension in that the first step in each case was to identify a classroom behaviour which could be established as what Schutz (1953) called a 'practical recipe' which would be

expressive of progressive ideology. The dimension was then clarified by considering what parallel behaviour would characterise the absence of progressive approach. This became representative of the non-progressive end of the scale. One may claim on this basis that any teacher who responded by ticking all the boxes marked (1) would be claiming an extreme progressive position in terms of the description of what constitutes progressivism generated earlier (Chapter Four). From this it may be argued that the intercorrelation between these questions tends to support the belief that not only do the dimensions relate to some common factor, but that the factors concerned are progressive and non-progressive views on education. It is important that on the basis of the present correlation this should not be overstated. However, in the absence of any other explanation for it, it would appear that these results do lend some support to the view that a concept of teaching style which is grounded in notions of a progressive/non-progressive dimension is possible to detect in the field. Moreover, it may be detected using what Alexander (1984) terms a dichotomous form of description. That is to say in relation to the extremes of each. Consequently, it may be taken as opposing his views that such dichotomies are not supported by empirical data.

All this says nothing at all about Stewart's (1986) claim that such ways of characterising teaching style or classifying teachers are undesirable because they are divisive and value-laden. It may well be, that as he and Alexander (1984) suggest, an understanding of the real nature of teaching is not helped by such descriptions, or even that the progressive/traditional dimension is now so thoroughly steeped in implied judgements and connections with the received rhetoric that in practice it tends to obscure rather than enhance our view of practical teaching. This does not, however, detract from its value in the present study where the prime objective is not to generate ways of characterising general teaching approaches, but merely

identify factors which discriminate teachers in terms of the way that they think about and use pictures in the classroom.

If it is accepted that what is identified by the questions in section 2, and the combined variable which they produce, is related to, if not necessarily identical to what earlier studies have seen as a progressive/traditional or informal/formal dimension the results are revealing. The frequencies which emerge seem to indicate a considerable bias towards the non-progressive end of the spectrum. To this extent it supports Galton (1982) and goes further than the H.M.I. survey (1978) in suggesting that a trend away from progressive (exploratory) teaching approaches in primary education has continued. This may be claimed partly on the basis of the figures themselves, where less than 2% of the present sample place themselves at the progressive extreme, and partly on the basis that the present study addresses itself to infant teachers, who at least in the rhetoric (see King, 1978) have traditionally been presented as more progressive teachers than later phases. However, it is necessary to be cautious about such a claim: comparative studies over time are notoriously difficult since the constructs placed on the words used may themselves have changed in the period concerned. Whilst the qualities reported in the four questions are deliberately chosen to be as objective as possible this principle may still be at work. There is probably sufficient indication to suggest that a more focused study of trends in this dimension could be profitable at this time.

Whatever the connection between teaching style as identified in this study and ideological factors, there can be little doubt, on the basis of the present results, that it does discriminate teachers in terms of their opinion and use of pictures. Among all the independent variables, this is the most potent, in forming correlations with dependent variables. The two areas with which the clearest relationship is established are classroom uses

for pictures, and whether a preference is offered for types of picture. In relation to classroom uses the pattern reveals that over a wide range of specific functions teachers who score highly on the teaching style questions (towards the non-progressive end) claim greater use. It is possible to speculate that this arises because they envisage themselves in a more instructional mode with an implication that they deliberately analyse and control the use of all materials in the classroom; that the events of the classroom arise largely from their intentions, and that the environment is controlled and predictable. The other side of this particular coin, is that progressive teachers (as defined by these particular responses) are more ready to accept that they do not know the detail of how pictures are actually used by the children, and that the holistic and complex nature of the interaction between learner and learning materials is not accountable within the compartments offered by the questionnaire. The small amount of evidence which does exist on this question (Keifer, 1983) tends to support this. Observation in the school examples may well be able to illuminate this question in that a clearer view of the relationship between those variables which characterise teaching style and how pictures are actually used may be revealed. In order to do this the teacher's planning and intentions will need to be taken together with any observation of teaching and learning, as will the more contextual teaching style features such as the extent to which the timetable is integrated.

The second area of conspicuous correlation, the link with a readiness to offer general preferences, is equally difficult to explain without further evidence. The pattern which is revealed is that, by and large, teachers who have high scores on the teaching style questions are more prepared to state their preference for classroom pictures independently of the particular task for which they may be used. Another way of stating this, is that the individual task/materials match is less crucial with non-progressive than

progressive teachers (as defined by their replies to the teaching style questions). One possible explanation - although it must be admitted that it is dangerously speculative - is that the teachers who score at the progressive end of the scale are more focused upon the individualisation of learning where individualisation takes in both the particular child and the particular task. In other words, that they are more concerned with the whole question of learning 'match' as defined in the H.M.I. primary report (1978). Once again, although a more ethnographic study will not test this supposition in the scientific sense, it may well illuminate it if properly focused. The conditions enumerated with regard to the former point would hold good in this case too. That is to say that one may be able to see more of the connection if the relationship between teachers intention and teaching episodes is made clearer.

Teachers and pictorial literacy

An important relationship between research and practice, which has not so far been addressed in this discussion, centres upon the development of pictorial perception in young children. Research points unequivocally to a complex pattern of development in this respect, notwithstanding the occasional apparent dissenter such as Hochberg and Brooks (1962) for even they do not deny a process of development, they merely note that specific instruction is not necessary for the recognition of depicted familiar objects. Goldsmith (1984) neatly summarises the pattern of pictorial perceptual skills which are normally acquired at different stages in the child's development. Many of the key skills are acquired over the infant school years. The question which springs to mind is, do teachers acknowledge this, either by behaving in a way which recognises that infants will normally have limitations in picture perception ability, or by offering classroom activities which are designed to help in its development? In

relation to the first of these the survey suggests that some limitations are recognised, although this recognition is tinged with, what appears from a research perspective, to be a good deal of optimism about what young children can perceive in pictures. Evidence for the second is less easy to come by since direct questions were not asked about the extent to which activities are mounted with pictorial perceptual development in mind. However, an examination of the additional comments suggests that it is rare.

Only one of the ways of using pictures described in the comments seemed to have elements of pictorial training contained within it, and no direct reference to helping picture interpretation skills was made at all. At least on the face of it the results of the survey seem to suggest that normally teachers do not mount activities to assist the development of pictorial perception. One may even go further to suggest that many of the comments could indicate that teachers usually consider the infant's understanding of pictures unproblematic. Subsequent observation and interviews with teachers may go some way to examining these questions further, consequently they will form one focus for the school examples.

Conclusions

It is appropriate in this study for the conclusions of the questionnaire survey to take the form of things to be pursued in both the design and analysis of the school examples. Although the survey has thrown up a number of interesting relationships it does not provide explanations of them. In most cases there are alternatives which can be illuminated further by more ethnographic approaches. What follows, therefore, is a list of areas which will form at least the initial focus and inform the analysis of the school examples.

1. The question of classroom uses for pictures can be carried from the survey results to the school examples in relation to the following specific foci:
 - (a) Ways in which teachers use pictures to serve developmental ends, and within that features of the particular balance which obtains between those which are mainly aimed at intellectual/linguistic development and those aimed at the affective/social dimension.
 - (b) Ways in which teachers use pictures for children with special educational needs; whether it is different from (a) above and the extent to which their intentions are couched in more analytic cognitive terms. This may also touch upon difficulties which teachers experience with the idea of making greater provision for such children.
 - (c) The extent to which the postulated typology (page 173) is adequate to describe and categorise the uses for pictures in the infant school. Observations to this end may focus upon looking for instances of use which are not accommodated by it, and methods of use which challenge the divisions within it.
2. The question of teachers' preference for educational pictures. The extent to which they are prepared to offer general preferences detached from specific educational uses, which may be focused in the following ways:
 - (a) The extent to which the teacher's preferences are conditioned by what they believe are the children's preferences.

- (b) The degree to which the pattern of preference identified in the survey is evident in the materials in the classrooms.
 - (c) The process and rationale which teachers and headteachers employ in selecting pictures and in particular the part played by pictures in the selection of reading and reference books.
 - (d) Ways in which the apparent conflict between the identified criteria for pictures and the preference for using children's work are resolved, in particular ways in which children's work is used in an instructional role.
3. The question of the nature and perceived value of display in the infant classroom may be followed up by focusing upon the following points or activities:
- (a) The development of a descriptive mechanism to record displays in a way which illuminates those features which have implications for wider educational issues.
 - (b) The purposes intended for displays, in particular, the purposes for children's work in displays with reference to the evidence of the survey that 'reward' was not regarded as a prominent reason for their inclusion.
 - (c) The mechanisms which may exist to allow pupils to participate in, or control, classroom displays. This may take, as a secondary focus, the extent to which displays are interactive with on-going work in the classroom.

- (d) The teacher's beliefs about the degree of attention displays receive from pupils and ways in which this is embodied in the part they play in classroom life.
4. The question of teachers' beliefs about children's understanding of pictures can be pursued via the following foci:
- (a) The sorts of classroom activity which give teachers information on children's understanding of pictures.
 - (b) Instances of aspects of the curriculum in general, and specific activities in particular, which are intended to facilitate the development of skills in pictorial literacy.
 - (c) The extent to which criteria for selection of pictorial materials embody a developmental notion of picture perception skills.
 - (d) Further exploration of identified disagreement with research, especially with regard to effective early reading techniques.
5. Further exploration of the relationship between teaching style and picture use with special reference to the relationship between intentions, use, and evaluation of effectiveness. The criteria of effectiveness will play a large part here.
6. Further exploration of the broader institutional context including:
- (a) School policies on picture use, including defined responsibilities.

- (b) Centralised support systems, including pictorial resources and their retrieval systems.
- (c) Any aspects of the institutional context which might be said to contribute to the pictorial ethos of the school.
- (d) External influences which the staff feel contribute to the pictorial ethos of the school.

The sequential relationship, between the questionnaire survey and the school examples, is such that an initial analysis of the survey results was possible before embarking upon the school examples. Hence, to a considerable extent, the results of the survey were able to inform the approach to the school examples. However, some of the points indicated in the sub-scripts above arose from subsequent levels of analysis of the survey results which were conducted in parallel with some of the school observations. It follows that these inform only the analysis of data coming from the school examples.

CHAPTER SEVEN

THE SCHOOL EXAMPLES : RATIONALE AND METHOD

The main aim of the whole study is to illuminate teachers' beliefs about, and educational practices with pictures, so as better to inform research into the effective use of pictures in learning. The questionnaire survey has produced quantifiable data on those questions which were identified by the exploratory group as characteristic of teachers' views on pictures in the classroom, both in terms of the values held by teachers about them and their accounts of how they were used. The extent to which this is by itself sufficient to meet the intentions of the study depends upon whether what may be generalised from it is indeed applicable to research.

Problems of generalisation of research

Generalisability is never a straightforward issue, and in the present study is further complicated by there being two possible audiences - the traditional research community, and the teachers. Stenhouse (1980) expresses it in the following way:

'Our problem is to find approaches to research which produce theory which is of use both to practitioners of education and to practitioners of educational research' (P.2).

Bassey (1984) also begins from this generally held belief that educational research must be generalisable for the purpose of contributing to educational theory, and at the same time make a contribution to the improvement of practice. He goes on to distinguish 'open generalisation' - a finding which can confidently be extrapolated beyond the particular set of events studied, from 'closed generalisation' which is more descriptive and

specific to the particular set of events studied. There is a third condition which he calls 'relateability'. This picks up Cronbach's (1975) idea that some results which cannot be described as generalisable in either of the first two ways are nevertheless capable of some application by individual teachers. In the present study the intention is that the results should be capable of both some degree of open generalisation by the research community, yet have elements of relateability for the teacher of young children.

Hamilton (1981) points to a problem of generalisation when he argues that the wider the degree of open generalisation a finding may have the less it is likely to have a practical value. That is to say in order to apply to a wide population a finding must be in itself general, and practical applications are by their nature specific to the needs and circumstances of an individual or group. Nisbet and Watt (1984) have this sort of problem in mind when they criticise large scale survey techniques because they may, in an effort to achieve broadly generalisable results, overlook significant subgroups within the sample. They show the danger of the survey obliterating the unique features and patterns within such groups, which in themselves might hold the key to the puzzle.

It is also true that if something is not foreseen and built in to the data collection techniques of a survey it is unlikely to emerge as a result of it, since the instruments do not normally permit a high level of interaction with respondents. Another problem which is not unrelated to this concerns the vocabulary used in the survey instruments. However clearly expressed they ask respondents questions using the language of the researcher, and in an effort to facilitate quantification, the responses are also constrained. In practice, this constraining of responses is valuable in producing results which can lead to open generalisation, but it can conceal wide variations in

the meanings which have been assigned to the questions by respondents. Consequently, the question of whether the researcher and respondents have shared meanings is something which, for most surveys, requires some degree of separate investigation. Similarly, the range of meanings assigned by the respondents requires some examination too.

Case study as a means of complementing the survey

The present questionnaire survey makes some attempt to meet Nisbet and Watt's (1984) point about significant subgroups by including a range of independent variables that permit an analysis capable of testing for those which it was possible for the designer to envisage. The question of vocabulary has also received some attention in that the wording of the survey questions was informed by the exploratory group. Yet it would be pretentious to claim that either of these fully satisfies the dangers outlined above. Consequently there remains a need for the survey results to be complemented by some other sort of data for the following reasons:

1. in order to sharpen the results by providing information on the extent to which meanings are shared by the researcher and the respondents;
2. to complement the references to significant sub-groups which can be made on the basis of the questionnaire replies with additional and more fine-grained information about their characteristics;
3. to obtain indications of significant areas/features which may not have been adequately covered by the survey;
4. to obtain sufficient detail of the application of particular techniques revealed by the questionnaire in order to make them relateable;

5. to add flesh to the bones of the questionnaire results. In Nisbet and Watt's (1984) terms - 'Quoting cases to illustrate gives the picture a three dimensional reality' (P.73).

Having identified this cluster of ways in which the questionnaire survey requires support, all of which are concerned with sensitivity and focus, it is tempting to supply the deficiency by going to the other methodological extreme - full case study.

This is unnecessary since much of it can be provided by additional interviews. Certainly 1, and to some extent 2, 3 and 4 can be accommodated in this way, by going over the questionnaire and asking for clarification. Yet 4, and to some extent 2, 3 and 5 would require some observation of practice in order to be fully effective. In strict terms interview supplemented by observation might be correctly called 'case study'. Adelman et al (1977) defines case study as:

An umbrella term for a family of research method having in common the decision to focus an enquiry around an instance (P.139).

Nisbet and Watt (1984) describe it thus:

The case study draws upon the techniques of observational studies, and aims to give a portrayal of a specific situation in such a way as to illuminate a more general principle (P.74).

Using either definition, it appears that the requirements identified (1-5) do not quite come up to case study. In the first place case study is normally the sole approach for a particular piece of research, in the second place, though it may make some use of quantitative data, it is not normally envisaged as supplementary to it. The elements of 'pure' case study which will be valuable, for the present purposes, can be itemised as follows:

- (a) the use of agreement between a variety of modes of evidence as a measure of validity;
- (b) the minimum pre-specification of what will form the centre of interest in the observations, beyond the connection with pictures and teaching;
- (c) an attempt (reduced by normal case study standards) to locate data within a broad contextual framework.

To avoid compounding terminology, it is better to coin the term 'School example' than to run the risk of suggesting qualities that the method may not contain. Essentially the school examples are a set of expanded illustrations combining interviews with some complementary observation. The school examples are not intended to be quantifiable in themselves, but hopefully will contribute to the quantifiable data from the questionnaire survey.

The interviews will need to be partly structured and partly unstructured, in order to cover the functions already suggested. These may be separately identified as:

1. exploring the teacher replies to the questionnaire;
2. establishing important aspects of the institutional context, in particular those which may influence the pictorial climate of the school;
3. exploring the teacher's values for pictures in teaching, their perceptions of and intentions for their teaching, and their influence on the pictorial climate of the classroom;

4. sharing the result of observations in order to verify them, and seek explanations for ambiguous observations.

It is clear that in order to effectively establish 1, 2 and 3 in a single interview some change of approach from a directive to non-directive approach must occur. Nisbet and Watt (1984) propose such a combination (in reverse order) where the 'focused interview', in the terms of Merton and Kendall (1946), precedes relatively factual information gathering.

The solution to this dilemma is to alter the balance gradually as the interview proceeds. At the beginning playing a listening role, using non-directive techniques, e.g., making comments neutral and brief, and in later stages playing a positive part in the questioning (P.82).

It has already been established that interview alone would not be enough to obtain sufficient detail of the application of particular techniques used by teachers to make them relateable. Observations are also important to gaining a deeper understanding of what teachers mean when they describe classroom activity.

The need to establish the teacher's intentions for the period to be observed is paramount. An observation of the teaching/learning interactions cannot be other than superficial unless some knowledge of both the teacher's intentions and values is available to the observer. Delamont and Hamilton (1984) make this the main platform in their appraisal of ethnographic approaches to classroom observations. It is equally important that the 'vehicle' for the expression of these intentions be accepted and incorporated into the mode of observation. This is to say, whether the teacher expresses his/her intentions in terms of learning objectives for the pupils, or as a set of activities, or as set of 'conditions and treatments' (Hargreaves et al 1975), or in any other way, it is in those terms as far as is practical and possible the observation must be made.

There are two aspects to this contention, one practical and the other ideological. In practical terms one cannot observe everything which happens in a teaching episode. As Stubbs and Delamont (1976) have it:

There are two distinct problems in research into social interactions: one is to see what is going on; the other is to find a way of describing it (P.156).

In this case 'what is going on' in general terms is the use of pictures in the classroom, but in practice this might be viewed from many different perspectives. Logically the perspective which is chosen should be selected on the grounds that it is as congruent with the teacher's as possible. Teaching is an interaction which can only be judged on the basis of what, in any particular circumstances, it was hoped to achieve. Since the teacher's hopes (or intentions) can be couched in many different ways, what is observed, and how it is observed, must be equally various. In other words, the teacher's intentions and the mode of observation should be reflexive. This reflexivity lies at the centre of ethnographic principles as announced by Cronbach (1975), Smith (1980), and Delamont (1984) in that it recognises the uniqueness of the individual teaching circumstances.

The present observations will use measures which may, in Rosenshine's (1970) terms be either 'low inference' in that they merely note and count explicit phenomena, or 'high inference' in that they require the observer to make judgements about the meaning of events, depending on the way in which teachers couch their intentions for the period to be observed. On the face of it, the use of any low inference measures at all may seem to be at odds with those theorists quoted to support a reflexive approach. Wolcott (1967) and Delamont (1984) in particular are opposed to systematic observation techniques. However, closer examination of their objections reveals that they are usually referring to schedules of the Flander's Interaction

Analysis type, and their principal objection is related to the insensitivity of such approaches in not identifying and responding to the teacher's intentions and the wider context of learning. In the present case such techniques will only be used as a direct response to singular qualities of the situation, and therefore may be seen as enhancing the reflexivity of the observations rather than reducing it.

Adelman et al (1977) identify two ways in which investigation of an individual case, or 'bounded system', can relate to research design:

An issue or hypothesis is given, and a 'bounded system' is selected as an instance drawn from a class, or a 'bounded system' is given, within which issues are indicated, discovered, or studied (P.95).

The first of these is predisposed to lead to generalisation about 'the class', whereas the second is predisposed to lead to generalisation about 'the case'. In the present study the emphasis of the 'School Examples' taken as a whole will serve to extend the meaning of the numerical data by showing something of the range of meanings which might be represented by a particular reply, or pattern of replies. They will also serve to explore how teachers' explanations of their educational values and practice result in observable classroom activity. At the same time some instances of practice may be worth describing in pursuit of the element of 'relateability' referred to earlier.

In summary the questionnaire survey has provided the basis for some open generalisation: however, the practical value of such generalisation depends upon the extent to which the meanings attached by teachers to individual questions are illuminated, and the extent to which significant subgroups within the sample are identified and described.

One form of enhancement is to complement the questionnaire with interviews, but this alone is not sufficiently sensitive, nor does it make a significant contribution to the relateability of the work. Hence a pattern is adopted which combines interview and observation in what are termed 'School Examples'. The interviews have four functions: to clarify the replies given to the questionnaire, to establish something of the wider educational and pictorial context of the classroom, to define teacher intentions for a particular teaching episode, and to explore the teacher's responses to an observation of that episode.

The observations will be structured, as far as possible, to respond to the teacher's intentions, consequently appropriate methods of observation are likely to vary. This variation is justified in terms of the ethnomethodological principles which it is felt necessary to apply if the school examples are to serve the purposes required of them, in particular to increase the sensitivity and focus of the survey data.

Method

It was intended that each school example would be based on two visits to selected schools. In each case the visits would extend over a large part of the working day. They would usually be separated by a day or two to enable the observer to present a report of the first visit, and gain the interviewee's agreement on it on the second.

Since the principal reason for the school examples was to complement and enrich the findings of the questionnaire survey, it was felt appropriate to include some direct enquiry about the completion of the questionnaire itself. That is to say, at some point most interviewees were taken through a semi-structured schedule (see Appendix page 63) designed to elicit their

feelings about the questionnaire and discover both what they found difficult or unclear, and something of the meanings that they placed upon the terminology used in it. The results of these are reported in Chapter Four. The main thrust of the school examples has a more ethnographic flavour, arising from a combination of interviews and observation of varying levels of formality and structure. The principles of ethnographic enquiry inform the process in two ways. First, the nature of the data is varied and requires techniques of analysis which derive from this tradition. Second, hypotheses are developed, tested and refined as individual school examples, and the programme as a whole proceeds, in the manner described by Becker (1958), Spradley (1980) and Delamont (1984). In the present study, however, the term 'hypothesis' must be taken to mean subsidiary questions or areas for clarification subtended by the main pre-determined questions, which are being illuminated, rather than changed by this process.

Each school example is to include at least one interview with the headteacher, interviews with teachers including pre and post observation interviews, observations of the school in general with an emphasis upon displays, and observations of specific teaching/learning episodes.

The interviews

1. The headteacher interviews

Interviews with headteachers, in common with others, move from a directive to non-directive form of questioning as the interview proceeds. They begin with a series of questions related to the completion of the questionnaire, move to a less structured account of the background, ethos, and perceived pictorial climate of the school, then to a completely open exploration of the headteacher's views on the value of pictures in general and their place in the infant school. As

part of this process information will emerge about any official or unofficial school policy concerning pictures or display. This may include information on any central storage or supply system, staff responsibilities for display, resource links with external bodies, and any overt pattern of approval about the use of pictures which may exist. These interviews are premised on the assumption that an important aspect of the pictorial climate of a school is the extent and nature of any top-down influence on the way teachers use pictures in their classrooms.

2. General observations

Following the headteacher interview, and usually before the teacher interviews, time is to be spent making general observations of the school, especially the displays. This will also afford opportunities to spend some time in a range of classrooms, and to talk informally to teachers. These observations are of the type which Spradley (1980) terms 'grand tour', designed to become sensitive to the broad ambience of the school, so as to set later observations in context. The observation of displays, however, is less generalised in that it is intended to develop a descriptive system for their recording. This will gradually develop over the course of the full programme of school examples, and include taking photographs which will, on the one hand, record the appearance of individual schools and classrooms, and on the other, build up typical examples of characteristic types of display to illustrate the categories used in the descriptive system.

3. Teacher interviews

Teacher interviews can be divided into group and individual interviews. Group interviews involve a number of teachers from the same school, and their main focus is the completion of the questionnaire. The nature of

the group interviews is such that they are necessarily general and this is reflected in the way that they are reported, mainly by noting levels of agreement within the group.

The individual teacher interviews have more prominence because they are more extensive both in the ground covered, with more emphasis on open questions, and in the level of specificity and detail it is possible to achieve. In many cases they also lead into classroom observation which further places the teacher's comments and opinions in context. Where this is the case the same teachers are also the subject of pre and post observation interviews.

4. Pre-observation interviews

The idea that the classroom-based, teaching episode observations should be accompanied by pre and post-interviews with the teacher concerned is partly influenced by the work of Bennett et al (1984). They developed an approach with a sequence where what they call the 'pre-task' interviews were concerned to select specific children for observation, the task planned for the session, the teacher's reasons for it, and the perceived difficulties which might arise. The post-task interviews had as their main purpose gaining the teacher's reaction to the observer's findings, their general comments, and their future intentions in the light of the observation.

The differences between this approach and the present one reflect differences in the type of observation being made and reported. Bennett's study was focussed upon individual children and single specific tasks, whereas the present observations are wider both in terms of the number of children involved and the number of tasks which might be encompassed within a single observation session. However,

these differences are slight compared with central intention to observe what is actually going on in a teaching episode. Both acknowledge the importance of the teacher's intentions in order to make such observations successful. However, knowledge of the teacher's intentions goes further than merely assisting observation technique, since in each case the teacher's planning is taken as an essential part of the teaching episode, not merely an event to which it is connected. In short the pre and post task interviews may be seen as an inextricable part of the observation, not an adjunct to it, in that the classroom events only have a professional validity in relation to the teacher's intentions. It is not a question of us not being able to judge the effectiveness of the teaching without the intentions, but that we cannot even see the events without them.

The present pre-observation interviews are seen as having three stages: to specify what will be done in the episode to be observed, to illuminate how the teacher will judge its effectiveness, and to agree an observation procedure.

In each case, after gaining permission to make an observation, teachers are asked to describe what they and the children will be doing in the period concerned, and what their intentions are for the activity.

There is a wide range of possibilities for different sorts of reply.

At one extreme success may be envisaged merely in terms of the activity occurring as planned, with no additional intentions being offered. At the other extreme teachers may state intentions in terms of learning objectives which can arise from the activity using a precise framework for relating process to product. Yet again, outcomes may be stated in affective terms, which concern the feelings to be generated by the activity, and refer to neither learning nor process.

The next stage builds upon this statement of intentions, but is one of delicate negotiation in which the teacher indicates key things which will be indicators of the activity's success and the observer suggests ways of recording these. These suggestions are modified until the teacher is quite happy with them. It is crucial that this process does not lead to the observer imposing his view of criteria upon the teacher.

In some cases the way that intentions are formulated might, of itself, suggest an obvious and easily agreeable mode and focus of observation. On other occasions there may need to be an extended exchange during which the subject and/or method of observation is revised a number of times before it gains the teacher's full acceptance.

The focus of the observation will vary, and the techniques of observation will vary accordingly; what is important is that the technique should match the teacher's intentions. At one extreme the teacher may want a broad and wholly impressionistic account of the extent to which the activity itself conformed to the original plan. At the other extreme the teacher may require precise and quantifiable detail of the occurrence of what are taken to be pre-specified learning behaviours on the part of selected children.

It follows that the pre-observation interviews must be timed to allow for the production of a schedule in a form which the teacher can understand and agree before the observation takes place.

6. Post-observation interviews

Normally the post-observation interview is conducted immediately after the observation. It may be seen as divided into two stages or steps.

The first step is to ask the teacher for his/her general impressions of the extent to which the teaching episode met her/his original expectations. Impressions may also be sought on particular parts of the activity which were pre-specified as important to the success of the whole. To this extent the interview has a directive element, but beyond that every effort is made to enable teachers to offer an evaluation in a completely open way so that what emerges as important to the teacher after the event can be compared with the priorities expressed in the pre-observation interview.

The second step is to make the findings of the observation available to the teacher and note her reaction. This may lead to some discussion of any differences between them and her own observations. It may also lead to comment on planning of the activity, the effectiveness of the observation techniques employed, the pictures used, and implications for future planning of similar activities.

The centre of the post-observation interview is that it gives the teacher an opportunity to review the use of pictorial materials in the light of the congruence between planning intentions and what occurred.

The classroom observation

The classroom observation can be seen as having three phases: informal visit, structured observation, and collation.

Whenever possible some time is spent in the classroom before the pre-observation interview. No structured observation is carried out in this time, but it is seen as having three important functions. First, to enable the children to become accustomed to the presence of the observer in their

classroom, hopefully reducing the novelty of the observer during the structured observations. Second, to enable the observer to familiarise himself with the classroom environment especially the normal relationships between the children and teacher. Third, to accustom the teacher to the presence of the observer, building confidence and allowing any explanations which the teacher may have about the classroom or its activity to be made.

The second phase is the observation proper which conforms with the conditions agreed in the pre-observation interview. The period of observation is also agreed, and may vary from half an hour to half a day, depending largely upon the type and intensity of the activity being observed. (See Appendix pages 65 to 101.)

The third phase involves a preliminary collation of the results of the specific observation, at least to the extent that the main thrust of the findings is made accessible to the observer and teacher. The need to present these findings to the teacher at a point where the events of the teaching/learning episode are still sharp in her memory means very rapid collation. This requirement therefore becomes one of the factors taken into consideration in the design of the observation schedule.

Recording techniques

Two main techniques of recording are used in the interviews, written field notes and audio recording. Each interview is written down as it proceeds in a way which extracts the main sense of the exchange and extends to noting the language of the interviewee where the exact words seem to be of particular importance. These notes which are essentially cryptic, and constitute what Spradley (1980) calls a 'condensed account', are made more readable, both in terms of slight expansion and presentation (being typed)

before they are returned to the interviewee for comment, amendment and agreement. This polishing up process is made as minimal as is compatible with their making sense to the interviewee. The Appendix, pages 61 and 62 gives examples of reports at the point where they were returned for comment.

The process described above is helped, in many cases, by reference to audio tapes recorded at the interview. These are especially valuable in confirming the exact words used, but serve also to remind the observer of the general ambience, development and emphasis of the whole interview. Although these, and other, advantages are considerable, the possible disadvantages of tape recording during interviews are also substantial. On balance it was decided that it should be excluded whenever there was a likelihood that its presence would inhibit the interviewee.

For the observations there are three main recording techniques employed. For the 'grand tour' a descriptive schedule with a particular emphasis upon display issues. This is complemented by a series of photographs intended to illustrate particular types of display. The classroom observations are recorded using the particular schedules designed in consultation with the teachers concerned. Whether these schedules are highly structured or impressionistic, they normally contain some record of the passage of time to ensure that a flavour of the progression of events is present. This varies from strict, short interval timing in the case of the most structured schedules to wider, more irregular intervals for less structured observations.

The procedure for gaining the teacher's agreement to the records is in two stages. The first involves bringing records of the first visit to the second, and spending a little time with each teacher concerned, given that they have found time to read them. The second entails sending a copy of the

records from the second visit to the school with a covering letter (see Appendix page 102) which invites comment and modification.

Techniques of analysis

The analysis of the data depends to a large extent upon the refinement of perceptions which can arise from the progressive interpretive techniques advocated by many commentators on ethnographic research and typified by Frake (1977). He describes a reflexive process in which, within the focus of the original research question, observations lead to the development of sub-hypotheses which progressively refine the focus as the case study proceeds. Thus the analysis is not merely a summative event, but to some extent goes on as the study advances. An advantage of this way of working is that it assists in the development of appropriate conceptual frameworks which in their completed form will inform the final analysis and its presentation (Nisbett and Watt, 1984). Becker (1958) shows a similar model, in which a large part of the analysis takes place in the field. Spradley (1980) describes the idea of progressive refinement in terms of a sequence which moves from 'descriptive observation', through 'focussed observation' to 'selective observation'. It must be recognised, however, that the set of school examples which provide the data for the present study differ substantially from the more orthodox case studies to which these workers refer. What Frake (1977) terms the culture under investigation in a true ethnographic approach is necessarily wide, and the process of engagement is one of immersion, as we see, for example, with Marsh (1973). The present school examples, being principally supportive to a survey, are narrower than this, the area of interest is more pre-determined, and the time given to individual schools is short. Consequently, whilst the present analysis will benefit from some elements of this reflexive process, it cannot do so to the same extent.

The approach to analysis of the present data is partly influenced by Becker (1958) in that noting the frequency and distribution of the selected phenomena is the main thrust, and partly by Glaser and Strauss (1976) in that the comparison of similar incidents is used to develop and clarify categories to suggest models of explanation. There is some difficulty in trying to express ethnomethodological analysis in outline, because there is an inevitable tendency to lose the essentially holistic character of the activity in a linear statement. Glaser and Strauss express some aspects of this in the following way:-

Each stage after a time is transformed into the next - earlier stages do remain in operation simultaneously throughout the analysis and each provides continuous development to its successive stage until the analysis is terminated (p. 105)

With this in mind the process of analysis of the present data may be expressed as having two phases. The first phase takes place mainly in the field and the second phase is a summative analysis carried out when all the data have been collected. The characteristic difference between this and more orthodox case studies is that a greater emphasis is placed upon the second phase.

PHASE 1

- (a) Check on the distribution and frequency of phenomena.
- (b) Comparison of examples of categories.
- (c) The development of explanatory models for testing by subsequent observation.

PHASE 2

- (a) A more deliberate quantification of significant occurrences.
- (b) Search for contrary examples which oppose the models that have been developed.
- (c) Separate analysis of what emerge as the most significant areas.
- (d) Integration of findings within coherent explanatory models.

Phase 2 (c) requires further explanation. In effect it means that certain ideas, concepts or models which have emerged from Phase 1 as of particular significance may be subjected to separate and more detailed analysis using techniques which are individually selected. In this way some of the terminology most frequently used by the teachers, and thought to be pivotal, is the subject of a version of semantic analysis. The technique used is a somewhat diminished version of Spradley's (1980) approach using the idea of cultural domains. It is diminished in the sense that being only partially verbatim the present data are not open to all the levels of analysis which he suggests, and at any event such levels were felt unnecessary for the present purpose.

Another special analytical approach which is used for certain key concepts is what Bliss et al (1983) call systemic networks. The systemic network is essentially a taxonomic diagram to show some of the important relationships which may be thought to exist between significant concepts. It is a way of defining terms by designating the way in which they are equal, superordinate or subordinate to related terms. It is a useful way of unpacking ideas which are both complicated and deeply embedded in the cultural context being

studied. At the very least, the development of such networks serves to assist in the process of making significant groupings of data to enable frequency and distribution statements to be made. In the present study the technique is used for the analysis of 'display' with the intention of clarifying some of the contradictions which seem to be associated with it in teachers' minds and ways of operating.

The sample

A total of 15 schools were used as school examples, eight from Durham and seven from Leeds. They were randomly selected by county from the total of 34 who indicated their willingness to talk to the researchers by completing the appropriate part of the questionnaire. The extra school from Durham was intended to reflect the different proportion of these returns received from the two counties. In effect then the selection was eight from the 19 returns received from Durham, and seven from the 15 returns from Leeds, slightly less than half of all those offering themselves. (See Appendix, page 59.)

In four of the cases the return was made by the headteacher, which meant that for these no structured classroom observation was made. Unusually in these cases, group meetings were arranged with staff members to supplement the headteacher interviews and general observations. With the remainder, that is to say where a classroom teacher made the offer, there was no difficulty in arranging the whole range of interviews and observations, including headteacher interviews.

A total of 23 day visits to 15 schools produced 57 recorded interviews, of which 21 were general in the sense that they were non-directive in form and aimed at school ethos or opinion about pictures and learning, 18 were pre and post-observation interviews with individual teachers, and 18 were

specifically directed to the teacher's experience of completing the questionnaire. All of these were subject to written records and in about 60% of cases audio-tape was used.

At the same time 27 separately recorded observations were made, nine of which were specific classroom observations linked with pre and post-observation interviews, and 18 were of the school or classroom in general with the emphasis upon displays. In eight cases photographs were used to record aspects of display which would be useful in illustrating the system that was developed to describe displays.

It is important that the above count of different sorts of interviews and observations should not be taken as the sum of the school example experience. A great deal of the information which enables the observer to order, correct, and generally make sense of the data is the result of non-recorded impressions and scores of casual contacts with teachers and children in these schools. In short, the recorded data represent an attempt to permanentise representative aspects of what was an essentially holistic experience.

Summary of Method

The data largely take the form of records of interviews and observations. Interviews are held with headteachers, class teachers and groups, and may have one of four identified foci. These are:-

1. The completion of the questionnaire (coded 'e' in field notes and records).

2. General views on the place of pictures in infant education and/or background to the school (coded 'a' in field notes and records).
3. Pre-observation (coded 'b' in field notes and records).
4. Post-observation (coded 'd' in field notes and records).

Observations may be identified as having two foci which are:-

1. Of the school or classroom in general, with an emphasis upon display (coded 'f' in fieldnotes and records).
2. Of specified teaching and learning episodes, linked to the pre and post- observation interviews (coded 'c' in field notes and records).

The methods of analysis draw on the ethnographic tradition in employing a reflexive approach with gradually refines the terms of both the explanatory models and the focus of observation over the course of the fieldwork. The resulting data are finally the subject of summative analysis which tests the explanatory models in the light of the frequency and distribution of events, comparison between similar events, and a careful search for instances which refute the models in question. Some aspects of the data are the subject of separate analysis with what are thought to be especially appropriate techniques.

CHAPTER EIGHT

CLASSROOM USES FOR PICTURES

Ways of describing functions

The ways that teachers described the function of pictures can be grouped under three headings: descriptions that focus upon the classroom activity that the picture supports, descriptions which focus upon qualities which are thought to be intrinsic to the pictures themselves, and descriptions which focus upon the learning or development which the picture may induce in the pupils. The first of these, descriptions which focus upon a classroom activity which the picture supports, were the most common, with about half the references to uses for pictures given at interview being of this sort (see Appendix pages 105, 109 and 111). Typical examples are 'to support topic work', 'as starting points', 'as a stimulus for reading'. The second way of expressing functions by pointing to the intrinsic qualities of pictures accounts for about a quarter. Examples are 'for enjoyment', 'for giving information', and 'for ideas in general'. Ways of describing functions of pictures which focus upon learning or development account for the remainder. Examples are 'the development of modern language', 'for the teaching of colour', and 'for the development of taste'.

Areas of learning and development

By far the most commonly mentioned area of development is language. This is especially visible in the pre-observation interviews. Table 12 shows the teacher's intentions for the observed activity analysed in terms of the sorts of learning or development which they intended would come from it. Among those intentions which are themselves couched in developmental terms,

as opposed to 'activity maintenance' terms, language development in one form or another accounts for more than half. This is consistent with an emphasis on the 'basics', but it is interesting that mathematics and numeracy receive little mention by comparison, since virtually all texts on mathematics for young children are heavily illustrated and frequently incorporate the pictures into the activity demands in a very direct way. This discrepancy may in part be explained by what are perceived as the different pictorial needs of the areas. It is possible that the best pictures for supporting language depict rich and complex events. Those supportive of numeracy can be relatively simple items. A comparison between reading books and *maths* texts would seem to bear this out impressionistically. The observations also bear this out in that where pictures were used to support language the subjects were often either complex or exotic, whereas not only were the pictures used for maths simpler, but they tended to be used in a straightforward item counting way. If this is so then the fairly frequently articulated belief of teachers that the real thing is preferable to pictures applies differentially to the two areas of development. To be clear, the claim is not that teachers necessarily do work more from real things rather than pictures in maths than they do in language, but that this could be both a practical proposition, and be supported by acceptable beliefs about the ideal nature of learning materials.

TABLE 12

Grouping of main intentions articulated by teachers for the
observed activity (c)

Language focussed

General language development	- 6
Specified language skills	- 4
Generation of discussion	- 2
Total	- 12

Other 'basic' focussed

Mathematical understanding	- 1
Total	- 1

Social/affective development focussed

Encouraging sharing	- 1
Emotional response/excitement	- 2
Total	- 3

Other skills focussed

Ability to use slide viewer	- 1
Observational skills	- 3
Tracing skills	- 1
Colouring skills	- 1
Total	- 6

Activity maintenance focussed

Ability to hold attention	- 1
Ability to select activity (puzzle)	- 1
Ability to successfully complete activity	- 1
Maintain task involvement	- 1
Total	- 4

It is appropriate at this point to examine the meanings applied to the term 'language' by the teachers. For this purpose a version of semantic analysis (after Spradley, 1980) was used, in which a 'cover term', in this case language, was analysed by listing the terms which it subsumed and their semantic relationship to it. The results in this case seem to indicate four significant features of the way the term was commonly employed. First, it usually referred to talk, and other facets which may be implied from the larger context of language use, such as listening, were not necessarily implied by the term itself. Second, the aspect of talk which dominated was vocabulary: the number of words that a child had at his or her command. Third, the term was commonly used in a way which made it synonymous with thought or general mental activity. Fourth, the term was used in a way which suggested that all language acquisition was educationally desirable. There was no suggestion of incorrect or bad language contained in the common usage of the teachers.

Other observations tend to support the first three of these, but not the fourth. Where the activity being observed was a free one in the sense that having set up the situation the teacher left the children to get on with it, the teachers seemed quite happy that language had taken place and did not question the quality of it. This was the case with Anne at Ayston where the children were left to explore a slide viewer, and with Irene at Festingly where the children were free to choose and complete a jigsaw puzzle. In both cases the teachers expressed satisfaction that language had been used by the pupils and there was no suggestion that this was anything but good. It should be noted, however, that in these cases the teachers were not themselves directly involved with either monitoring the language being used or actively generating it; this was trusted to the activity itself. In the case of Beeser, which was in effect a fairly straightforward art lesson, Celia expressed disappointment with the language because they had not got

around to 'discussion', which is where she had anticipated the language work taking place, rather than as children talked to each other. It would appear, therefore, that her original intentions were concerned with some specified sort of language which would arise in guided discussion. Other observations which included language work in their intentions (Ceasham, Gee Park, Jayling, Kayton Hall, and Leemer) were structured in a way which had the teacher talking to the group of children concerned. In each of these some degree of selective reinforcement by the teachers was clearly evident. It is important to note that this normally did not take the form of telling children that a word was wrong; rather that some were more positively reinforced than others. This is complicated by these activities being much more centred upon the children accurately giving information than was the case at Ayton or Festingly. To a large extent the children were responding to direct questioning so that rightness or wrongness was inextricably tied to the correctness of the information which they were reporting, as well as the language itself. Jane at Ceasham was interesting in this respect because not only were her intentions the most specific linguistically (the revision of the words 'where' and 'what' and to help positional language), her technique of receiving the language and separating reinforcement of the language from the correctness of the answer seemed unusually sophisticated. In summary two types of activity were observed, one of which presumed that language would attend an activity but did not monitor or direct it, and one of which arose from teacher questioning. The second of these employed a good deal of selective reinforcement of the children's language. The more the teacher was directly involved with generating the language, the more the quality of language seemed to be discriminated and differentially encouraged.

The pattern of picture use can be similarly divided into what might be termed directed or undirected in respect of the same observations. In

Ayston and Festingly the children were largely left to explore the pictures for themselves in a comparatively undirected way, although the activity itself was set up and controlled by the teacher. In Ceasham, Gee Park, Jayling, Kayton Hall and Leemer the way in which the pictures were explored, and the features of the pictures which would be the focus of attention for the group, were largely directed by the teacher. There were some similarities within the specific approaches used here. All the pictures were photographically realistic, all were coloured, the pictures were either in the hands of or close by the teacher, each was primarily a process whereby the teacher originated questions related to the pictures and the children answered them. In every case reference was only made to the subject content of the picture, neither the style nor medium was mentioned. Whilst there were quite distinct variations in the openness of the questions, the mode of answering was similar in all cases in that the answer was given to the teacher who commonly elaborated it, one child at a time answered who was usually selected by the teacher from raised hands, and children's answers were short, commonly one word.

Although there were some differences in the format of these sessions, the similarities were more striking, particularly in view of the range of different intentions held by the teachers. It is probably fair to describe the patterns observed as a common format for what most teachers in the study termed 'discussion', where that discussion was based upon a picture.

It is useful at this point to consider the extent to which the particular uses the teacher intended the children to have for the pictures were realised. In each case it was intended that pupils would derive information from the pictures which enabled them to answer the teacher's questions. The time spent by children in looking at the pictures was not systematically quantified, but it was generally observed in each of the sessions. The

impression gained was that children spent a very small proportion of time looking at the pictures with by far the greatest amount of time looking at the teacher. The usual pattern was that pupils would look at the teacher all the time that she was speaking and dart a quick glance at the picture before raising a hand. On many occasions the hand went up without a glance at the picture. The opportunity to make a specific observation of this occurred when Valerie asked that, in parallel with a general group observation, Brian be observed in terms of the amount of attention he paid to the lesson. This included noting the number of times he looked at the picture (see Appendix pages 76 to 80). In a period of ten minutes, during which the teacher stood by and frequently gestured towards the pictures as well as making verbal references to them, Brian was seen to look at them only once, and that a mere glance. For the remainder of the period, some 55 minutes, much of which was taken up with colouring pictures of spiders, he did not look at the pictures at all. Brian cannot be regarded as typical, particularly because he was singled out for special attention to check whether his new hearing aid (radio microphone) allowed him to participate fully in the lesson. It is, however, worth noting that it required close observation to establish that his attention to the picture had been so little. The teacher had not noticed any lack of attention from him.

Three other observations gave information on the extent to which pupils used the pictures as intended in these sessions. Teachers from Ceasham, Festingly, and Kayton Hall were all interested in generating language directly from the picture content. In each case the teachers defined success in terms of the amount and type of language used by the children, and a schedule was designed and agreed to that end, which among other things discriminated language generated directly by the pictures from other language (see Appendix page 70). Using this structured estimate, the amount of language informed directly by the pictures was observed to vary from 10%

in the case of the free activity at Festingly to 17% for Kayton Hall and 20% for Ceasham. It should be remembered that with the last two virtually all the teacher's questions related to the pictures, and when asked at the end of the session to give their estimate both of the teachers felt that most of the children's language had been thus informed. Consequently, they were rather suprised at the results of the detailed observations, but agreed that much of what they had taken to be informed by the picture might simply have been from the existing general knowledge of the pupils.

A different expectation of pupil use of the pictures was intended by Valerie at Gee Park. She intended that her reception class would gain information that they could use in colouring outline drawings of spiders (see Appendix page 82). The complete session began by Valerie drawing the children's attention to four large close-up photographs of a common spider, a tawny coloured creature with bright yellow spots on its back. From direct questioning about the detail of the pictures, including mention of the colours, the centre of discussion moved to children's anecdotes about spiders, to emotional responses to them, singing 'Incy Wincy Spider', listening to a taped spider story, and finally to colouring in the workbook. The pictures remained prominent during the period that children worked on the colouring. Of some 30 large spiders and 90 small spiders, not to mention a further 30 drawn by the children themselves, none were coloured in a way which resembled the photographs. Indeed, there were no examples of a colouring which acknowledged the outlined spots at all. In each case they were coloured over to match the main colour(s) in spite of their prominence in the photograph. The first to be shown to the experimenter was coloured solidly black. When asked why the child replied 'Because that's what colour they are, isn't it?'. Several other pupils accounted for it in the same way. The most popular colour turned out to be plain black, plain purple was next and most of the remainder were carefully parti-coloured

around the mid-dorsal line - red/green, orange/green, yellow/red, and so on. It became clear that for the most part colouring types tended to run in tables, with each child from a particular table choosing the same colour, although there were some exceptions. It should be noted that each child had a complete set of crayons, which included a tawny brown and a bright yellow close enough to the colours in the photograph. It may be significant that the teacher did not specifically instruct the children to copy the colour, but had expected that they would do so anyway. It is possible that children were making reference to what they believed to be the 'real' spider colour, notwithstanding the conflicting evidence of the photograph, though in the parti-coloured examples this seems unlikely. They may have been merely copying other children, but the replies of those asked did not bear this out, or it is possible that they made no reference at all beyond the usual art activity of colouring in what they felt to be an attractive way. Any combination of these in any proportion is possible. However, what is almost certain is that none of the children referred to the picture for information on how a spider is coloured. In this respect information which the teacher had expected the children to derive from the pictures for the completion of the task was not used.

Another focus on the use of pictures is found in the different ways that teachers employed them in similar activities. Five teachers in all, those at Ceasham, Gee Park, Jayling, Kayton Hall, and Leemer, engaged in using pictures to 'draw language' from the children, using the discussion format described earlier. In each case the picture was to act as the stimulus and the source of information for the children. This last point is crucial in that the picture was presented as an especially valuable source of information which was not expected to be already in the possession of the children. In practice there were very wide variations in the extent to which the teacher retained the picture as the point of reference, or asked

questions which could be answered by information contained in the picture. At one extreme Jane at Ceasham retained the picture as the centre of the activity throughout. Almost all the direct questioning was concerned with something which could be seen in the picture or was following up something said by a pupil. She deliberately directed the attention of the group to the picture both verbally and non-verbally by touching and deliberately looking at it herself. It is also notable that, of the teachers observed she was the one who allowed the children most contact with the picture, permitting them to touch the surface. Jane's group answered throughout in terms of things which they could see in the pictures, and appeared to look at them more than other groups.

Mary at Kayton Hall had similar intentions for the session, and the groups themselves were similar in that they were children selected on the basis of an identified need for more language work than other pupils. The sessions began in the same way, by the teacher drawing the children's attention to the pictures and asking them what it was about. Mary, however, confined the questions which were directed at the picture itself to the names of contained items. As the questions became more complex so they moved away from information contained in the picture. For example, a question such as 'In what country can tigers be found?' could not be answered by looking at the picture. After about four minutes of the session there were no further references made to the picture, and no questions asked which drew upon information in the picture. However, it is important to note that the subject of the questions, i.e., 'the tiger' was the same as the subject of the picture. It is perhaps not surprising that children looked at the picture very little and then only at the outset of the session.

For the purpose of this analysis the most important difference between the ways that Jane and Mary used pictures was the extent to which the questions

enabled answers to be informed by the picture. It may be significant that there were differences in the amount of utterances by the children.

Although Mary's session was almost twice as long as Jane's there were less than half of the total utterances, and within that the proportion of replies drawn from the picture was smaller too: 17% for Mary and 20% for Jane. One may say that in any given period Jane's children made about four times as many utterances of any sort, and about five times as many which drew upon information in the picture than Mary's children did. The remaining observations of 'picture discussions' fell between these extremes in terms of the extent to which teachers framed their questioning so that replies were informed by the pictures, but tended more to Mary's end of the scale than Jane's.

Special educational needs

It was the deliberate policy of the experimenter to avoid introducing the question of special educational needs during the interviews. It was assumed that if pictures were seen as particularly valuable for children with special educational needs this would emerge of its own accord during the open parts of the interview. Such an emergence without prompting would have indicated an association between the two in a way that responding to direct questions would not. In the event none of the interviewees, neither class nor headteacher, mentioned special educational needs, or children experiencing particular learning problems during the interviews. It was all the more surprising therefore that when it came to activities selected by teachers for specific observation children with special educational needs figured very largely in them. Three of the teachers, Jane at Ceasham, Betty at Jayling and Mary at Kayton Hall, deliberately selected small groups composed entirely of children who had some sort of learning difficulty. Of the remainder, where the groups were not selected in this way, four

teachers, Anne at Ayston, Irene at Festingly, Valerie of Gee Park, and John at Leemer, asked the observer to pay specific attention to children within the group whose learning was a cause for concern to them. In all, seven out of nine teachers directed the observer to watch children with special educational needs. In the evaluation of the sessions only one of the nine teachers, Gill of Midley, did not spend time assessing the value of the activity to individual children who had learning difficulties. It would appear from this that whether or not special educational needs is an idea which connects with picture use in teachers' general thinking, it does figure in practice.

In the learning episodes observed there was nothing immediately evident to distinguish the ways in which pictures were used with groups of children with learning difficulties from others. Differences were evident, however, when individual children with learning difficulties became the subject of the evaluations. Other children were usually spoken of corporately, as a group, who might be said to 'have worked well', or 'the quality of language being good' but for the group as a whole. Groups of children with learning difficulties were more often spoken of in terms of the achievements of individuals, usually in terms of their perceived needs. For example, Jane in evaluating her work with the 'slower' language group only made comments about individuals. These included such remarks as 'he gave a higher response rate than usual', 'he waited his turn', and 'she found it difficult to focus on the activity'.

Although it is not possible to point to particular teaching techniques with pictures being applied to children with special educational needs, the number of times that teachers chose groups with learning difficulties for the 'picture discussion' approach may be an indication that teachers consider this a technique which is especially valuable for such children.

However, evidence from the same set of observations shows that it is not reserved for them alone.

Categorising uses for pictures

What teachers and headteachers had to say about the uses for pictures was analysed in terms of the suggested typology (page 157).

TABLE 13

Interviews analysed in terms of number of comments on functions of pictures in terms of postulated typology

	<u>Headteachers</u>	<u>Teachers</u>	<u>Total</u>
<u>Illustration:</u>	1	6	7
<u>Stimulation:</u>	17	19	36
<u>Reinforcement:</u>	7	4	11
<u>Example:</u>	7	3	10
<u>Explanation:</u>	7	4	11
<u>Mediation:</u>	3	1	4
<u>Decoration:</u>	2	6	8
<u>Diagnosis:</u>	1	0	1
<u>Surrogation:</u>	15	5	20
Totals	<u>60</u>	<u>48</u>	<u>108</u>

The results are shown in Table 13. Two things are notable about this. First, that the suggested typology was able to accommodate the uses mentioned by teachers with the exception of those which were described only in terms of the activity or school subject which they supported. For example, 'in topic work' or 'for helping language', where the descriptions are locational rather than functional. Second there is a considerable agreement, if differential emphasis, between class teachers and

headteachers. For example, both mention the stimulative role more often than any other. At the other end of the scale both mention diagnosis least, or joint least in the case of headteachers. Some differences are visible between them: headteachers placed more stress upon the surrogative role, but this reverses in respect of the illustrative role. None of the possible categories are entirely neglected, although at this point in the analysis the diagnostic role is mentioned only by one headteacher.

It is interesting to compare the incidence of mention of different uses in this table with the observer's categorisation of uses seen in the practical activities shown in Table 14.

TABLE 14

Functions of pictures in observed activities in terms of
postulated typology

	<u>SCHOOL NUMBER</u>									TOTALS
	1	2	3	6	7	10	11	12	13	
Illustration										0
Stimulation	/		/	/	/	/	/		/	7
Reinforcement	/	/								2
Example		/		/	/					3
Explanation										0
Mediation			/		/			/		3
Decoration										0
Diagnosis			/			/		/		3
Surrogation					/		/	/	/	4
TOTALS	2	2	3	2	4	2	2	3	2	22

Stimulation appears to be as evident in the practical teaching situation as in teachers talk. The diagnostic role is more evident, but illustrative, explanatory and decorative are less so. This may well be a mere reflection of the sort of classroom context in which the pictures were observed, because in most cases they were similar organised activities. On the assumption that these three roles would be more visible in the passive situation of wall displays, the observations of uses of pictures within displays (see Appendix page 125) was examined. Although the account of

functions for display is not recorded using the same typology there is sufficient information to show that all three roles, illustration, explanation and decoration are represented.

The principal test of the value of the typology was taken to be not the extent to which examples of its categories could be found in practice, but whether examples of uses which were not covered by it could be found. In short whether its categories were exhaustive. The most common sort of problematic comment, apart from the activity linked descriptions already mentioned, was what may be called developmentally linked descriptions of the 'helps language development' sort. These may be discounted on the same grounds as the activity linked comments. That is to say, whilst they are perfectly adequate ways of describing what pictures do in classrooms the dimension used is different from the present typology, which is concerned to categorise the manner in which pictures might contribute to development in a particular classroom activity. Beyond this only one or two comments offered problems. In each case they were ones which had affective connotations, for example, 'for creating atmosphere'. In this case it was accommodated partly under decoration and partly under mediation. This was also the solution for the use 'to enable children to feel at home and identify with the classroom'. Another comment which falls into a similar problematic category was 'pictures should be fun'. This was accommodated under the heading of stimulation, but some degree of unease with the solution remains. Taken all round it appears that the suggested typology accommodates almost all the uses which were either described by teachers or were observed in operation in classrooms. Yet there are a few which do not sit as comfortably within the typology as others. In the three cases found they had something of an affective connotation, and it may be that further development of the typology would need to look more carefully at the possibilities within this dimension. On this score it is worth noting that few examples of pictures

being used in an affective way were found either in teachers' descriptions or through observations. In general the typology proved to be a useful way of categorising what was seen in a way which was of value in recording the major areas of classroom picture use - display, books, activity, and permits an analysis where essential connections can be made with teaching intentions and techniques.

Summary and discussion

Teachers have three main ways of describing picture use: descriptions which focus upon (a) the classroom activity that pictures accompany, (b) the intrinsic qualities of pictures, and (c) the sort of learning or development that might be induced by them. The first of these was most common in general terms but differences were detectable between class and headteacher, where predictably class teachers showed a tendency to emphasise the activity focussed descriptions, whilst heads more often described picture use in a developmental way. Within the developmentally focussed descriptions hardly any made reference to affective or social areas of development, with the exception of a few which concerned themselves with aesthetic development, which appears to be correctly located within this division. The great majority referred to cognitive or academic development in one form or another with by far the greatest emphasis being placed upon language development.

An analysis of how teachers use the term 'language' showed that it focussed upon spoken vocabulary, but that it might be used on occasions in a much broader way: in a way which was indistinguishable from thought. Ways of using the term also suggest that all language is good provided that it is the child's language, but examination of the teaching episodes tends to show that selective reinforcement is used to encourage some sorts of language and

discourage others. It is probable that the explanation concerns difficulties in bringing together child-centred views on education and the more instructional aspects of practice which appear to make the teacher's role in differentially reinforcing according to societal norms more prominent.

Observed teaching episodes can be categorised as undirected where the children were largely left to interact with predetermined tasks or activities while the teacher occupied a general supervisory role, and directed, where the teacher occupied a more immediately instructional role. The commonest form of this second type was 'discussion' based upon pictures, where there was a common pedagogical format in several ways, including the type of picture, the way that children and teacher were positioned, and the sort of verbal interaction which took place. However, significant differences in technique were noted, especially with respect to the sort of questions asked by the teacher. In some cases the questions were such that it was possible for the child to find answers to them from the picture itself. In other cases, whilst questions were in the same subject area as the picture, they required information not contained in it. Taken together with each teacher's stated intentions to use the picture to generate language there appears to be a case for claiming that there are distinctive questioning skills associated with this particular activity, which probably has the implication that careful preparation of questions is required. Perhaps even more so when the teacher wishes to combine an open style of questioning with drawing information from the picture. It does not appear to be the sort of thing which can easily be done by looking at the picture for a few moments before the activity. In the case which seemed most effective (Ceasham) considerable preparation had been undertaken in advance.

There was some evidence that children actually look at the picture being used for this sort of activity a good deal less than the teachers believe and expect. Similarly young children do not always take from the pictures the information which the teachers intend them to. In the most extreme case noted (Ceasham), the lesson concerned and the materials seemed to be carefully constructed to ensure that the children would refer to the colours in the picture when colouring the work cards. None did, but instead seemed to draw upon their previous knowledge and beliefs, or depended upon copying the solutions of others. This may be an indication that the sort of authority that adults vest in certain kinds of picture is not necessarily shared by young children. That is to say the colours in the pictures are a mere opinion carrying no more weight than the child's own, or those of a classmate. This explanation does, however, seem to run counter to the largely accepted belief that young children place a great deal of trust in adult information, especially that of their teachers. In this case the picture was being presented by their teacher as the truth. The possibility that inability to colour match in a task of this sort, does not seem to be a plausible explanation for children of five plus.

The question of whether teachers assigned a special role to pictures for pupils with learning difficulties produced contrasting evidence. On the one hand teachers made no references to such children in the context of general interviews about the place of pictures in the infant school. On the other, seven out of nine of the observed teaching sessions did concern themselves with such children. Either they comprised the entire group or were members of the group who gained special attention in the evaluation. The correspondence between the 'picture discussion' format and the selection of groups who were experiencing difficulties might be an indication that this technique is regarded as especially valuable to such pupils. All the sessions were conducted in a way which clearly suggested that the children

concerned would experience no difficulty in extracting the required information from the picture. This was evident not only from the activities themselves, but in what teachers had to say about their intentions and evaluations. It was accepted that children may or may not actually attend to the picture, but that aside, pictures postulated no other requirement for the children's understanding.

An attempt to categorise the classroom functions of pictures using the earlier postulated typology was made. An analysis of the interviews and observed activities, in terms of the typology, revealed some difference in emphasis between how headteachers and teachers report the uses for pictures, and some difference in emphasis between the uses which are verbally reported and those observed. None of these are surprising however. A measure of the ability of the typology to accurately categorise normal classroom uses took the form of examining the extent to which instances in practice could be found for all its categories, and the extent to which it had categories to accommodate all the uses seen. In short that it was applicable and exhaustive. No problems were found with regard to its applicability, but a few instances of use were found which suggest that it is not exhaustive. The instances in question were all concerned with the affective dimension, and whilst it was possible to accommodate them within the existing categories, this may have failed to distinguish essential characteristics of them which could be important if the typology is to be developed as a set of categories capable of capturing the flavour of teachers' intentions and activities in the classroom. In the meantime the typology does seem to be sufficiently sensitive to be useable at the level of the present analysis.

CHAPTER NINE

DISPLAY

Both the exploratory groups and the survey confirm that wall displays are seen as an important use of pictures in the infant classroom. Indeed, they may be viewed as a major division of picture use, with pictures illustrating books as a second, and the remaining, perhaps more active ways of using pictures in the classroom, being the third. At least on the face of it, display may be characterised as a passive use of pictures which depends to a large extent upon pupils paying some degree of attention with minimal direction from the teacher. For this reason they are particularly interesting from the point of view of pictorial literacy which is essentially concerned with what the viewer can take from pictures. In practice, this assumption of passivity, which derives principally from the way in which display is commonly defined, is open to challenge. Certainly the extent to which displays are employed actively in teaching is considered to be something which can vary between displays and classrooms. It will vary in relation to the beliefs which different teachers hold about the purpose of display. The survey indicates that not only is there wide variation in this respect, but also that such beliefs are not free from difficulties in making practice square with ideology. Moreover, there appear to be some contradictions, or at least inconsistencies, in what teachers have to say about the value and uses of display.

School policy and the context of display

A good deal of what headteachers had to say about school policy (see Appendix page 110) was directly concerned with display, although less than half (four out of ten) claimed to have an official school policy for it.

Individual items of policy which received single mention were that displays should be uniformly labelled, that the emphasis of displays should be placed upon language, that teachers should construct 'stimulation' displays before a large project begins, and that displays should in general result in classwork, rather than merely be the result of it. Two schools were particularly interesting because of the precision with which display policy was articulated. The first of these (Festingly) detailed four points: that all pupils' work was displayed (interestingly this did not appear to be either known by the teachers, or visible in the reality of displays at Festingly), that it should not be left up too long (no more than a half term); that much of it should be instructional in the sense that it contained clear explanations and information; and that it should be grouped in topics. In spite of the clarity of these policies Festingly was not visibly different from other schools in respect to them.

Dechester also had a clearly articulated policy on display, it included that teachers would prepare for each half term by mounting an elaborate 'stimulation' display to launch a new topic, these would be built upon with pupils' work as the term advanced. Dechester was also the school which required uniformity of display labelling throughout the school. Unlike Festingly, the effect of these policies was clearly observable. Each and every classroom had a prominently placed, carefully produced, teacher-made display (for example see plate 1) which had indeed been enlarged and developed using the pupils' work. Only standardised lettering was used in any display. The headteacher confided that one of the ways in which the efficacy of the policy was ensured was to vet applicants for posts to ensure that they would actively subscribe to it. Their agreement to do so or not was a significant selection criterion.

Responsibility for display throughout the school varied considerably, but all the headteachers agreed that the co-ordination of displays was of crucial importance. Four schools had a Scale II post with responsibility for display, nine did not. Within that nine, five of the headteachers took responsibility for displays throughout the school themselves, the remaining four reported that it was a 'team' responsibility. In most cases this meant identified groups of teachers being responsible for identified areas of the public spaces in the school.

Headteachers were invited to say in what ways they influenced display practice in the school other than through official policy. Their replies included that they generally encourage it (6 headteachers said this), that children's pictures should take preference over other pictures (7), that they actively encouraged team work approaches to display among teachers (4), that they encouraged teachers to move 'successful' class displays into public areas (8), that opportunities should be created for children from different classes to see each others' displays (2), and that teachers were influenced not to do displays calculated only to please the headteacher (1).

Some idea of what the headteacher thought to be an appropriate mode of influence was gained by asking each what they would do if a new teacher joined the staff who did not believe in display, and who wished to replace all the displays in their classroom with attractive wallpaper, or merely leave the walls blank, given that they had a rational and plausible educational argument for doing so: for example, that busy walls distracted some children from the task in hand. Three heads replied that they would not permit it at all, a further five said that they would heavily discourage it, but this might fall short of actually ordering the teacher to put up displays, and the remaining two felt that they might initially permit it, but if the teacher did not grow out of the idea they would eventually

intervene. It is notable that all the headteachers were dismayed at the very prospect.

Organisation of display

Both headteachers and others made comments about the organisation of displays (see Appendix pages 104 and 108). The single most frequent comment from headteachers was that class displays commonly had a thematic link with morning assemblies, but none of the teachers volunteered this information. Several of the headteachers' comments concerned the way in which displays in public spaces were organised. These included that displays in public spaces originated in classrooms (7), with several mentioning specific locations thought to be important such as the main hall, the library, and the corridors. Two headteachers mentioned that public spaces were freely available to teachers, a further four mentioned that public areas were designated to individual teachers or pairs of teachers. Yet two further heads commented that each class teacher took turns in looking after public spaces, and another said that in their school teachers got together to decide who should deal with particular spaces. Three headteachers mentioned that each public area had a theme for each half term, and on the resource front one mentioned that they had a special trolley to help with displays in public spaces. None of the teachers interviewed made any comments on their role in organising displays in public areas.

Teachers' comments on display organisation were much more focussed on the classroom itself. Three ventured that they took sole charge of arranging the displays and this was to some extent supported by one headteacher's comment that it was necessary for teachers to select work (rather than children doing so). One teacher made the specific point that her personal taste in terms of picture subject dictated what went into displays.

However, one teacher did say that the pupils played a large part in choosing things for display and another got the children to help her with the arrangement. It is not surprising that what mainly comes out of this is that heads think of public spaces when addressing issues of display organisation, and teachers think of classrooms, even in schools where the official policy is that teachers are also responsible for designated public spaces.

The value of display

A considerable number of both heads and teachers volunteered some sort of generalised support for display including that they are essential (3), important (3), necessary in making the classroom colourful and welcoming (3) with one headteacher venturing that blank walls have a depressing effect on both pupils and teachers. None of them failed to praise the value of display in the infant school, whether they did so in general or specific terms.

Headteachers in particular seemed prepared to make statements about what constituted a good display. Among the articulated criteria were that careful labelling is important (3), that they should contain much three dimensional work (2), that they should be relevant both to children's experience and teachers' interests (2) that it should be based around themes and arise from classwork (2). Eight respondents in all commented that as much as possible, or even all, children's work should be included. However, two headteachers did note that some of the teachers' own work was of value too. Two classteachers gave it as their opinion that a variety of different types of display was important, but no headteacher took up this theme.

Taken all together these comments seem to suggest almost unanimous agreement about three main issues: that display is of extreme value in the infant school, that children's work should be either the main or only content, and that criteria for good, display can be enumerated.

The function of display

A very wide range of different functions were suggested, (See pages 104 and 108 in the appendix). Certain of these tend to dominate. The most prominent being the initiation and follow up of topics and activities (10). Both heads and teachers seem to agree on this, otherwise they tend to give rather different accounts of the functions of displays. Heads more frequently mention rewarding children (interestingly two of them have special display boards in their offices for this express purpose), enriching experience, and decoration, whereas classteachers make most mention of preparing for and following up visits.

On this last point one teacher (Gill from Midley) held the opinion that with reception children the emphasis needed to be placed almost entirely upon preparation with such young children since they could not retain an interest sufficiently after the event to make follow up useful. In all, three respondents mentioned the role of displays in developing aesthetic awareness, or taste, and five mentioned a direct instructional role in one form or another. Two headteachers remarked that they believed that a degree of unconscious learning is gained from displays 'washing over' pupils.

In summary, the large majority of specific functions mentioned were predominantly directly pedagogical or cognitive, but some mention was made of the development of aesthetic awareness and decoration as well as broader functions such as enriching experience. None actually specified particular

uses directed to social or emotional development as separate from aesthetics. The most marked difference between the responses from heads and those of class teachers was that heads tended to reply in a predominantly developmental mode, whereas class teachers mainly identified uses in terms of classroom activities.

Finally views on the question of the power of display to impinge on children received few mentions. However, there is the comment of two headteachers already referred to that there is a degree of unconscious learning going on. In addition two others indicated that they felt it was necessary to direct children's attention to displays before they became effective, but another headteacher disagreed by claiming that children talk together about displays when the teacher is not present. There is perhaps only sufficient here to show that there is no clear consensus on the question.

Description of display

Partly in order to relate what was said at interviews and partly to see the fit between what had been claimed in the survey replies and the reality of the classroom, it was necessary to observe and describe as many displays as possible during the school examples. This necessitated the development of an instrument for doing so, since a survey of the literature revealed that none exists to fit the bill. Such an instrument needed to be valid and reliable in the following respects. First it must be capable of describing the essential characteristics of a display such that it allows both close comparison with other displays, and as far as possible permits an analysis which connects with teachers' stated beliefs and practice. Second, it should be as objective as possible. However, this is not to say that it must deal only in easily quantifiable or simply measurable features of the display. These must play a part, but if the first criterion (above) is to

be achieved the instrument must also deal in more complex, but nonetheless observable qualities of the display too. There is ample evidence arising from such sources as the agreement trials for art examinations (especially C.S.E. which employs display) to suggest that agreement on such generalised qualities as whether a display is fragmented or coherent in composition is more straightforward and less subjective than it appears on the face of it, or at least capable of ready independent agreement between observers who are clear about the way in which the quality in question is being delimited. Third, it must be capable of easy and rapid application in a range of different locations such as classrooms (with or without work in progress), corridors, assembly halls, and other public spaces, and whether or not the observer is accompanied by a guide.

Existing work in the area which might have offered a framework for the design of such an instrument failed to do so. In most cases (Wittich and Schuller, 1962; Williams, 1963; Cable, 1965; Gordon, 1986) this was because the guidelines proposed were generalised and largely unexplained prescriptions. In others (Brown et al, 1973) it was because the proposed guidelines were founded upon assumptions which the present study treats as problematical. That is to say Brown et al take it that what is important and valuable about school displays is more or less the same as other areas of display such as window dressing or exhibitions of commercial products. They identify as the important features of wall displays the following items: formal and informal balance, the type of configuration patterns, emphasis, contrast in terms of tonal distribution, and harmony. Whilst one would not wish to deny the value of these features in assessing the compositional characteristics of any visual array, or even that they might find a place on a checklist for school displays, they could not form a basis for the observations in the present study, because they are solely concerned with received, and narrow artistic values. What was being sought was much

more concerned with a broad view of display located within the whole teaching context and related to the stated beliefs and values of the teachers.

In this way it became clear that it was necessary to begin from first principles, with any information from the literature playing a relatively minor role. The logical place to look for such guiding principles was in the statements of the teachers who had participated in the study.

Consequently, working from the records of the exploratory group and findings of the survey an initial checklist was drawn up which reflected the comments of the teachers. For example, many teachers had given it as their opinion that displays should be made up of mainly children's work, so an item which quantified the amount of children's work was included. Similarly teachers had been clear about the features of commercial pictures which they preferred so an item directed to stylistic features of such pictures was included to establish the extent to which these preferences found expression in actual displays.

In this way an initial checklist was constructed which had five major headings: media, presentation, purpose, content and general. The heading 'media' subsumed features of style, mode and materials such as the proportion of children's and adult work, the amount of figurative and abstract work, picture size and age, the colour balance, the balance between verbal and pictorial materials, the occurrence of three dimensional items and the variety and type of media employed. The heading 'presentation' covered all those features concerned with the arrangement and composition of the display as a whole, including the grouping, the total amount of wall cover and distribution of different elements within it, the amount and kind of monitoring employed, the amount and kind of labelling with the emphasis upon style of lettering used, the characteristics of sub-displays and the manner

of linking different parts of the display. This section included all those compositional features proposed by Brown et al (1973). The heading 'purpose' included the extent to which the purpose of individual displays was visible, the different sorts of purpose for which individual displays were intended, the coincidence between the stated purposes for displays and the extent to which this was visible in them, and the extent and sorts of relationship which the display bore to the day to day work of the classroom. The heading 'content' was principally concerned with the subjects contained in the display. In this case the word 'subject' is not being used in the narrow 'school subject' sense, but refers to whatever is being represented. 'Content', therefore, covered the extent to which subjects were predominantly everyday or exotic for both children's work and adult work, whether they were based around themes, the sorts of labelling employed with the emphasis upon the message they contained, and the extent to which individual items of display had been co-operatively or individually produced in terms of their content. The final heading 'general' was partly a catch-all category and partly directed at those aspects which were essentially concerned with impressions of the display taken as a whole. In addition this heading covered the differential participation of pupils and teacher.

Modifications to the observation schedule came mainly from two sources: refinements which originated in the observations themselves, and the parallel development of an analytical framework based upon the 'systemic networks' idea of Bliss et al (1983).

The first of these largely concerned the identification of distinctive types of display which tended to recur, and had sufficiently characteristic features to suggest that separate classification of them would be valuable. The first of these to recommend itself was the 'matrix'. Its identity

derived mainly from the characteristic arrangement of similar items into a block or tabular form. However, it had implications for content too in that the items making up a matrix had a single focus or subject. For this reason two separate types of matrix were identified. The first of these was a block of children's work in which each was virtually identical in all senses except craft competence. The overall impression of such arrays was one of repetition, almost like a wallpaper pattern. The degree of identity between the contained items was such that each child must have worked through the same sequence, using the same materials and techniques with the same end product in view. In recognition of this the term 'multiple' was coined for them. Plate (2) illustrates a typical example of a multiple matrix.

The second type of matrix to be identified had most of the properties of the 'multiple' except that the individual pieces of work were less like items from a production line. In this case individual items were of the same subject and largely used the same media, and probably represented the end product of a particular lesson or lessons directed to drawing or painting a particular model, either from life or a picture. Although the degree of individuality is markedly greater than in the 'multiple' there remains a striking amount of similarity. This type was named the 'example matrix' in that each may be seen as an example of the artistic efforts of the particular children involved. Plate (3) illustrates this category.

A second category of display to be identified was termed the 'collection'. The features which characterise a 'collection' are threefold. First, a collection is based around a single theme ranging from a particular animal, say the guinea pig, to something as broad as travel, or communication. Second, the items and media from which it is made are diverse, usually including both pupils' and commercial work, and as often as not including objects too. Third, there is no dominating form of organisation or

composition beyond simple proximity of the items. For example, it would not be a collection, by the present definition, if the items were visibly ordered in terms of a time sequence, or integrated into some sort of rational flow diagram, or located as separate features of a large pictorial frieze. Some collections have a tabular form like the matrix, but the diversity of the items themselves ensures a strikingly different appearance; the fundamental repetitiveness of the matrix is absent. One subdivision of the collection was worth noting separately, for whilst the idea of diverse items grouped around a theme is open to almost infinite variation, one of these occurred sufficiently frequently to form a category. The term given to it was the 'inventory collection' because it was characterised by a 'one off' quality. Such a display might include one piece of prose writing, one poem, one line drawing, one painting or collage, one object and so on. In other words the term 'inventory' was given when the diversity of items was unusually deliberate, giving the impression that the display should rightly contain only things which were different from each other. An example is given in Plate (4).

A further general category was found in what was termed the 'tableau'. A 'tableau' is essentially large and it has a strong compositional structure which subsumes and dominates the individual elements. Three types of 'tableaux' were separately identified. The first, and by far the most common, is the 'pictorial tableau', in which separate elements are combined within a single pictorial composition. Collage of one sort or another is the common medium, and a frequent example is the wall frieze. An example of a typical pictorial tableau is given in Plate (5). A second type is the 'diagrammatic tableau' in which the overall composition is that of a diagram or flow chart. The most common of these is the radiating diagram in which a central feature is connected to a surrounding array of items which are thematically or logically related to it, but other types of diagrammatic

organisation are met with occasionally. Plate (6) and (7) show examples. The third type of 'tableau' is termed the 'window display'. It is characterised, in common with the other two forms of tableaux, by having a strong compositional form, but in this case it is one which springs from the application of conventional display principles like those enumerated by Brown et al (1973), and consequently whilst forming a strong entity is neither pictorial nor diagrammatic. Its unity is contained by the use of proportional arrangement, appropriately located linking accessories, colour, and a range of devices which may be seen at their most polished in commercial window displays. In artistic terms this is a sophisticated form of arrangement which depends upon visual harmony.

It may be sometimes difficult in practice to decide the precise location of the dividing line between some examples of 'window display tableaux' and polished versions of 'inventory collections'. In the present observations the decision depended upon the extent to which the array was judged to be a single entity made up of individual elements, or a group of individual elements appropriately placed. It is a subtle and impressionistic distinction and for that reason may be seen as a weakness in the classification. An example of a 'window display tableau' is given in Plate (8) which may be contrasted with the example of 'inventory collection' given in Plate (4).

An important characteristic of tableaux is that by the very nature of the overall composition the teacher must be the designer. The use of perspective in 'pictorial tableaux', the use of logical relationships in 'diagrammatic tableaux', and the use of principles of harmonious composition in 'window display tableaux' place the designer's role beyond the capacities of infant children. This led the observer into attempting to categorise the possible childrens' contribution to the typical tableau. It is possible to

identify the ends of a normally evident scale. On the one hand is the contribution which comprises a complete piece of art work or writing, that has made all those creative and craft demands which would normally qualify it for separate display. This has been termed 'item' contribution. An example of 'item' contribution might be seen when the teacher has set the child to paint a house to go into the tableau. They may be given some minimal guidelines on type and size, but the children are then left to solve all the remaining artistic problems and eventually produce their painting of a house which is subsequently positioned by the teacher to become a perspectively integrated part of the complete tableau. Sometimes the process may even be less deliberate than this with the idea of the tableau arising after the event. On the other hand is the sort of contribution which would not stand alone. This sort of contribution has been termed 'component'. Typical 'component' contributions would include pupils' hand prints, which when cut out, became the leaves of a tree, scrunpled bits of coloured tissue paper destined to be arranged into flowers, or even individual paper shapes which pupils paint a single colour, which may become the dragon-scales, roof-tiles, or whatever the teacher requires in order to produce the finished tableau. At this extreme the pupil's involvement with the whole conception may be argued to be minimal. Photographs showing 'item' and 'component' involvement are available in Plates (9) and (10) respectively. It is felt that this distinction between types of pupil contribution is worth drawing even at the risk of oversimplification since it has such a significant bearing upon one of the most firmly held opinions of teachers about display: that they should be mainly children's work. It points up that the term 'children's work' is open to a good deal of examination in its own right, and need not on its own imply a Plowden type of child centredness.



Plate 1 : A 'stimulation' display.



Plate 2 : Example of a 'multiple matrix'.



Plate 3 : Example of an 'example matrix'.



Plate 4 : Example of an 'inventory collection'.



Plate 5 : Example of a 'pictorial tableau'.



Plate 6 : Example of a 'diagrammatic tableau'.

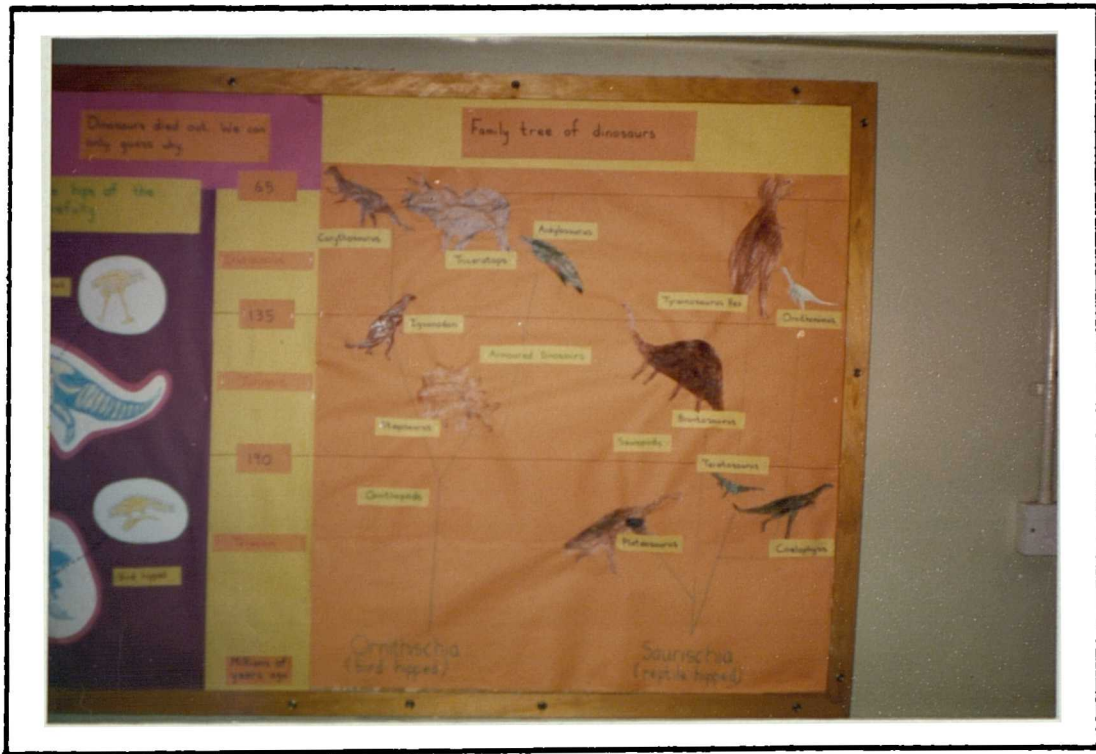


Plate 7 : Example of a 'diagrammatic tableau'.



Plate 8 : Example of a 'window display tableau'.



Plate 9 : Example showing 'item involvement'.



Plate 10 : Example showing 'component involvement'.



Plate 11 : Example of a circular arrangement.



Plate 12 : Example of a parts/whole arrangement.



Plate 13 : Example of unfamiliar view.



Plate 14 : Example of complex pictorial convention.

All the above categories are justified on two counts. First, that they are distinguishable features of displays in their own right, and in most cases offer the observer little difficulty. Second, that they are each revealing of aspects of pedagogy which in turn help to describe the day to day interactions of the classroom or school concerned, and may even be used to connect with questions of educational ideology.

Other modifications to the observation schedule which arose from practical application of it were mainly concerned with what is or is not visible and distinguishable in practice. For example, it was originally intended that an observation of the general impression of the whole display could touch on a very wide range of features. It was found that, in practice, this resolved itself to (a) a statement about whether it was exciting, dull, or neither, and a statement about the 'clarity' (orderliness) in terms of whether it was confused or clear.

The second main source of modification to the observation schedule came from the development of a systemic network related to display. The idea of the systemic network for the analysis of qualitative data in educational research comes from Bliss et al (1983). They have described a procedure which owes something to techniques of semantic analysis which are well established in linguistics. The technique is basically an extension of the way in which we make sense of any data. Bliss et al describe it in the following way:

To categorise is to attach a label to things; in effect to place them in boxes. A network can be seen as a map of the set of boxes one has chosen to use, which shows how they relate to one another. The set of relationships can be arbitrarily complex (p. 8).

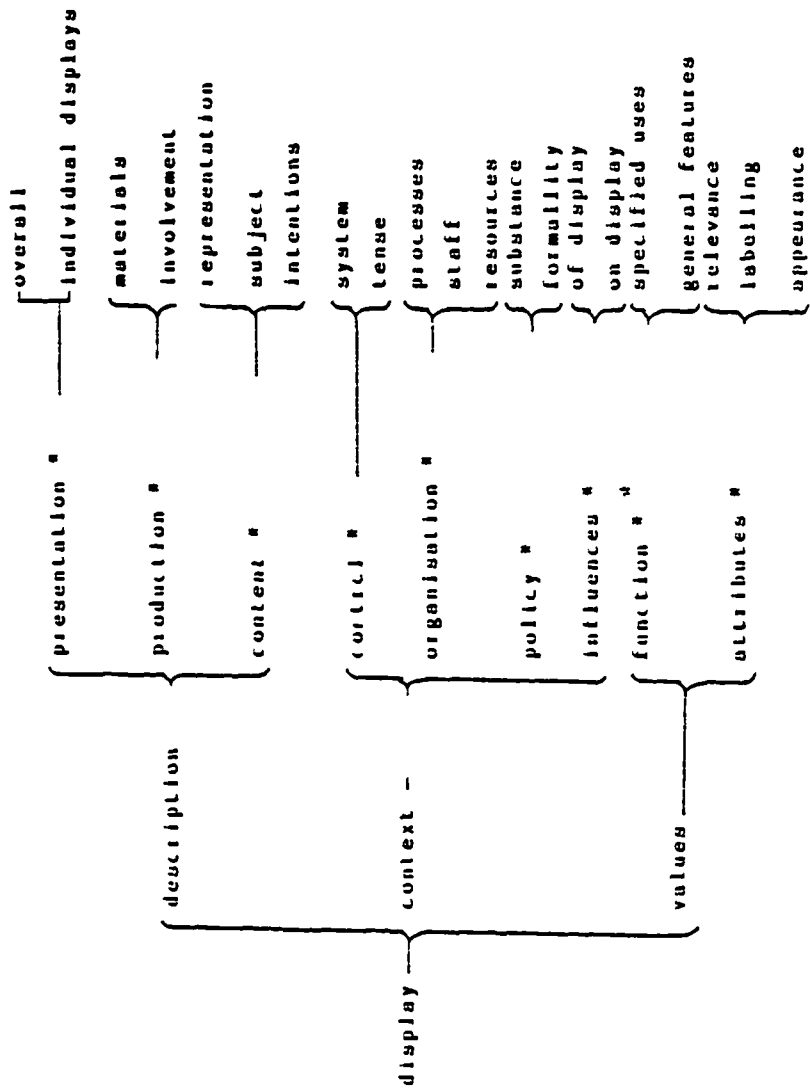
They acknowledge that the idea of systemic networks will not be appropriate for all types of ethnographic data. They postulate a scale of types of

ethnographic data with at one extreme those cases, say the history of a school, where all the data are unique, and at the other extreme data of the sort which, because of their generality, falls naturally into unproblematic categories. The network approach is appropriate for neither of these, but the broad middle range of ethnographic data which is neither totally unique nor unproblematically general is where the idea might be valuable. The present study does fall into this band; moreover the categories concerned were interesting because whilst it would have been possible to treat them as unproblematic by taking them at commonsense face value, there was every reason to suppose that this would have been misleading. The evidence from the exploratory groups and survey suggested that it was necessary to re-examine, or at least clarify, the way in which display terminology was used by the teachers concerned, in order to better understand the relationship between classroom display and other aspects of infant classrooms. What was revealed up to this point by the study was that the place of display within infant education was more complex than was at first thought; that it appeared in practice to contain contradictions, and that it promised be particularly revealing of the way in which abstract educational ideas found practical expression. For these reasons the development of a systemic network which attempted to set out some of the logical relationships between ideas about display used by the study teachers seemed a worthwhile endeavour.

The basic idea of the network is that the process of categorisation consists of drawing distinctions and naming them, and recognising that distinctions may need to be drawn along several independent dimensions. It also recognises that any distinction may need to be further divided into subsidiary divisions. Within such a network the elements, as categorical names, become self defining in that they are located in relation to the superordinate categories of which they are a part as well as being described

Overall network for display

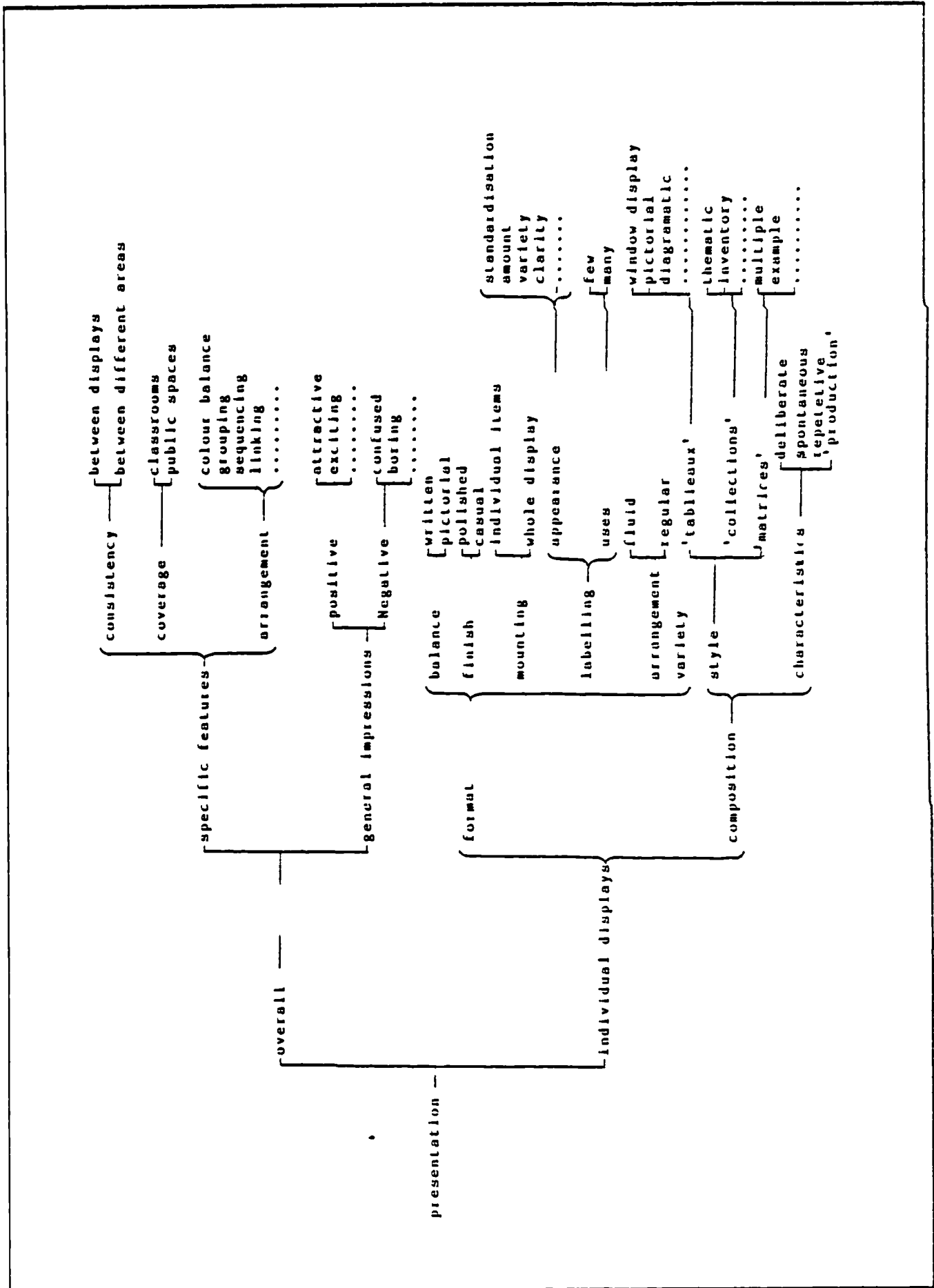
NETWORK ANALYSING OBSERVATIONS AND TEACHER'S COMMENTS ON DISPLAY



*Indicates that a separate sheet showing further levels of delicacy is available at this point in the network.

TABLE 16

Expansion of display network from PRESENTATION



Expansion of display network from PRODUCTION

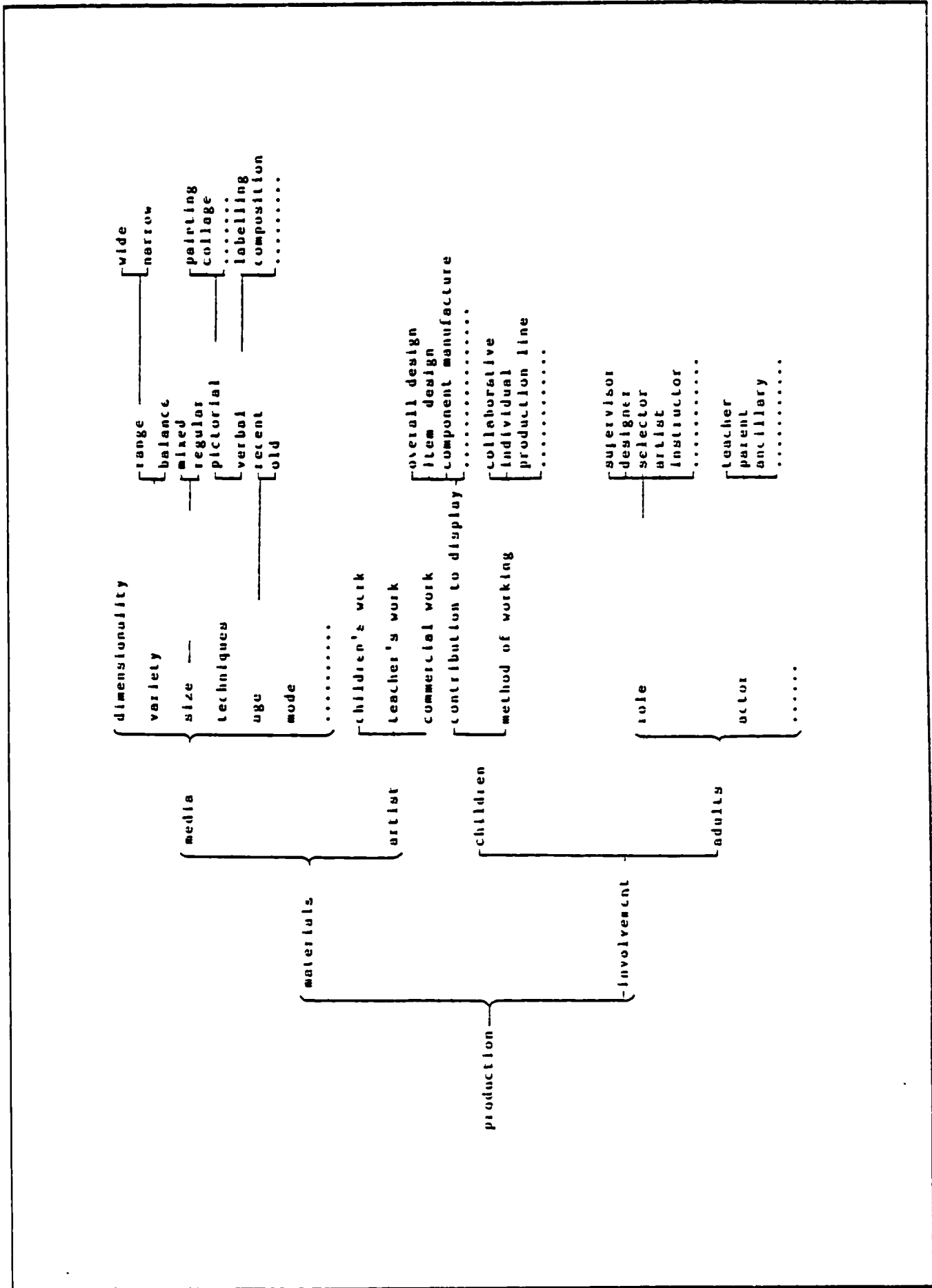


TABLE 18

Expansion of display network from CONTENT

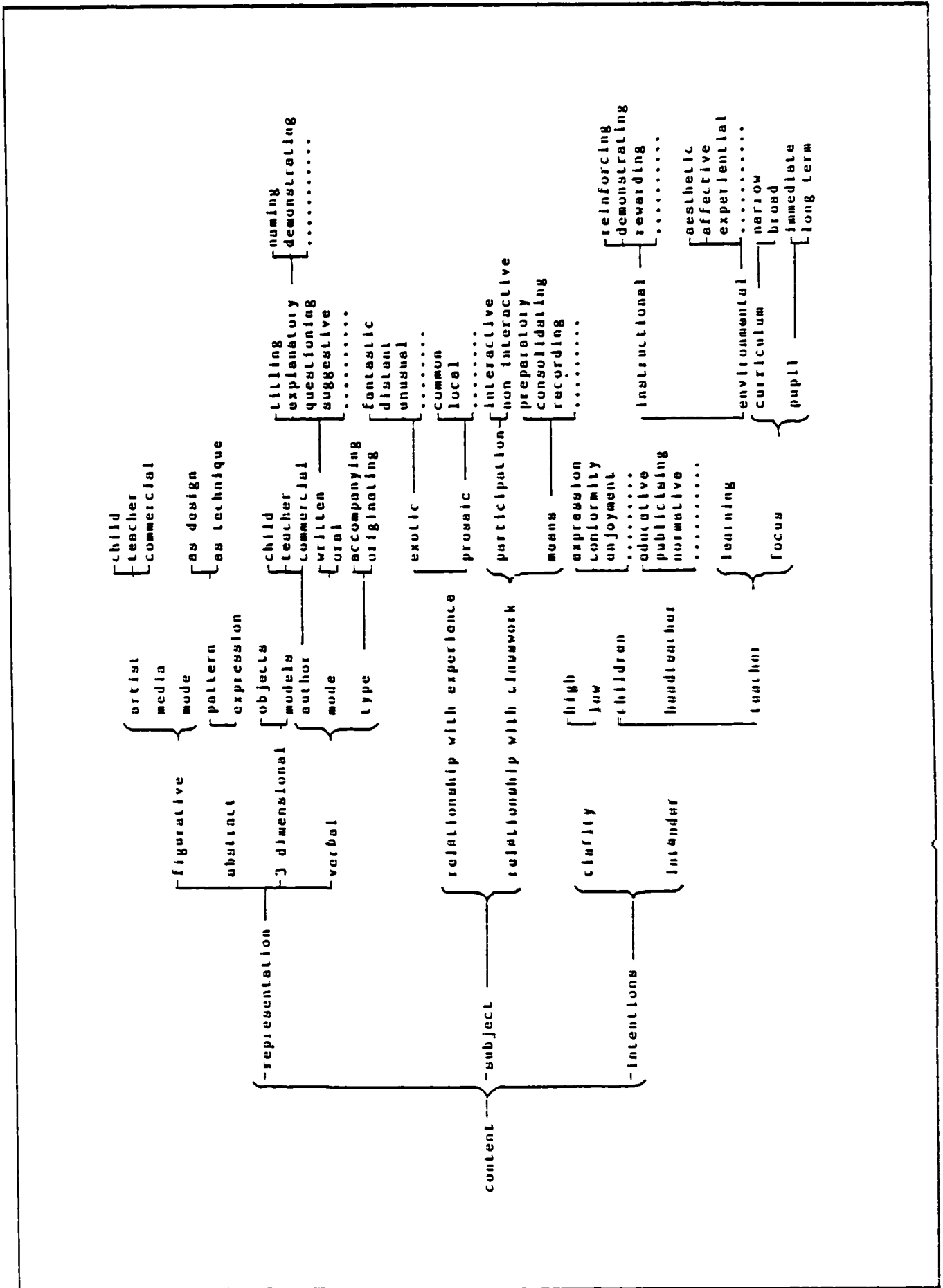


TABLE 19

Expansion of display network from CONTROL

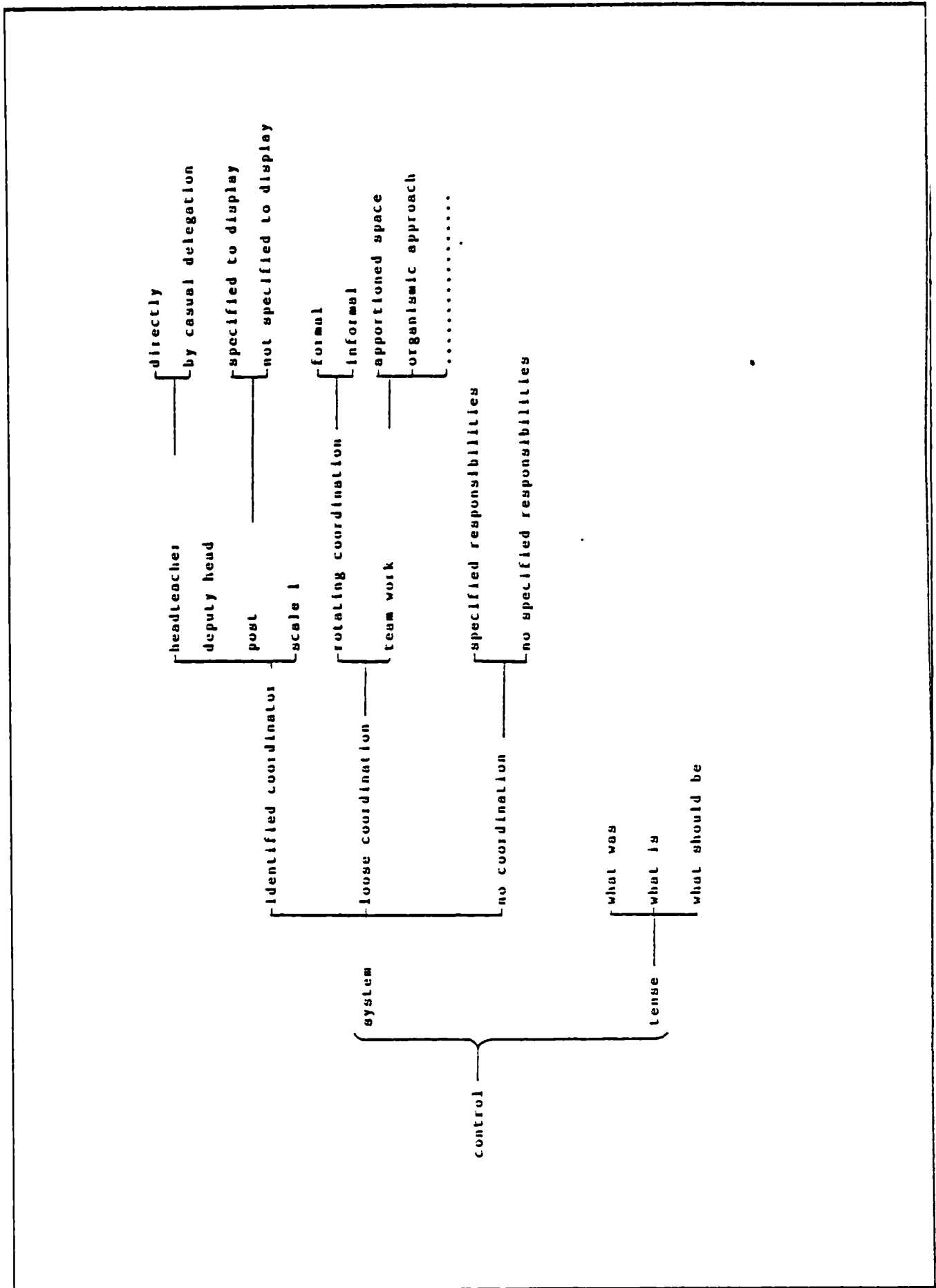


TABLE 20

Expansion of display network from ORGANISATION

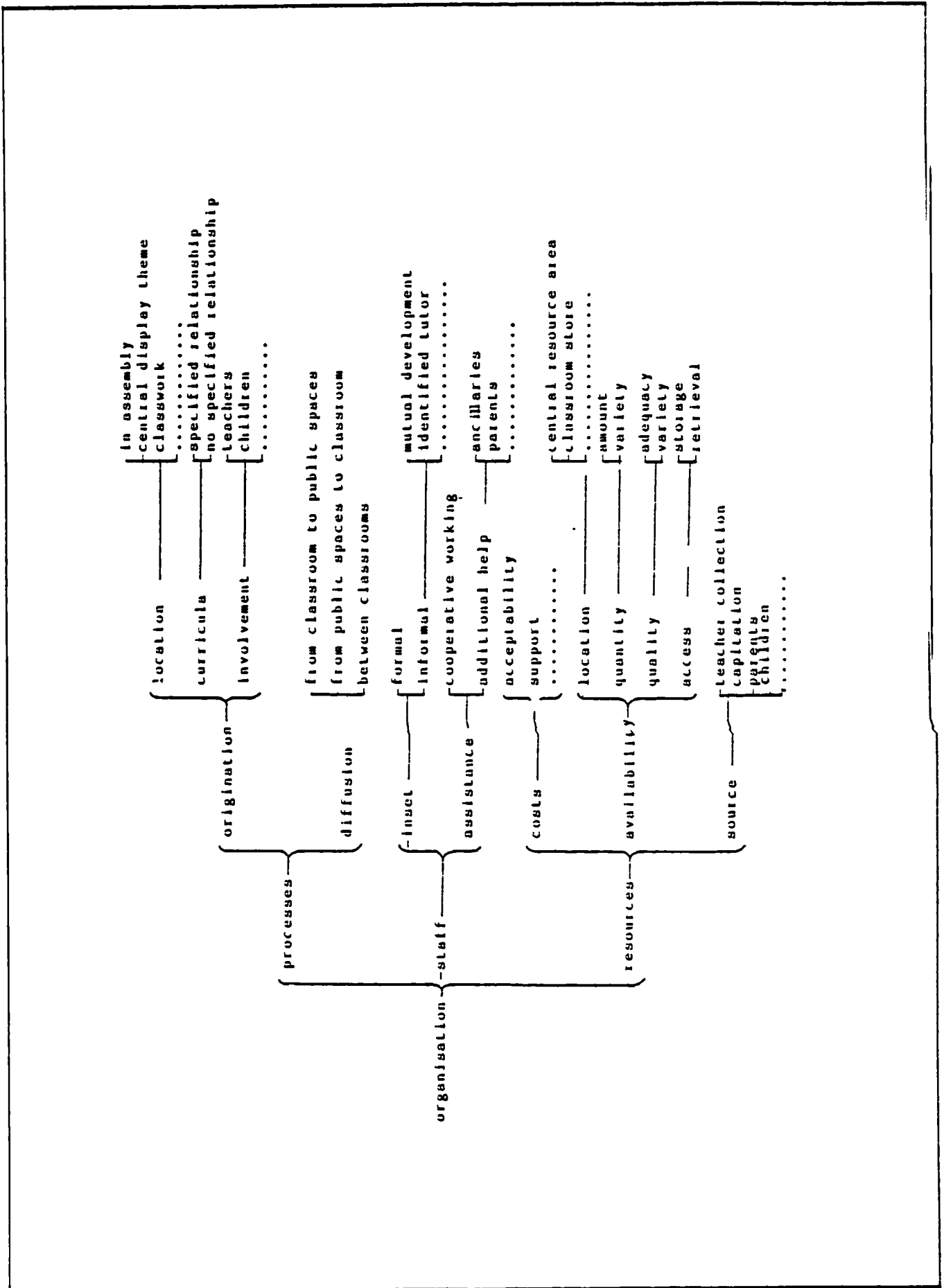


TABLE 21

Expansion of display network from POLICY

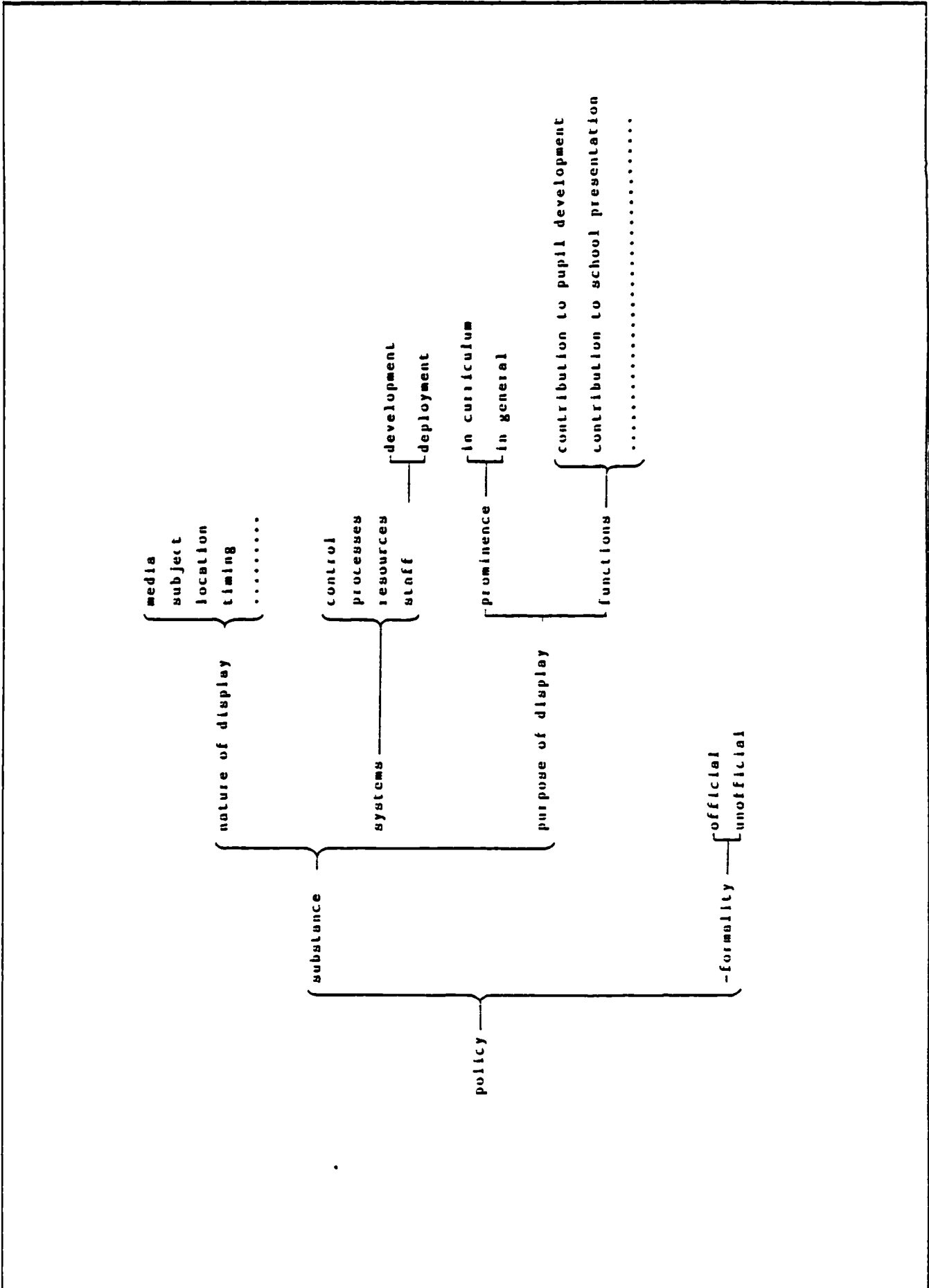


TABLE 22

Expansion of display network from INFLUENCES

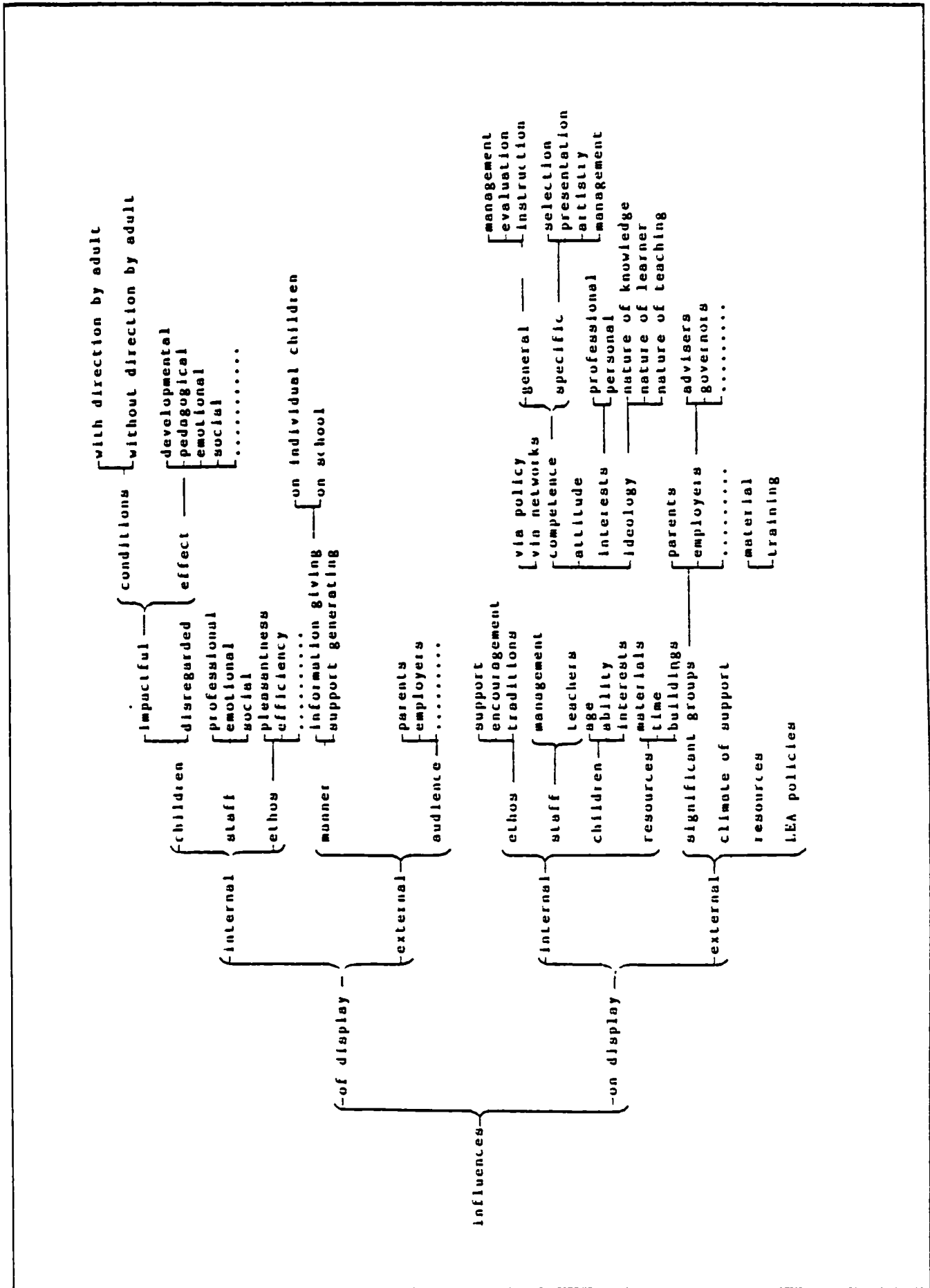


TABLE 23

Expansion of display network from FUNCTION

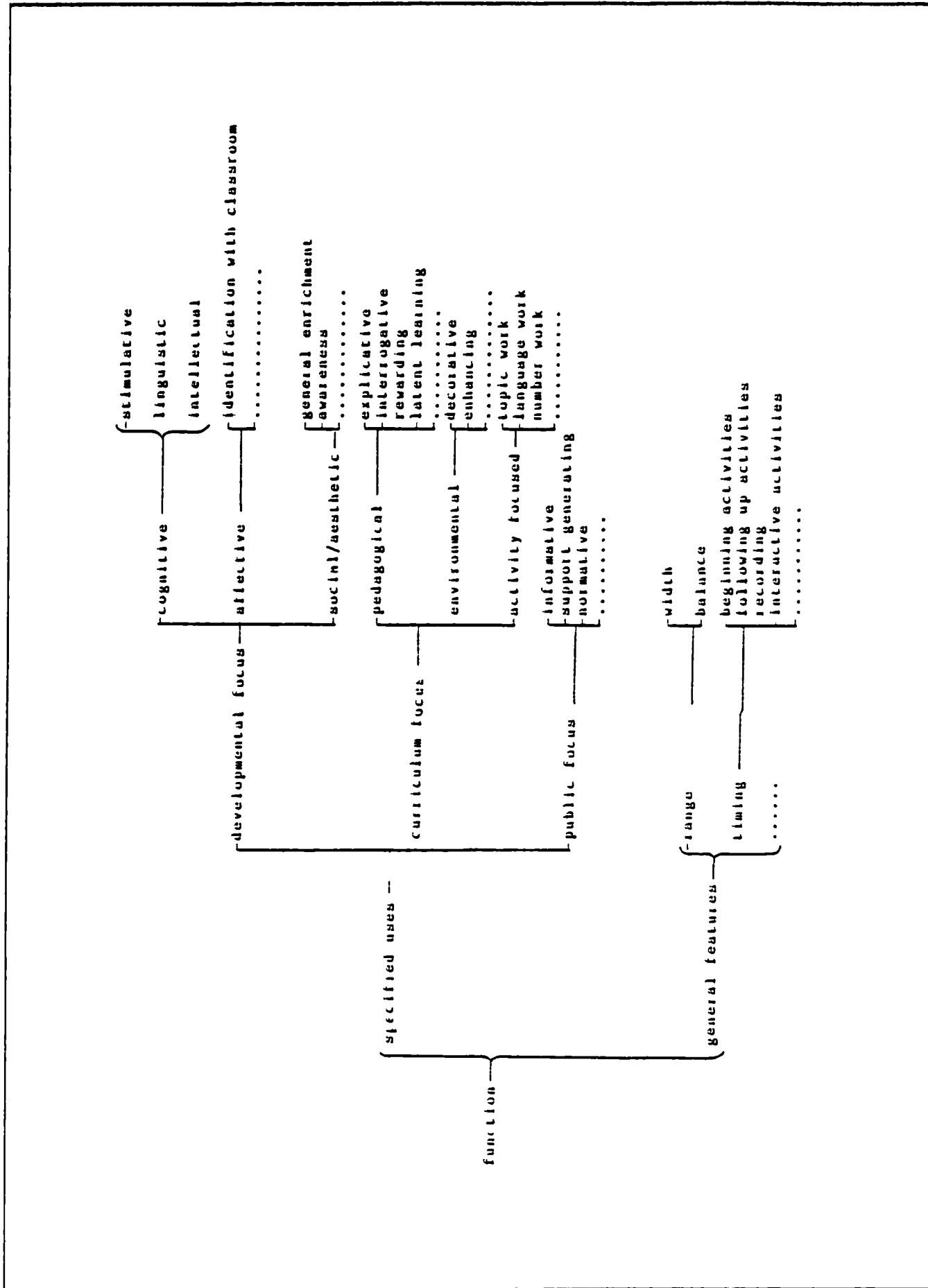
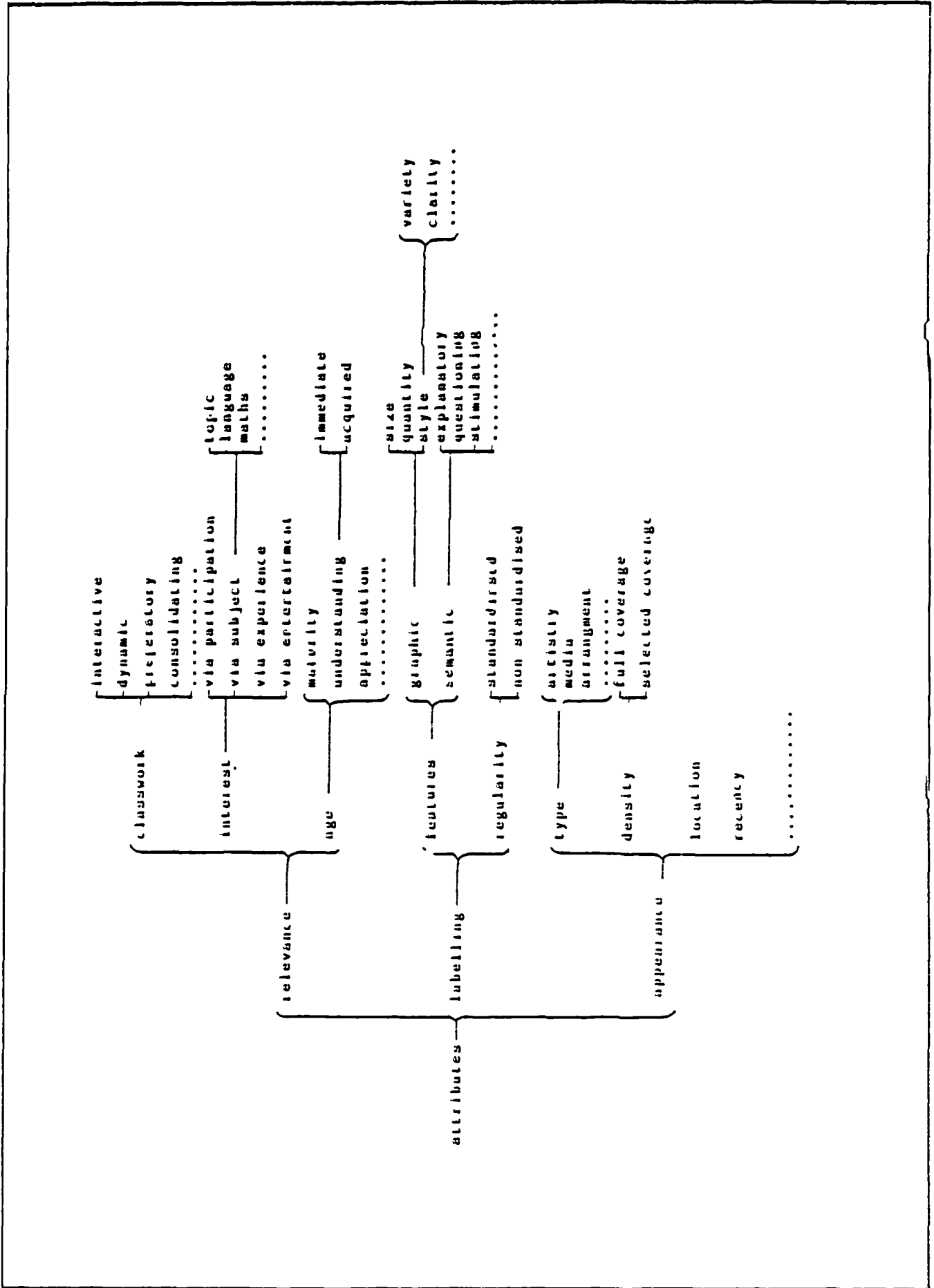


TABLE 24

Expansion of display network from ATTRIBUTES



in terms of the subordinate categories which compose them. Two main types of notation are used to indicate the relationship between levels of category. The first of these, Bliss et al (1983) term a 'bar'; it consists of a vertical line with the main category to the left and the subcategories to the right. It expresses the simple idea of a single large category divided along some important dimension into smaller, mutually exclusive categories. The terms in such a finite system are shorthand names for categories which whilst having other, perhaps unstated external criteria, define each other, within the model, by exclusion. For example, in Table 15 INVOLVEMENT (a subdivision of PRODUCTION) is thus broken down into CHILDREN and ADULTS. For this purpose the division which has been selected is AGE but because we are dealing with infant schools it seems safe to make the simple binary distinction. It suggests therefore that those involved with classroom display in the infant school are either children or adults, that there are no instances of persons who are both at the same time, and that in this dimension there is no other division which can be made. A slight variation on this is used where the sub-categories shown are not exhaustive. For example, to the right centre side of Table 16, we see PICTORIAL TECHNIQUES subdivided into PAINTING and COLLAGE. The dotted line is an indication that other categories at the same level could be included, a way of symbolising 'etc.', which is either a statement that one knows that the sub-divisions are not complete or one is allowing for the possibility that they may not be.

The second main notation is the bracket which is used to denote co-selection. It indicates that selections must be made in all the systems which follow it. On reaching a bracket one pursues all the systems which develop from it. The sub-categories following a bracket are, therefore, not mutually exclusive, but are distinct and independent aspects of the main category to the left. Bliss et al (1983) express it in the following way:

Terms or systems following a bracket are analogous to the different dimensions in a contingency table (p. 16).

This may be exemplified from Table 17 in that the main category PRODUCTION (in the centre) brackets MATERIALS and INVOLVEMENT, meaning that both of these must be considered in order to arrive at an explanation of the way in which the term PRODUCTION is being used in the network. Other types of notation are available in the network system, but for the purpose of the present analysis it was felt unnecessary to employ them.

It may also be useful to mention some of the terminology coined by Bliss et al (1983) which will be used in the present account. The term 'delicacy' refers to the fineness of the category under discussion. As one passes down any branch of the network the distinctions become increasingly delicate. Hence a move from the left to right hand side of the network involves increasing levels of delicacy. Another term which needs explanation is 'terminals'. The terminals are simply the greatest level of delicacy noted in respect of any branch of the network; in effect, the far right hand side of the diagram. The term 'paradigm' is also used in an idiosyncratic or specialised way to mean the allowed combination of terms for any network. This arises from the ways in which it is possible to combine sub-categories, or terms, contained by a bracket. For example, in Table 18 the main category CONTENT brackets REPRESENTATION, SUBJECT, and INTENTION. Each of these may be considered separately as aspects of the whole category CONTENT as taken in combination with any or all of the others. Each of these choices is a paradigm. Bliss et al (1983) use the term as it derives from linguistics in the sense that it represents a pattern or choice among alternatives. Despite the possible confusion with the word's common educational use in the post-Kuhnian discussion of alternative research programmes, it is thought useful in the present account to retain it noting the specialised meaning given to it by Bliss et al (1983).

The originators suggest that a network may be developed working from either end. One may begin from the least delicate features which appear to outline the area in question, moving by analysis and subdivision to greater levels of delicacy. This approach will be likely to reflect theoretical positions through the network. Conversely one may begin with the raw data which would represent the most delicate end, or terminals, of the network and through careful combination and re-combination work up to less delicate levels of the network. They point out, however, that the commonest approach involves doing both at the same time. This has the advantage that the preconceived notions as informed by theory, which are in effect the least delicate parts of the network are brought into conversation with the data.

It may help if the relationships present in a selected line of the network are described. Table 15 shows that DESCRIPTION is taken as a major division of the whole of display in the present context. In effect the term DESCRIPTION used here means the visible attributes of the display. This in turn is subdivided into how it is presented, the visible factors concerned with its production and what it contains. If we pursue CONTENT it is necessary to turn to Table 18 to examine greater levels of delicacy. SUBJECT is taken as one of the major divisions of CONTENT, in this instance meaning 'what is represented in the picture'. In line with what was expressed by the teachers the most prominent dimension is taken to be the relationship between the subject matter and significant things beyond the display, with CLASSWORK being one possible significant area of relationship and EXPERIENCE (meaning the pupils' everyday experience) being the other. RELATIONSHIP WITH EXPERIENCE is portrayed at the next level of delicacy as depending, in the present context, upon the extent to which the subject is EXOTIC or PROSAIC. At the terminals (which are a direct reflection of the data from the observation schedule) EXOTIC is subdivided into FANTASTIC, DISTANT in the geographical sense, and UNUSUAL, with the indication that

other divisions at the same level are possible. PROSAIC is similarly divided into COMMON and LOCAL, again with its being indicated that these are not the only possible divisions at this level. Hopefully, this example is an acceptable demonstration of the way in which the network can be used to reveal the particular perspectives which informed the analysis, and in this case influenced the data collection.

In effect what was used was a cyclic process in which not only was the network being developed from each end, but the adjustments which became necessary produced modifications to the least delicate end, which led in turn to changing the way in which the data were ordered at the terminals. If one further considers that subsequent observations were adding to and altering the emphasis of the data, some notion of the interactiveness of the process may be gained. One is conscious in doing this that important decisions are often largely arbitrary, notwithstanding the way in which they are informed by the remainder of the network. It may even be the major strength of the technique that those points where arbitrariness is at its greatest are made visible.

Table 15 gives the relationships obtaining between the four coarsest levels of analysis. The asterisks at the third level indicate that there are separate tables (16 to 24) which move from this point through successive levels of delicacy to the terminals. Bliss et al (1983) make the point that a network, however well informed by data, will represent one point of view of many.

a network, through the choice of levels of delicacy (and as we shall see later through other choices) presents a point of view, which by being presented becomes open to argument and criticism (p. 13).

In the present case, table 15 shows that the very first step reveals the researcher's interest, and perhaps some preconceptions. Display is divided into three main aspects, that which concerns itself with the VALUES which

people attribute to it, the CONTEXT in which the display is located, and the visible aspects of it which can afford a DESCRIPTION. It is this third branch which is of particular interest to the development and interpretation of the observation schedule. One of the principal ways in which the development of the network modified the observation schedule was to replace the five main categories for observation detailed earlier with the three shown here at the first level of delicacy; PRESENTATION, PRODUCTION and CONTENT. In this model PRESENTATION is concerned at the level of whole and part displays, with the way in which items have been arranged, grouped, and enhanced, PRODUCTION is concerned with what materials have been used and the people and processes involved in them becoming a display, and CONTENT is concerned with what is represented, and how it is represented, in the light of the intentions of those involved. This had the practical value of removing the general impressions category, which had proven problematical, and generally allowed observations to be grouped in a way which seemed to facilitate faster and more quantifiable statements. A further way in which the network proved useful was in making evident those points where the number of paradigms became so great that deliberate decisions had to be taken about what to exclude. The network places this sort of selection procedure on a significantly more rational footing, rather than being at the mercy of what might emerge in practice from the vigorous visual competition to command attention, which any display necessarily exercises. One has decided what is to be excluded and included, and even though the decision is often largely arbitrary, it has been consciously taken in the light of a wider view of the area.

No problems were experienced in using the observation schedules in practice. Teachers and headteachers seemed quite happy to allow the schedule to be completed, as they were to provide any background information which the observer required for its completion. In practice this was kept to a

minimum since part of the intention was to create a checklist which was capable of recording worthwhile aspects of the display from their appearance alone. Although a total of 26 separate observations were made the numbers reported in relation to any specific quality rarely approached this for two reasons. First, some of the observations were of a very short duration and only a few items on the checklist were covered. Second, the process of modifying the schedule, as the observations proceeded meant that categories changed from time to time, and the final version of the checklist did not really emerge until almost half way through.

It will be useful, before moving on to consider the results of the observations, to clarify one important use of terms. The term 'whole display' refers to all those things displayed in a discrete area of the school. This might be a single classroom, an assembly hall, an entrance vestibule or a corridor. Its 'wholeness' depends upon it being capable of being taken in by merely looking around.

The results of the observations

It is not the intention here to examine the results of the observations (see Appendix pages 112 to 128) in detail, but merely to select from them things which bear upon questions already identified in the conclusions to the survey, or things which are directly relevant to the main aims of the study as a whole.

A matter of interest is that several of the general points related to presentation of display tend to have a bimodal distribution. This is true for consistency of organisation, consistency between classes (see Appendix page 112), colour balance between displays (page 113), amount of labelling, neatness of displays, level of finish and uniformity of lettering

(page 115). It is possible that this is no more than a judgement effect, but it is interesting that it does not spread to all qualities marked on a similar scale. Consequently it could prove an interesting point to follow up in any extension of this work.

Other sources of data show that display appears to be universally regarded as a good thing by infant teachers, and the results of these observations tend to confirm that this carries into practice, at least in terms of the amount of available wall in infant schools which is dedicated to them.

'Coverage of walls' (page 112) shows that none of the whole displays observed covered less than 60% of the available wall space, and the majority were better than 80% with two spreading to the windows with a significant coverage too.

Another clear point of view evident from a great majority of responses was that teachers should rightly be charged with presenting the children's work to the greatest advantage, including mounting it. This is not borne out in practice with the same force as the previous point. Estimates of the amount of mounted work in displays (see Appendix page 116) indicate that a substantial proportion of classrooms have a large amount of unmounted work on display, but there are no instances of classrooms with no mounted material at all.

One of the central questions which has risen to prominence in the course of study concerns the extent and manner in which pupils contribute to the life of classrooms. In particular the extent to which they may participate in its executive decisions. An observation which was taken to connect with this, although somewhat indirectly, is the extent to which displays depend upon tableaux, because by definition they are a teacher product sometimes with minimal involvement of the pupils. The observations show (see Appendix

page 116) that they were a prominent display form in the schools observed. Only five of the whole displays observed had none, whereas 11 had a high proportion of them. In two thirds of the displays observed tableaux formed a substantial part. These observations are complemented by some aspects of production reported on page 121 of the Appendix, in respect of the amount of teacher design/drawing evident in the displays where two thirds (10 out of 15) are reported as high. Similarly the amount of 'component manufacture', which arguably shows a low level of involvement on the part of the pupils, is reported as substantial in that half the whole displays observed were judged to contain a high level of it. More direct estimates of children's involvement are given on page 120 of the Appendix. The pupils' contribution to the selection of items for display is judged to be low. It must be admitted that this is a difficult thing to judge from appearance alone, but in this case it was usually decided in the light of information given by the teacher. Pupils contribution to arrangement is similarly low with 12 out of 17 displays observed containing none at all.

All this is not unconnected with the single most prominent opinion held by teachers. That is to say that displays must contain mainly children's work. A direct measure of this was taken as an estimated percentage of the total work shown in a display. The results on page 119 of the Appendix are perhaps not as expressive of this opinion as one might expect. Only three from 24 observations were entirely children's work, yet it was common to find teachers who felt that only children's work, and nothing else should be displayed. A third of the displays observed contained less than half pupils' work, and although this represents a substantial amount of children's work being displayed it could be argued to be light in comparison with the strength of opinion expressed. It should be noted that children's work was defined broadly for these observations, with all forms of 'component' contribution, however mechanical, being counted as such. So,

for example, a tableau being a picture drawn, and perhaps stuck by the teacher using tissue which may have been scrumpled by the pupils was counted as children's work. There were not many examples of this extreme, but the observations on page 121 (Appendix) already referred to, show that some types of 'component' contribution were high.

At this point it is worth commenting upon the amount of commercial work used (see page 119, Appendix). Whilst not by any means as high as the pupils work, it accounts for more than half in about a third of the displays observed. This has an important bearing upon the theme of pictorial literacy which is central to this study. The commonest mode of representation for commercial work was photographic. The results on page 122 of the Appendix show that this was so for three quarters of those observed, and there were no examples seen where the photographic emphasis of commercial pictures was either low or absent entirely. On the same page an estimate of the amount of 'figurative' work, shows that all the displays assessed in this respect (14) were judged to be high in the predominance of figurative commercial work. Indeed one might go further to say that hardly any examples of non-figurative commercial work were seen at all, and the few that there were tended to be either wallpaper or fabric patterns. This tendency towards figurative representation is less marked in pupils' work, but still high with no examples of whole displays where non-figurative pupils' work predominated.

The relationship between displays and the ongoing work of the class should, according to the teachers interviewed, be an interactive one. Most teachers consider that displays should directly reflect the work of the class and form an intrinsic part of it. Page 124 of the Appendix shows two attempts at direct judgements of this. The first is an attempt to quantify displays where there is a predominance of work which is connected with classwork in

ways other than merely containing pupils' work. The second relates to the number of displays which contained examples of it being used as part of the immediate work of the class. In both cases the incidence of obviously related work tends to be low, to the extent that only about a quarter of cases were judged to be either medium or high in this respect. Not unconnected with this are the observations recorded on page 121 (Appendix) concerned with the extent to which displays were accessible to pupils.

'Accessible' in this sense meant two things taken together: whether it was physically possible for pupils to handle displays by moving, adding, or subtracting any parts of them, and whether they were permitted to do this. A display is reported as having accessibility when both are true in respect of at least some part of the display. In the event only one display was thought to be high in accessibility in the sense that large parts of it were open in this fashion. The great majority of displays (11 out of 13) were either low in this respect or had no accessibility to pupils at all. The same theme of relationship with ongoing work is also borne upon by the sorts of labelling commonly used. Page 122 shows that labelling was most commonly in the form of naming, with questioning, explanation, and suggestion occurring in only a third of displays observed.

The notion of 'suggestiveness' of labelling refers to the label offering the pupil a direct invitation to activity. This was considered sufficiently important, in the light of what teachers had said about the desirability of displays being proactive to classwork, to observe separately in respect of whole displays. The results are given on page 123 of the Appendix. Only three of the displays seen seemed to be high in this respect, the remainder (13 out of 16) were judged to be either low or contained no items which directly suggested activity to pupils.

The relevance of subject matter in displays to the immediate experience of the children was regarded as important by the great majority of respondents throughout the study. For this reason a direct judgement was made in respect of the displays observed (see page 123 Appendix). The observation separates commercial pictures from children's work since they each have different sorts of connection with the activities of the classroom. The number of displays where pupils' work was relevant to their direct experience was judged to be substantially greater than was the case with commercial work. Two thirds of the displays were judged to be low in respect of commercial work, whereas this was only half in the case of pupils' work. This is perhaps unsurprising in that commercial work with more or less exotic subject matter is fairly easily come by, probably more easily than pupil relevant subject matter. What is surprising is that as many as half the displays were either low, or contained no material which was directly pupil relevant at all. The definition of pupil relevance used here reflects that used by respondents, and means objects, people, places and events which are not dissimilar from those in their everyday lives. The sort of thing which was regarded as outside children's direct experience included most fantasy subjects (including fairy stories), exotic animals, obviously exotic places, and historical scenes. Diagrammatic arrays were usually counted as neutral. It follows from this that many of the subjects which were counted as not directly relevant to the children's daily experience were fairly commonly to be found in school.

The function of displays has formed an important focus throughout the study. Three types of observation were specifically aimed to this end. Page 123 (Appendix) shows the results of an attempt to judge displays, in a simple dichotomous way, as either predominantly decorative or instructional. A display was counted as mainly instructional when a significant number of items contained in it were judged as having the potential to reinforce

existing or create new learning, and decorative when the main pupil response was likely to be pleasure at their work being shown, or enjoyment of a colourful, lively, or visually harmonious environment. Using these criteria more than half (10 out of 16) were judged to be mainly decorative.

The idea of specificity of function (see Appendix page 125) was pursued by looking at the extent to which what individual items of display were trying to do was obvious by merely looking at them. Labelling was important to making judgements about this. In the event the spread across the scale is fairly even and shows no remarkable emphasis. The results of a more detailed attempt to judge what items of display were intending to accomplish is also reported on page 125 of the Appendix. The categories employed are those which had arisen during the course of the study, largely from teachers' comments. By far the commonest function was the publication of pupils' work (12 out of 37), followed by a general decorative function (8 out of 37). An item was counted as being in this category when it was not possible to see how it might be used except for visual enjoyment. This is a danger, since some items which did not overtly announce a purpose might nonetheless be used to a specific end by the teacher as part of a class activity. For example, a pattern might be used to discuss colour. The remaining functions are evenly spread and, in each case, rather small numbers. As with the previous observation, decisions in this area often depended upon how the items concerned were labelled.

Some of the teachers and headteachers whose displays were being observed had made comments at interviews prior to the observations. In these cases it was possible to attempt a judgement of the extent to which what was seen seemed to fit with what teachers had said they intended. The results (Appendix page 126) are interesting in that they tend to be bimodal, being divided between low and high with no examples of the medium position. It

must be recognised that this observation is particularly impressionistic, and hence suspect. It remains true however, that the researcher was left in four cases feeling that what was visible bore little relationship to the stated intentions of the teacher. A further observation made on the question of intentions has the results reported on page 125 (Appendix). This is an attempt to judge the extent to which the intentions for a particular item of sub-display were clear from merely looking at it. Labelling and what teachers had said at interview were, of course, important in making these judgements. This too tends to be somewhat bimodal, in that the number judged to be either high or low in this respect, is a lot larger than those that find the mid point. There were no examples of displays where nothing of their intentions was visible.

Because of its possible pedagogical implications, it is worth mentioning what was found in respect of 'styles' of individual display (the prevalence of tableaux has already been mentioned). 'Collections' of one type or another were the commonest style of sub-display observed, with more than half (9 out of 17) of the displays being judged as high in terms of their incidence, and only four being judged as low, with no examples of displays which contained none. The two types of 'matrices' noted showed somewhat different profiles of occurrence. Multiple matrices occurred in a rather bimodal way in which the majority of displays (11 out of 18) had few or none, but where they did occur they seemed to do so in a rather extreme way with six being judged high in this respect, and only one example of the mid point. It is possible that this indicates that it is a style which teachers feel strongly about, one way or the other. The occurrence of 'example matrices' is much more 'normally' distributed with a clustering about the mid point.

Discussion of observation schedule

It is not the intention here to discuss what was observed, but how it was observed. The findings of the observations will be addressed later in the discussion of display. The present concern is to consider the way in which the observation schedule itself was developed, and its validity as an instrument for providing worthwhile information about schools and classrooms.

Two processes were used to help in the development of the schedule: feedback from observations themselves, and systemic networks. The feedback from observations largely took the form of identifying certain key features and styles of display. In practice it was of value to have identified particular significant styles since the most immediate problem in describing displays in the field is the huge mass of visual information to be noted. Being able to represent this as the presence or absence of identified styles in the general milieu is to provide a means of forming figure-grounds relationships. The selection of the particular styles in question may be endlessly debated and modified, but it is probably sufficient to say that in practice they were visible, usually distinguishable from each other (even though occasional difficulties were experienced in this respect), and can be seen to have implications for other, and perhaps more central questions about schooling, such as pedagogy and classroom climates.

The value of the systemic networks is less straightforward, yet not in terms of whether the contribution to the development of the observation schedule was valuable, rather in terms of their value as a general research instrument for the expression of qualitative data. The process forces one to articulate the relationships between one's perceptions, which are largely

informed by theory, and the detail of data received. The whole process is made more stringent and systematic by the requirement to commit oneself symbolically to an unequivocal statement about important logical relationships between ideas. In this sense the very limitation of types of relationship which can be symbolised by it is a positive advantage. In short the discipline of trying to order one's thought in this way is a useful

clarifying exercise. Consequently the systemic network made a considerable contribution to decisions about the observation schedule design which, on the one hand, seemed to help its practical application, and on the other, allowed ongoing observations to influence the design in a systematic manner.

There is, however, a reservation concerning the extent to which the diagrams themselves are an adequate way of permitting access for the reader into the analytical process. Certainly they permit some access, which in itself may be an advance on discursive ways of expressing the process. However, it seems likely that the combination of the number of relationships shown, with the shorthand nature of the terms used, limits their power to describe the process in an easily digestible way.

Display and classroom climate

The school examples not only offered opportunities to observe displays, but also opportunities to do so with some acquaintance with the teacher concerned and the work of the classroom in question. Whilst these contacts were not sufficiently extended to consider them in the same light as ethnographic case studies proper, they were sufficient to allow the researcher to form some impressions about the relationship between aspects of display and classroom climate. In order to illustrate this, three examples have been chosen on the basis that they are different from each

other and show something of the range of possibilities.

Jane's classroom at Ceasham school was large, with windows down one wall. The building hails from a generous period of school architecture in the early fifties. It was the reception class, roughly divided by the positioning of cupboards into an entrance and 'wet' area, a main space and a carpeted 'quiet' corner. Most horizontal surfaces, except the children's work-tables, had books on them, sometimes in rows, sometimes in piles.

When the children entered, Jane greeted each separately. There was always a good deal of talk between children but no voices were raised and no sort of unruly or excited behaviour was observed during three contacts, of about an hour each, over three days. Children normally seemed to find their own activities, with minimal direction from Jane, but usually brought the teacher evidence of task completion before moving on to something new. The decision about what they would do next appeared to be mainly the pupils. Most work was in groups, although occasionally children choose to work alone. Hardly any control statements or signals were observed over the period, and the teacher's voice was rarely raised. It may also be mentioned that the children paid little or no heed to the observer, who appeared to be immediately accepted as just another person in the classroom. The dominating impression was of quiet industry, in which social interchange was the norm, with children largely controlling their own activity.

The dominating impression of the display was that it was untidy and rather fragmented. There was no visible overall theme or structure. About 90% was children's work, mainly 'collections' of a sort where a display is thematic, and the items are varied examples of related children's work. Some examples of large co-operative collages were present, but not sufficiently organised visually to rate as tableaux. There was a good deal of abstract pattern

work. About half of the work was labelled usually with open questions such as 'What can you see here?'. At a lower level on the wall, labels often invited activity (were suggestive) such as 'Can you put a petal on?'. The displays stopped at a height of two metres, and much of the display, up to about a metre, was quite unorganised. This was explained by the children being apparently in charge of most of this band. As children finished work they commonly found a space, perhaps by rearranging existing items of display and put the work up, usually without consulting the teacher.

In this classroom, at the most superficial level, one might say that the displays which were the most chaotic (in Brown et al's, 1973, terms) of all those seen, contrast with a peaceful and industrious classroom climate, which appears to be as strongly non-chaotic.

Celia's top infant classroom in Beeser First School was small in a way typical of much seventies building. It was arranged as a single space, although two bookshelves were placed in one corner in an island fashion to contain the class library. One wall was entirely of glass and, everything in the classroom was clean and neatly ordered. The children sat in designated groups, any movement was quiet, but teacher's permission was sought first. Very little movement was actually observed. They worked on designated tasks which were varied between groups, but all of which seemed to be carefully prepared by the teacher, and were usually based upon work cards. A child meeting a problem, or wishing to make a request, signalled this to the teacher by raising a hand, whereupon the teacher would go to them. Chatter was discouraged but not oppressively so. Control was exercised by non-verbal gesture or in a quiet voice, but fairly frequently, mainly in order to keep the level of noise to a 'working murmur'.

The displays covered about 60% of the available wall space and were largely confined to large fixed display boards. The dominating impression was of order, clarity and visual harmony. About 60% of the items were children's work, the remainder being commercial work, mainly photographic. This was not mixed with children's work. Each board was dedicated to a particular theme. 'Collections' and 'window display tableaux' were the principal styles, but two 'multiple matrices' were present too. The majority of items were small, except a few centre spread pictures taken from Visual Education, that were prominent in a 'stimulation' display for a history project. Labelling was mainly naming, but the purpose of most of the individual displays was self-evident from their arrangement and content.

In this case the well ordered and controlled industry of the class activity seems to be well reflected in the nature and detail of the displays.

John's classroom in Leemer Primary School was in a fairly old prefabricated building in the school yard. Having windows in the two longest walls cut down the amount of space available for display. It was large, had a cloakroom entrance, but was otherwise arranged as a single space. It seemed untidy in that most horizontal surfaces had an array of objects on them with no obvious organisation. The middle infant children seemed lively, loud, and many were good humouredly boisterous. The children were directed to specific tasks in groups in a clear and deliberate way. Where they had problems, or requests, pupils approached the teacher. There was normally a small group awaiting attention. John discouraged other than clearly purposeful movement, and transgressions of this together with a tendency for the children to become noisy rather easily, accounted for frequent control messages, normally delivered in a clear, firm, and occasionally loud manner. The common mode of exchange between the teacher and pupils was good humoured and jokey, but could be sternly severe at times.

The general impression of the display was fragmented, with variety of presentation of individual pieces clearly evident. About 60% of available wall space was used and about 40% of the work shown was children's. This may be taken together with John's firmly expressed view that children's work was most important in displays. A good deal of the work was written, often with a small accompanying illustration. Much photographic commercial work was in evidence, mainly of landscapes and natural history projects. The predominating display style was the 'collection' usually containing work in one medium. None of the work was overtly collaborative; the one example of pictorial tableau was an arrangement of individual cut out children's paintings of people and buildings. The apparent purpose of most of the displays was to record work that had been completed and perhaps reward children by its publication. In addition there were some loosely arranged explanatory diagrams. In this case too, the displays seemed to reflect the classroom climate, in that the whole display was composed of pieces with individual organisation and apparent purpose, but the whole was somewhat disorganised. The parallel existed, in that whilst the teacher deliberately determined and controlled the activities of the class, the intention was frequently subverted, and an overall impression of disorganisation was present, even though it was a good humoured disorganisation on the whole.

What may be drawn from these examples is that the ways in which displays reflect classroom activities and climates is by no means simple, although some connection is more or less inevitable. In two of the cases the way in which displays reflect the classroom climate seems to be much more direct than in one case. Perhaps the most important message which may be taken from the observations strikes a cautionary note about coming to conclusions about the quality of classroom activity by applying criteria which arise from received artistic wisdom on displays. For example, a lack of organisation in the displays does not mean that the classroom climate is likewise.

Discussion of display results

The importance of display in the minds of teachers was confirmed by the interviews. Apart from the clearly stated position of teachers and headteachers on this question, evidence is also available from the position occupied by display within school organisation. When asked to describe any school policies concerned with pictures virtually all those which were forthcoming were about display. All headteachers felt that the co-ordination of display was a matter for senior management and some have specific posts of responsibility allocated. Where there was no specific post, headteachers were able to show that some form of management arrangement for the co-ordination and encouragement of displays was in place. This was further supported by the extent to which headteachers influenced the full use of displays in the schools. Observations confirmed this universal valuing of display, at least to the extent that few wall spaces which could be used in this way were not; and no rooms, corridors, or halls were observed where displays were not prominent. It can be firmly concluded that display is generally regarded as good, even essential, to infant education.

The reasons why this might be so are to some extent explored by what teachers had to say about the uses of display. The range of different functions which arose from interview were largely the same as those produced by the survey, as was the general emphasis upon instructional rather than decorative functions. As in the survey, functions of display tended to be described largely in terms of the way they supported classroom activities and contributed to cognitive development, especially language. Observations tended to be at variance with this, in that a large proportion of work did seem to be mainly decorative, or for the purpose of publicising children's

work. It is probable that when teachers responded to the idea of pictures acting as reward in the survey, they were usually not including in this rewarding a pupil's efforts by displaying his/her work. This particular construction of reward seemed to be very common in practice. Indeed some headteachers in particular had institutionalised this by having a specific board in their office for the purpose. It remains interesting that this particular function was rarely articulated by classteachers, even though it appeared to be a major use in practice.

The development of an observation schedule was, in practice, a useful device to draw comparisons between what teachers said about displays, and what was actually on the walls. The systemic network was a useful way of bringing together differing perspectives, so that the framework for the observation schedule reflected both theoretical and actual observations of display. Similarly the identification of notable styles or types of individual display facilitated descriptions. Particular styles identified may be summarised as:

- Two types of MATRIX
 - (a) multiple
 - (b) example

- Three types of TABLEAUX
 - (a) pictorial
 - (b) diagrammatic
 - (c) window display

- Two types of COLLECTION
 - (a) normal
 - (b) inventory

The particular contribution which children made to tableaux was categorised as either (a) 'component' or (b) 'item' contribution. In practice this was a sliding scale although extreme examples were by no means uncommon.

The value of an observation schedule beyond the study itself is worth some consideration. The importance attached to displays implies that they reveal important things about the sort, and perhaps even the quality, of teaching going on. This may suggest that display is already thought of as a medium for information in the informal assessment of teachers. Certainly, accounts of display are commonly a part of assessment of teaching practice in initial training. If this is the case, then it might be something which is too important to leave at an impressionistic level. If those whose judgements matter to teachers use display as an index of professionalism, then a clear means of describing the display, which avoids the worst excesses of subjective judgement and contributes to some clear criteria must be of value. It would also be important that the link between the form of displays and the quality and nature of teaching interaction be firmly and explicitly established. This point is illustrated by the observations referred to earlier under the subsection 'Display and Classroom Climates'. The relationship is not simple, and neither the application of the sort of artistic criteria articulated by the literature, nor those things detailed by headteachers in the interviews get to the heart of it. The results of the present observations suggest that either would be dangerously misleading in some cases. However, what is certainly not being suggested, is that either the observation schedule used here, or the links between displays and classroom climates to emerge from the present study, would be adequate. The schedule would certainly require much further development before it could find a use in such a serious endeavour. Yet it may be the seed of an approach which could fruitfully contribute to the process of professional assessment (where the alternative is subjective guessing) even if that

contribution were no more than a measure of the correspondence between the teacher's intentions and the actuality.

Perhaps the most persistent view held by teachers about display was that they should be mainly children's work. The observation tended to show that, in practice, the overall proportion of pupils' work was slighter than might therefore be expected, and that what counted as children's work was open to wide interpretation too. In a fair number of displays, especially those containing many tableaux, the contribution of children was in some senses minimal, being largely confined to providing products to be displayed. On the whole, selection and arrangement of displays was seen as the teacher's job, and this was clearly evident from the displays themselves. If any difference in emphasis was evident, it was towards teachers taking an even greater role in selection and arrangement than one might have judged to be the case from what had been said. Certainly there were very few examples of children being involved primarily in the selection process, and the interpretation of phrases such as 'it is the teacher's job to arrange and present the pupils' work to its best advantage' took on an altogether different construction, in the case of some of the tableaux observed. In short, the conflict between views that might be argued to arise from a child centred ideology, and views held by the same person, which might be argued to spring just as clearly from a classical humanist, knowledge transmission ideology, was not lessened by the observations.

A teacher who publicly holds that all the display should be children's work might in fact, not only include significant amounts of commercial work, but more importantly so control the selection and overall design, that the contribution of the children is a minor one. It is worth recalling that the display in Jane's classroom at Ceasham was the highest scorer in terms of a combination of amount of children's work, interactiveness with classwork,

accessibility to pupils, and absence of teacher designed tableaux, but was without doubt the least scorer in terms of neatness, colour balance, grouping, mounting, and gave an overall untidy and unharmonious impression. It would appear to be impossible to involve children at the highest levels, and at the same time maintain the sorts of standards elucidated by Brown et al 1973. Yet these may be good representations of what is commonly thought to be impressive in displays from the adult's point of view.

A particular extension of child/adult focus is possible in relation to displays in public spaces. The function of display, as vehicle for public relations focussed upon visitors to the school, was mentioned by a number of teachers and headteachers, but was never suggested as a major one. In the context of all the functions mentioned it is extremely minor. Yet the dominance of tableaux and inventory collections in these locations was such that a general impression of being directed to adult tastes was distinctly gained. Could it be that public relations is seen as disreputable but necessary?

One other discrepancy between firmly held views and practice is worth mentioning. Relevance to pupils' experience was commonly held to be desirable. The sort of definition of relevance usually being employed was a very direct one, in which it was the pupils' everyday experience of his home and immediate community which counted. Observation showed that this sort of relevance did not dominate the subject matter of displays. In this case, it may be a question of teachers articulating a facet of the child centred doctrine without fully recognising the implication of it for the work of the classroom. Certainly the evidence of the displays suggests that much that goes on in the infant schools visited is concerned with fantasy, myth and faraway, even exotic, places and events. One would be defining relevance quite differently if this were argued to be relevant on the basis of

television, reading, and imagination.

Teachers' preferences for mode and contents of pictures was shown to correspond with the commercial work shown in displays. The main dimensions of colourfulness, detail, clarity and photographic perspective were prominent in the work seen. Examples of non-figurative adult pictures were rare; by comparison non-figurative or abstract work from pupils' was more common. There is the germ of a concern here which may be confirmed or otherwise by other data from the school examples. If almost all the published adult work to be seen on classroom walls employs a mimetic mode of realism, might there not be a danger that children will, at a very early point in their development, be taking the message that this is how 'proper' pictures are supposed to be. If this is so, the model of adult pictures would be sadly misrepresentative of 'proper' pictorial art. In such a case it would not be surprising if the tastes so formed ran to a simplistic overvaluing of mimetic realism.

Finally, although differences in organisation and content which reflected the age of the children were evident, none of these suggested differences in perceptual development. The principal differences concerned styles of labelling, the amount of number and letter friezes, the amount of large cut-out collage work, and the subject matter, in much the same dimensions as children's books vary in this respect. There were no detectable differences in adult pictures, in terms of the perceptual demands that they might make upon the viewer, and it is notable that what teachers had to say about displays was the same in this respect. That is to say, that none of the teachers made reference either directly, or by implication, to variations in pictorial perceptual ability which might exist between children of different ages.

CHAPTER TEN

THE PICTORIAL CLIMATE

Definition

The central concern of this study is to illuminate how teachers use pictures in their classrooms, both in the active teaching/learning milieu and the more passive aspects of classroom environment. These have been separately examined in earlier sections. The pictorial climate, as the term is used *here, amounts to those features* concerned with the school and the teachers themselves which may be influential or formative of particular sorts of use. This includes teacher preference and beliefs about children's understanding of pictures, school policy, resources, and aspects of teaching style which may determine the way in which pictures are used. In short, the pictorial climate may be seen as either, the background against which patterns of picture use may be viewed and better understood, or the presage variables which prescribe them.

Teacher preference

The very clear pattern of preference which applied to the style and context of adult pictures to emerge from the questionnaire survey was on the whole supported by the school examples. This pattern appears, from the comments volunteered at interview, to arise mainly from two inter-related beliefs about pictures in the classroom. First, that the main business of pictures in the infant classroom is the conveyance of information. This may be gauged from the earlier analysis of teachers' views of the function of pictures, in which the exemplary, explanatory, and surrogate roles clearly

dominate, whether one is listening to what teachers say, or observing what they do. Second, is the belief that children can best take information from pictures when they are realistic in a photographic sense, when they are unambiguous in content, and when they are not so cluttered and crowded with events so as to be confusing. It is possible, though by no means proven, that these beliefs may be partly explanatory of the popularity of teacher constructed 'pictorial tableaux' in displays. Such presentation can be interpreted as the teachers' attempts to take children's work and re-present it, in such a way that it conforms to these criteria, thus making it more valuable as a source of information.

There were occasional exceptions to this pattern of preference. Two headteachers spoke of the need for children to see 'proper works of art', meaning adult work where the emphasis is placed upon the aesthetic rather than the informational, and where stylisation as well as abstraction are an acceptable ingredient of the style. Similar comments were made by teachers in the same schools. However, it was notable that even in these schools such work was very little in evidence. One of the sources of such work is the picture loan service. The majority of schools said that they did use, or had used this service, but such pictures were only visible in a minority of schools, and never inside the classroom. In the four schools where pictures from this service were in evidence, all of them were displayed in public spaces, usually corridors. One headteacher made a point of buying adult art for the school, wherever funds permitted, but in this school too they tended to be concentrated in the administrative sections of the building. Over the whole sample reference to, and use of, 'proper adult art' was minimal in the context of all adult pictures used.

One of the criteria of preference indicated by the survey, and supported by the interviews and observations, cannot be easily accounted for on a straight information-carrying basis. This is the teachers' firm preference for strong as opposed to subtle colouring. Usually this particular feature was spoken of in terms of it being the children's preference. It seems probable, therefore, that the teachers' preference, in this case at least, derives directly from their perception of what the children themselves prefer. This is to some extent supported by the fact that in many cases it is actually a departure from the realism criteria. That is to say, as has been argued here, the 'realism' criteria are closely tied to the informational function of pictures, a preference for colouring of an unrealistic intensity must be explained on some other basis. On the evidence of the present school examples this is likely to be a perception of pupil preference.

The criteria for selection of classroom pictures is similar to the pattern of preference (see Appendix pages 106 and 111). There is mention of pictures being non-ambiguous, colourful, realistic and containing much information. Some other comments are consistent with this view too, for example, the need to avoid 'scribble pictures', 'highly abstract pictures are not shown to the children', and 'anything if it is clear and attractive', all have something of the same sort of connotation. However, there are a few comments which suggest different criteria for both the context and mode of representation. For example, one teacher felt that the most unambiguous style of representation was line drawing, and one of the headteachers expressed the need for 'artistic' (meaning abstract or stylised) adult pictures, and went on to say that it was important for children to see a range of different artistic effects. There is also some reference to pictures not being too 'busy' or 'fidgety'. Although related,

these are not quite the same thing: the first referring to the number of items depicted and the second referring to the amount of included detail. On balance then the photographic criteria for selection dominate, with the occasional dissenter expressing the need for pictures which showed a variety of artistic styles.

Two contrasting approaches to the actual collection of pictures were shown. Three teachers felt that careful selection was needed, but this was balanced by four who said that they collected everything with the main criterion being that the pictures should be large. The question of size was surprisingly important to many teachers. Large pictures were hard to come by, thus restricting their choice, and perhaps contributing to the expressed unselectivity. It does, however, have other implications in that it is suggestive of teaching approaches. Whilst the drive for large pictures sprang to some extent from the wish to use them in wall displays, it was also influenced by the popularity of the sort of picture discussion techniques described earlier, in which a single picture is addressed by a group of people together.

The main feature which distinguished the criteria for selection of book illustrations from other pictures, was the need for them to complement the text. This was particularly so with regard to them providing appropriate sorts of pictorial cues. In other respects they were required to have the same qualities as pictures in general; to be explanatory, colourful and realistic. It is possible that the requirement for a photographic form of realism was slightly less evident here than elsewhere.

The results of the survey pointed to an inconsistency between the teachers' strongly expressed view that pupils' work was preferable to adult work, and the specific criteria expressed for effective pictures, which was such that

only adult work could fulfil them. One possible explanation is that the criteria referred not to pictures in the classroom in general, but only to those which would be used in some direct instructional manner, or which were intended to have a particularly informational function. To investigate this further the sort of pictures used in this way were observed. Several pedagogical techniques involving pictures which might be described in these terms were noted. They included the typical 'picture discussion' sessions mentioned earlier, picture matching activities, word or letter to picture matching, story building or continuation based on pictures, classification using pictures, description of pictures between children, and identification of objects and events within pictures, not to mention a wide range of commercial packages and puzzles of one sort or another. None of these employed pupils' work. Indeed even materials which had a more illustrative function such as the pictures attached to work cards were also adult work; usually the teacher's in this case. It is therefore possible to say that where pictures were used in an overtly information carrying way they were mainly commercial and always adult work. Hence it may be that indeed teachers are mainly referring to pictures for direct instructional or informational use when they enumerate the criteria of clarity, detail and realism for classroom pictures. Yet it seems unlikely that this is the full explanation, since there is evidence of the same dilemma in display, where the resolution might include the teacher restructuring pupils' work in order to make it conform to the criteria more closely.

Children's understanding of pictures

Teachers offered very few comments which were directly concerned with children's understanding of pictures (see Appendix pages 105 and 109).

Nevertheless it is possible to gain some access to their beliefs, partly by what they had to say about their preferences for pictures, and partly by the

observation of the pictures which were in use in classrooms. The criteria which teachers held for pictures capable of carrying information imply that the children can understand this mode of representation. On this basis it may be claimed that teachers believe that photographic representation is fully comprehensible to the children and that the only real bar to its understanding is its representational clarity. In relation to the content, as opposed to the means of pictorial representation, the only bar to understanding which received notable mention was the possibility that it might be overly 'busy' on the grounds that children might find this distracting.

Observations of pictures in classrooms are on the whole consistent with the conclusions drawn from what teachers had to say. Of the adult work on display, which was a substantial proportion in most instances, the great majority was photographically realistic, colourful and clear. Whether the pictures were unambiguous depends upon how the term is defined. From an adult point of view, little ambiguity was evident in the pictures. Yet many were complex, often depicting places and events which were unfamiliar, and more especially depicting social interactions which depended upon a good deal of subtle interpretation for their understanding. For example, the burghers of Hamelin plotting in a conspiratorial huddle with hunched shoulders and surreptitious sidelong glances cast to the piper in the middle distance. Examples of overt pictorial convention were also reasonably frequent. Such conventions as arrows indicating logical or actual movement, satellised arrangements of key and associated objects, lines to mean 'belonging to', speed lines and multiple images, sections, and 'exploded' representations were well represented in the sample. One of the commonest pictorial conventions was the picture sequence with action moving from left to right, but occasionally in a circular or spiral arrangement (an example is given in Plate 11), and a few examples of parts and whole arrangements of

the sort explored by Elkind et al (1964) (see Plate 12). In addition there were a number of examples of familiar things or scenes presented from unfamiliar points of view (see Plate 13). A frequent feature of displays was the thematic arrangement, such as Plate 14, where there is an implied and frequently complex pattern of viewing. Indeed there were some examples of such arrangements which defeated the observer. Many pictorial conventions were evident and on occasion might be central to the comprehension of the picture or arrangement in question.

In short the question of what is, or is not, ambiguous in a picture depends entirely upon what the viewer is able to make of it. Any ambiguity is a product of an interaction between picture and viewer and not a simple property of the picture alone. Valerie's experience with the spider pictures was a good example. She believed that a combination of the sort of picture being used (clear photograph), together with the reinforcement of the outlined patterns on the spiders to be coloured, contained the message 'this is the colour and pattern that spiders are' to such an extent that she need not say it. However, it seems probable that the message that the children took from it was much more like 'this is the colour that these particular spiders happen to be'. To this extent the colouring was ambiguous in terms of the teacher's intentions at least. This instance illustrates a more general finding; that teachers' views about what could be understood from a picture tended to be defined by what they, the teachers, were able to take from it. This contrasted with language use, where there were visible differences between the language used to speak to the youngest children in the school and the oldest, and both of these were different from the way the teachers spoke to other adults. This special ability to match language to the age of the children seems to be one of the characteristic skills of the infant teacher and is evidence of a recognition of a developmental pattern in language. Few parallel examples could be

found in respect of pictures, although two comments from the interviews might bear on this. First the references to overly 'busy' pictures being confusing, and second the remark by one teacher that simple line drawings were easier for young children to understand. Apart from these all the other comments, and the observations, pointed to the conclusion that teachers do not recognise a developmental pattern in respect of picture perception. Only one instance could be found of an activity which did so. When Jane showed a picture sequence to her group she acknowledged that one child might not be able to follow it without help and provided that by pointing to each picture as she spoke, and finger tracing the path of the progression before leaving it.

Apart from this no activities specifically devoted to assisting the development of picture perception were described or observed. It may be argued that all activities with pictures, especially more complex adult ones, would necessarily contribute in some measure to the growth of pictorial understanding, if only because they offer the opportunity to practise skills. The typical 'picture discussion' session could be viewed in this way. There are two objections to this point of view. First, it contrasts with the way in which the development of language was acknowledged by the way in which teaching techniques clearly recognised and matched the developmental stages of the children. Second, there was nothing visible in practice to suggest other than an assumption of complete understanding. Indeed, where pictures were used in a direct instructional way they seemed to be treated invariably as unambiguous surrogates of the events which they depicted.

In this context it is perhaps not surprising that no examples were seen of classroom activities designed to give the teachers information about the pictorial perception of the children. Indeed, if one takes the particular

skills identified in section 3(g) of the questionnaire, such things as the ability of the child to make effective use of the context for identification of depicted objects, or voluntarily shift attention from a part to the whole of a picture, or ignore incidental information, it is difficult to see how any of the picture uses observed would give information on the attainment of these abilities. In every case it seems probable that any shortcomings in the responses of the pupil would be regarded as deficiencies of language rather than perception. No activities deliberately arranged to discriminate these were seen.

Teaching approach and picture use

Teaching style, defined in the survey as the position occupied by teachers in respect of a set of criteria which were taken as indicators of 'progressive' to 'non-progressive' approaches, was difficult to observe in the school examples. Yet differences were visible in terms of some of the dimensions identified, but these could not be quantified in line with the survey. Nonetheless differences in teaching approach, more broadly defined, and picture use were evident.

One way in which teachers were observed to differ was the extent to which they directed the classroom activity. This might be seen as comprising two elements, the extent to which tasks were set by the teacher, rather than the children, and the extent to which the detail of how tasks were to be performed was controlled by the teacher. The second of these resided partly in the precision with which the task was initially defined and partly the way it was supervised.

Over the period of observation teachers who set tasks in a very detailed way, including designating groups and monitoring the progress of the

activity, did so in each lesson. By the same token, those who tended to set broad tasks and then leave the children to decide upon their detail, including when they should end, did so consistently. Using this means of discriminating classroom activity three groups were detected within the teachers observed. Ayston and Festingly fell into the first category, where activities were broadly defined by the teacher and the children left to do them with largely non-directive inputs by the teacher. Beeser, Gee Park, Jayling and Midley fell at the second level, where most things which were going on seemed to be monitored, but a fair degree of activity control was nonetheless given to the children, for example in respect of *changing* composition and activity focus of groups. Kayton Hall and Leemer, maintained a tighter control in all aspects of classroom tasks. The remaining school, Ceasham, was more difficult to categorise, in that the whole class had a large measure of freedom to pursue tasks in their own way and to largely decide what they should do at any time. Yet, in each session one group would be identified to work with the teacher who would exercise tight control of it. At any time what, within the present categories, might be described as extremes of teacher direction, were visible at the same time at Ceasham. Because the large part of the class were allowed to decide their own activities it would tend to be more associated, in the present categories, with Ayston and Festingly than Kayton Hall and Leemer.

Using this grouping it is interesting to look at the sorts of intentions which teachers had for the observed teaching sessions (see Appendix page 127). There were some similarities between the intentions of Anne and Irene, from Ayston and Festingly respectively, which distinguish them from the others. They both have a particular activity focus, with Anne seeing the use of the slide viewer as an important attainment in itself, and Irene attaching a similar importance to the selection and completion of a puzzle. This is shared to some extent by Gill at Midley when she gives tracing work

as an intention, but this is more clearly a means to an end; number work and discussion. Similarly, Anne and Irene have in common an end product in the social/emotional domain. In Anne's case this is 'sharing' and in Irene's it is 'excitement and enjoyment'. This is not unique in that Valerie of Gee Park mentions a variety of emotional responses, but this is more a means to an end, the end being language development. In short, the qualities which characterise the intentions of the teachers with the least directive teaching approaches, in the present sample, are more focussed upon either activity as an accomplishment, or affective ends. At the other end of the postulated scale nothing particularly distinguishes Mary at Kayton Hall and John at Leemer from the rest. Each have the same, mainly language focussed intentions, that others in the group have.

The survey showed a distinct relationship between four teaching style variables, i.e., the integration of the timetable, the interactivenss of planning (expressed in the survey as more deliberate and more spontaneous planning), the allocation of decisions to pupils, and focus on other than the 'basics'. Using the present way of distinguishing the school example teachers, on the basis of non-directiveness, some connection seems to exist with a 'focus other than the basics', as discussed above. It is also true that Anne and Irene seemed to exhibit a connection with the remaining two variables in that, unlike most of the others, the whole period between breaks was given over to the activities in question, and where children wished to continue across the break (except lunch) they were permitted to do so. The planning too was more open, in the sense that it only consisted of providing the framework for the activity, with no attempt being made to predict the significant learning events which might arise in detail. These were exploited in an interactive way as they arose. In practice, Ayston and Festingly are examples of how the teaching style variables in question are logically linked. Once the decision is taken to permit the pupils a greater

measure of freedom in deciding the course of an activity, detailed planned outcomes became less predictable, and move more towards the affective and away from the more clearly academic, since left to their own choices one of the things which children will do, in one form or another, is socialise. On the basis of the present observation it may be claimed that in practice there are inevitable links between the variables concerned.

However, what is equally clear from the case of Jane, is that it is possible to combine extremes of the variable within the same teaching approach, given that groups are treated differentially. The broad ambience of Jane's classroom is outstandingly non-directive in the context of the nine teachers observed, yet at any time she will usually be working with a small group in a highly planned and directive way, whilst the others get on with their own things. Jane's case suggests caution in the interpretation of the scales offered in the survey since she consistently combines, within an overall coherent teaching strategy, extreme positions on some of the variables: notably the scale concerned with prior planning and that concerned with pupil decision-making.

Another area of observation which may have implications for teaching approach is the relationship between teachers' stated intentions and evaluations. Table 25 represents a crude analysis of four features of this relationship. Column 1 is a statement of the extent to which the evaluation included mention of the main items which had been expressed as intentions. This may be examined in greater detail by comparing pages 127 and 128 with pages 129 to 131 in the Appendix. The number of items mentioned as important goals of the activity varied from two to four. Where teachers mentioned, however glancingly, all of them in their evaluation a 'yes' was scored, where they mentioned some of them but not all a 'partly' was scored, and where none of them figured in the evaluation a 'no' was scored. This

refers to the part of the teacher's evaluation before the researcher revealed his observation, which in all cases was directly related to the stated intentions. What is revealed, is a rather patchy situation in which two teachers made reference to all the stated intentions, four referred to some but not others, and three referred to none at all. In the case of these the intentions had been expressed as learning outcomes, but the evaluation made reference only to the process, with comments being mainly directed at how well it went in general and the extent to which children behaved as expected.

Table 25

Features of teachers' evaluations of observed teaching episodes

School	1	2	3	4
Ayston	YES	YES	PARTLY	YES
Beeser	NO	YES	NO	YES
Ceasham	PARTLY	YES	PARTLY	YES
Festingly	PARTLY	YES	NO	NO
Gee Park	YES	YES	NO	NO
Jayling	PARTLY	NO	NO	YES
Kayton Hall	NO	YES	NO	YES
Leemer	PARTLY	NO	NO	NO
Midley	NO	YES	NO	YES

Column 1 = Whether the teacher addressed the previously stated intentions.

Column 2 = Whether previously unstated goals were added.

Column 3 = Whether the observations of the teacher substantially agree with those of researcher.

Column 4 = Whether the evaluation led to the teacher talking about modification to future sessions of the same sort.

Column 2 takes this comparison further by looking at the extent to which teachers made reference to the accomplishment of learning goals that had not figured in the stated intentions. All but two of the teachers added new learning goals. For example, Anne at Ayston had originally mentioned that the children would gain the ability to use the slide viewer, that it would hold their attention, and that it would encourage sharing. Her evaluation added 'language' and 'imagination' to the abilities developed. In practice, it is not surprising that this should occur, since observing the children in any activity is likely to present the teacher with features of the activity that had not come to mind before the event, and in turn these are likely to suggest possible learning outcomes. Teachers who had addressed themselves to evaluating only the original intentions, and had addressed all of them, would have a 'YES' for column 1 and a 'NO' for column 2. There are no examples of this.

Column 3 records the extent to which the teacher's observation of the specified behaviour agreed with that of the researcher. Disagreement does not mean that the teacher challenged the observations of the researcher, merely that the observations of each differed in a substantial way. For example, Gill at Midley was interested in the extent to which her workcards held the attention of the children, and what were the main things that acted as distractors. On-task behaviour was defined as looking at the workcards, filling them in, or anything else which was clearly an interaction with the cards or the tasks they suggested, as well as the selection of new cards. The teacher worked with individual pupils within the group and children were free to join or leave the group at any time. The method of observation adopted by the researcher, and agreed by the teacher, involved logging the movement of children and noting both the distractors and the percentage of on-task behaviour at one minute intervals over a total session of 20 minutes (see Appendix pages 98 to 100). What emerged was that there were three

distinguishable types of distractor; socialising between children, external happenings such as someone coming in to the room, and the teacher offering praise to individual children who may or may not have been members of the group. The results showed that social interaction between children distracted only those directly involved and occasionally one or two others. Hence, in whole group terms, this accounted for only a small part of the off-task time recorded. External happenings tended to distract the whole group, but for a very short time, in most cases a matter of a few seconds. Teacher praise, however, had a much more profound effect on the whole group. Whenever the teacher praised a pupil's work, usually in a quiet voice directed to the individual involved alone, almost the whole group paid attention to it for its entirety, and some spent additional time looking around before starting again. This happened frequently throughout the observation and consequently accounted for the great majority of time spent off-task for most of the children.

At the end of the session, and before this was revealed, Gill gave it as her opinion that social interaction between children had been the most potent distractor, but recognised that the external happenings had had an effect too. She was not aware that praise had acted as a general distractor at all, and was surprised to discover the part which it had played in producing off-task behaviour, but in reflecting on the session in the light of the observation she agreed that it had been so. The immediate response was for Gill to question her original definition of on-task behaviour, in that she felt it valuable that children should attend to the praise offered to others. However, she ended her discussion of the point by not being certain either way, with the resolution that it was something she needed to think about further. Her dilemma was that whilst she felt that her original on-task definition was correct for the workcards in question, yet at the same time praise was good; the more the better. This left her feeling that

she might have to rethink the precise technique, because she did not want one to distract from the other. In Gill's case she was noted as a 'NO' in the table.

The general picture is that none of the teachers made the same observation as the researcher, but two had some measure of correspondence. This discrepancy between the observations of the teacher and the researcher is not surprising. In most cases the observations were very specific and required both the undivided attention of the researcher and a prepared checklist. Even in the case of the more impressionistic ones the difference in the attention possible between the teacher and researcher was considerable. This is especially important in that several of the episodes involved children with learning difficulties where teachers felt that it was important to receive information about the differential responses of pupils in the group. Although the difference is unsurprising, it is a cause for concern in that the teachers considered it important to have the information concerned, and each had made an observation of the behaviour in question which turned out to be inaccurate, but would, in other circumstances, have been the basis for curriculum decision-making.

This connects with the information contained in column 4, which is an indication of whether teachers talked about modifications which they would make as a result of their evaluation, including the observations of the researcher. Most of the teachers, six out of nine, did so. Intended modifications included sequencing the activity more (AYSTON), spending more time on colour mixing (BEESER), introducing more open questions (CEASHAM), taking two identified children on their own (JAYLING), developing the activity in 'all sorts of directions' (KAYTON HALL), and linking the activity more to other activities (MIDLEY). None of the planned modifications involved the selection, or pedagogical presentation, of the

picture concerned. This is particularly notable in that, in at least some cases, there was reason to suppose that the shortage of responses might be related to the match between the questions asked and the picture content.

In the most general terms the school examples tended to support the conclusions drawn from section 2 of the questionnaire. Most of the classrooms observed had a clearly differentiated timetable. The variations in this respect being from the operation of whole periods between breaks, to sessions being clearly separated into three in the same period, with all children changing tasks each time. The majority of teachers also depended to a large degree upon prior planning, usually done at the beginning of the week, with some variation evident in the extent to which chance happenings were permitted to dictate new directions. Two of the teachers observed claimed a class structure aimed at permitting children a large measure of choice in selecting their own activities. In only one of these did this extend to the pupils independently making selections of activities across a wide range. In most cases pupil choice was clearly delimited within defined boundaries, for example, the children being directed to a puzzle or game but being given the choice within them, or being allowed to do anything among say five or six things in the activity corner. The distinct focus on the basic subjects as the main aim, which emerged from the questionnaire survey, was largely borne out by the school examples. The great majority of work seen was oriented towards reading, writing and numeracy. The specific goals of the observed sessions were mainly oracy in the first instance, but the particular focus of the vocabulary was, in many cases, directed towards the basics. Displays also had a similar emphasis upon the basic subjects, especially in those sub-displays which were clearly of an explanatory sort.

The institutional context

Official school policies on pictures were entirely concerned with display, but when headteachers were asked to say how they unofficially influenced the use of pictures in the school a few references to other areas emerged (Appendix page 109). Two headteachers said that they encouraged teachers to use pictures for the purpose of developing prediction skills. A further two said that they encouraged the use of pictures in all contexts, and one of these said that she removed books from classrooms if the pictures were not good enough. The criteria in this case were concerned with colourfulness, realism, clarity, and the extent to which they related to the text. With these few exceptions all remaining influences on the use of pictures which headteachers reported were centred upon display.

Another sort of influence upon the pictorial climate was the provision of resources. The great majority of schools report some sort of centralised picture library. Only one headteacher was opposed to the idea, feeling that central systems encourage the retention of old pictures which became stale and tattered. All class teachers reported that they made their own collections of pictures. Independently of the central systems some talked about collecting almost anything, two spoke of getting them from the pupils, and a further two made collections in preparation for specific topics on projects, then went on to eventually incorporate them into a general collection.

The classification of pictures for the purpose of retrieval was perceived as a problem by all the teachers. None felt that they had a really satisfactory system. Two of the central systems had no classification system at all, four used project themes, one used school subjects only, and six used a mixture of school subjects and project themes. Two headteachers

said that they intended to develop a system which allowed pictures to be integrated with the book classification system, but neither had yet done so. Classroom collections were mainly accessed by memory alone, but where systems of classification did exist they were largely based upon the topics which teachers intended to use in the year's curriculum. In all, the general picture to emerge from teachers' comments on classification is similar in most respects to that produced from the survey.

Two other aspects of resources, to obtain mention by teachers, were cost and availability. Three headteachers mentioned that they allocated a part of their capitation allowance to buying pictures. A further three, commented that pictures of the sort produced by educational publishers for specific use in infant education were expensive, two of them going on to say that for this reason they made full use of the free sources, such as the Safety Council and the Health Education Council.

Six teachers in all, two headteachers and four class teachers, gave it as their opinion that large pictures of the right quality were difficult to obtain at any price. Some individual sources of commercial pictures received mention, the most common, by a large margin, being the magazine Visual Education.

Summary and discussion of pictorial climate

The pattern of preference for pictures, expressed by teachers at interview, agrees with the results of the questionnaire survey. That is to say, that in the main they felt that the most educationally valuable pictures were realistic (in a mimetic sense) and colourful. This preference was evident in practice as well as being reflected in their criteria for the selection of pictures. A few teachers also pointed to the value of more abstract or stylised work, but this was not evident from classrooms.

There is reason to believe that the large majority of teachers assign a largely informational role, in the sense that Magne and Parknas (1963) define the term, when considering the value of adult pictures in the classroom. In terms of the present typology this includes the exemplary, explanatory and surrogative functions. In order to explore the apparent contradiction between the expressed criteria and the equally strongly expressed preference for pupils' work examples were sought of pupils' work being used in an informational way. Within a wide range of different sorts of picture based activities no examples were seen. However, it is possible that the pictorial tableaux, seen in so many classrooms, represents a compromise in this dimension, in that it may be seen as the teacher recomposing pupils' work to increase its photographic realism, and consequently increase its informational value.

Information on teachers' beliefs about pupils' understanding of pictures came mainly from observations of what was actually used in classrooms and the sort of questions which teachers expected children to answer in respect of particular pictures. The main indication was that teachers did not see pupils' ability to take meaning from pictures as problematic. Although there was some feeling that the children needed pictures which were unambiguous, a further examination of this showed that the teachers tended to define what is ambiguous in their own terms, rather than the pupils'. This contrasts with oral language, where there was every indication that teachers recognised a developmental sequence and modified the language used with pupils in accordance. This point was further supported by many of the displays observed, that included a range of perceptually demanding techniques, which according to research were not likely to be understood by pupils of this age (Vurpillot, 1976; Vernon, 1976; Beagles-Roos and Greenfield, 1979; Luczoz, 1982; Marshalek, 1983). This is lent further

support, in that no examples were seen of activities designed to facilitate the development of the picture perception of pupils. Similarly, no examples were seen of activities intended to give teachers information on the pictorial interpretive skills of pupils. In short, the indications are that the sort of developmental process, in which pictorial interpretive skills are gradually acquired over early childhood, indicated by research, is not recognised by the majority of teachers, who behave as though children gain much the same information as they do themselves from pictures. Such exceptions as there were to this trend did not agree with the research on what the developmental features are.

Inasmuch as it was possible to make observations which bore upon general teaching style the school examples showed much the same trends as the survey. That is to say, that timetables were largely differentiated, planning was largely done in advance and adhered to, the main focus of work was the 'basics' - in particular language, and decisions about classroom activity were mainly the teachers'. An attempt to differentiate the observed classrooms on the basis of this last quality produced three groupings according to the extent to which children were permitted to select their own tasks. The two teachers who were most free in this respect seemed to place most emphasis upon affective features in their stated intentions, and had a tendency to view activities as an end or accomplishment in themselves. One teacher exhibited almost the extremes of directiveness within the same teaching style - highly directive with one group, and highly non-directive with the remainder. This approach has some similarity to that used by teachers who are identified as 'group instructors' by O.R.A.C.L.E. (Galton et al, 1980). There are similarities in the emphasis placed upon working with groups, but not necessarily in respect of the contrast in directiveness identified in the present observation.

The way in which teachers expressed their intentions, and the relationship between them and their evaluations, also illuminated aspects of teaching approach. The majority of teachers couched their intentions in terms of developmental outcomes, with greater or lesser degrees of generality, which suggests that they may be operating within a rational planning model of teaching. However, the relationship between stated intentions and evaluations tends to challenge this. In many cases the two were not related in what one would think of as a rational manner.

Although some evaluations did address the original intentions others did not, and even those which did were usually considerably changed. This can be accommodated within the rational planning model by seeing it as an outcome of what Matza (1964) termed 'drift'. This recognises the unintended effects of a decision which only became visible as the associated activity proceeds, and which can adapt the original intentions in the light of practice. In other words, the rational planning model is merely being extended in the light of more immediate information forthcoming from the process of the activity, which generates additional intentions as it goes along. It remains rational in that the intentions precede the assessment of them.

This explanation will not do for those occasions when the original intentions were not addressed at all, particularly since most of these also contained a significant shift from intentions expressed as outcomes to evaluations focussed upon process. These lend to support to Calderhead's (1984) conclusion that teachers' normal mode of planning contrasts sharply with rational planning models. This point is also borne upon by the low level of agreement between teachers and the researcher about the detail of both the process and outcomes of the episodes. Kyriacou (1986) expresses an important feature of rational planning in the following way:

With regard to planning how the success of a lesson is to be evaluated, a teacher needs to build in strategies that will enable him or her to monitor the progress of learning during the lesson and to assess such learning after the lesson.

(P. 118)

In the present observations the teachers had expressed detailed criteria for success before the lesson, which became the basis of an agreed observation schedule. In most cases the teacher's view of the attainment of the criteria was different from and, in some cases, quite contrary to the researcher's views. Yet upon reflection, in each case, the researcher's view was accepted by the teachers. What is suggested is that the teachers either did not, or could not, observe the phenomena in question. The first of these may well be explicable in terms of the foregoing discussion which suggests some unease of teachers with the rational planning model. The second, that teachers could not observe the phenomena is no surprise. As long ago as 1938 Murray gave a detailed account of the difference between assessments of the environment seen by a detached observer, which he termed 'alpha press', and assessments perceived from the point of view of the milieu inhabitants, which he called 'beta press'. The detachment associated with alpha press permits a level of critical awareness not normally available to beta press, but in the present case the practical constraints above are sufficient to guarantee that the teacher will be unable to note the fine detail of the behaviour. For example, when a teacher formulates the intention that he or she will add to pupils' vocabularies by the agency of picture discussion, this may simply not take into account the problems of observing evidence of its attainment. This would involve some information on the extent to which each pupil had used language and the extent to which it was breaking new ground. In short, one may ask whether the sort of impressionistic observation thrust upon teachers by the multiple demands of their role can possibly inform judgements about precise objectives? If not

are there other strategies open to the teacher which can be applied in practice? In the light of the part played by the researcher in the present observation, it is possible to argue that to be effective such strategies would be likely to involve a third party who had been informed of the teacher's criteria for success. If this is so it might have some important implications for the value of team and collaborative methods of classroom teaching.

The context of picture use was taken to include influences within the school and issues of picture resources. Official school policies tended to bear upon picture use via the agency of display, but most headteachers were prepared to admit an unofficial influence in the form of general encouragement to use pictures. The almost indiscriminate valuing of pictures in the classroom noted earlier is largely reflected in this influence. No headteachers voiced any reservations about the use of pictures itself, although one or two did point to features of the balance between adult and children's work. Most schools had some sort of centralised picture system and considered it a valuable if not essential resource. Similarly, all the teachers had a classroom collection of pictures. Neither headteachers nor classteachers were satisfied that they had an adequate classification system for the retrieval of pictures from storage, but this was not considered of much importance by class teachers, who in the main depended upon remembering the location of specific pictures in the context of a fairly loose indexing system. This provided a greater problem for centralised systems which were open to all the teachers. Most headteachers had at least promised themselves to improve the classification one day. This promise may underestimate of the intrinsic difficulties in classifying pictures. The literature of resource organisation has little to offer beyond the practices seen. A number of writers emphasise the

importance of good classification (Wittich and Schuller, 1962; Williams, 1963; Cable, 1965; Gordon, 1986), but none of these come forward with a system which can be applied in the primary school. The problem is, as Cable (1965) notes, that any picture is about many things and an effective system would allow for it to be accessed from any of these. The problem does not end there, since leaving aside content there are other features of pictures which may be thought important, such as size, or even style in some broad division such as 'artistic' and 'topographical', which interacts with other dimensions of classification to create a vast number of categories. The idea mooted by a few headteachers, that pictures might be classified within the same system as the library books, is unlikely to meet all these difficulties, but may have a value in terms of classifying content alone. Unfortunately no examples were seen of it in practice.

CHAPTER ELEVEN

CONCLUSIONS

Perhaps the most striking impression to emerge from the study as a whole is the largely uncritical approbation surrounding pictures in infant schools. The value assigned to pictures as learning aids could hardly be greater. Not only do most teachers consider that virtually all learning is enhanced by them, but they seem confident that those who may evaluate their teaching feel the same way. Since this also appears to be true for headteachers the class teachers' confidence is largely satisfied. This level of acceptance may also be seen in much of the literature which touches on the value of pictures in early schooling (Phelps, 1969; Corbin, 1970; Ridgway, 1976; Mays, 1985). However, in the study the general acceptance of pictures is not entirely unconditional, and two provisos are evident. First, there was some feeling that real objects and events were preferable to pictures : a sentiment which is supported by Mays (1985). This suggests that a mainly surrogate role (Bruner and Olsen, 1973) is assigned to pictures by many teachers. This idea, that what pictures mainly provide for learning is access to objects and events beyond the classroom, was supported by both the preferences expressed by most teachers, and observations of how pictures were used in practice. Second, the almost universally held belief that the pupil's pictures were best. This apparently unexceptionable belief is interesting in that it stands in tension to other findings of the study. For example, the criteria for pictures as learning aids held by most teachers which are not satisfied by children's work, and the observation that pupil's work is rarely used in a directly instructional way. One way of explaining the evident contradiction is as the expression of a dilemma in Berlak and Berlak's (1981) terms, in what they term the 'control set'. In this they see views of the child as a whole and autonomous person in tension

with views of the child as a student. The first of these aligns with what Alexander (1984) terms the rhetoric of the infant school, in that it adopts a child centred stance, in which the products of the child are the right and proper medium of learning. This view also implies a personal view of knowledge in which the pupil is its creator, as opposed to a public view of knowledge, in which the pupil is merely the recipient. The child as an artist produces pictures which express his or her individual knowledge of the world; the sort of adult pictures used express public knowledge of the world. The present teachers will accept that the 'correct' pictures for the learning environment are the former, but insist that the main medium of instruction be the latter. The dilemma may be said to consist of a child centred philosophy, in the sense that writers such as Ridgway (1976), and Blenkin and Kelly (1981) use the term, being combined with a transmission view of knowledge. The child centred focus is associated with a personal view of knowledge, hence what emerges is an uneasy compromise which can only be maintained at the cost of ideological inconsistencies. Wall displays are particularly illustrative of these inconsistencies. For example, whilst maintaining that children's work should be the main or sole medium, few teachers permitted children to participate in the arrangement or presentation of displays. By various processes of mounting, collaging and composition, the work was substantially altered to conform to adult perceptions of pictorial values. This is in no way surprising, since observations show that where children are allowed a large measure of participation in these aspects of display, the result is distinctly untidy and unharmonious. It follows that a teacher cannot permit the logical result of placing maximum value on the children's products and at the same time achieve normally acceptable 'standards', since these come from an entirely different ideological stable. Perhaps the most telling example of an attempted solution of the dilemma in practice is to be seen in the pictorial tableaux. The children's work, whether it be paintings of

individual figures or basic components such as crumpled tissue, is collaged by the teacher into a composition which has both orthodox perspective and socially rational relationships between the elements. The success of this solution must be judged in terms of the implications which it has for the definition of the term 'children's work'. The presence of this dilemma must have a substantial influence upon any account of teachers' values for pictures. For it is felt as a tension between, on the one hand, an unconditional acceptance of all pictures, especially those which faithfully fulfil a surrogate role, and on the other, the rejection of adult work on the grounds that it challenges the child centred philosophy.

In the light of this it is surprising that it is possible to account for the criteria for the selection of pictures, used by the great majority of teachers, in a fairly straightforward way. For adult pictures the criteria are representational fidelity in a photographic sense, clarity of style and content, and colourfulness. In the case of books there is the additional criteria of relatedness to text with the implication being that it should depict the words used in the text. Other general criteria, such as relevance to the pupils, were both less universally held and less straightforward. Whilst the criteria of fidelity, clarity, and colourfulness were evident in practice, relevance to the pupils was not.

The term was defined by teachers in terms of immediate relevance to the pupils experience of home, school, and the community, but observations of displays revealed that such pictures were rarely in the majority. Indeed the opposite was true with displays being commonly dominated by work depicting the mythical, fantastic, and exotic (or at least unusual). It seems likely that the criterion of relevance is not actively used in the selection process in the way that the others are. The criteria at least imply that teachers have in mind a largely instructional role for adult

pictures in the sense that Magne and Parknas (1963) use the term. This is supported by other evidence which bears upon the classroom uses to which teachers put adult pictures.

The developmental ends which teachers see pictures as serving are mainly cognitive with language development dominating. The affective/social domain is not entirely neglected, but does occupy a comparatively minor position. Aesthetic development barely gets a mention and observations support the view that it does not figure largely in teachers' purposes for pictures. It may be, however, that they see the vehicle of aesthetic development as picture production, rather than learning from the work of others. It is difficult to decide whether this pattern, with its emphasis upon the cognitive and linguistic to the comparative neglect of the social, affective and aesthetic is specifically related to picture use in itself or merely a reflection of the emphasis of classrooms work in general. The latter possibility is consistent with the distinct emphasis upon the 'basics' shown in the survey.

Two terms met with in relation to picture use deserved special exploration. These were 'stimulate' because it was so frequently given as the main function, and 'reward' because its use contained apparent contradictions. An analysis of the way that teachers used the term 'stimulate' revealed it as a composite of several functions. It combined elements of motivation or arousal, but most clearly related to providing information. When a picture was said to stimulate language it did so because it contained information which could form the basis of the language. The term is used to mainly denote arousal in common parlance, yet as teachers used it it had much more in common with the Victorian 'conversation piece' in that the ability to sustain interest through the information contained was a major feature. The contradiction about the term 'reward' arose from a conflict between the

teachers' claims that they rarely used pictures to this end and the observation that one of the reasons for the inclusion of much children's work in displays was to publicise their work, and hence reward them for achieving a publicisable standard. In the final analysis, it appears that this was not the sort of conflict which had at first seemed to be the case. When teachers responded either, in the questionnaire or in interview, to questions about reward they mainly had in mind instances when seeing a picture would be the direct reward for some task accomplished. For example when a child might be rewarded for reading a page of text by being allowed to turn the page to see the next picture. The displaying of pictures to publicise children's work was normally not seen as using pictures to reward in these terms, even though it was acknowledged that children would find it rewarding. In general the term itself was not something which teachers tended to use unprompted, preferring instead the more positive 'reinforce', which may seem to them to have a more constructive feel about it. It is possible that teachers apparent dislike of the idea of rewarding children has deeper roots in the rejection of extrinsic motivation as an effective way of facilitating learning. Certainly much that was said at interview suggested that infant teachers hold a deep seated view that the induction of intrinsic motivation is an important part of their role, hence recourse to extrinsic motivating approaches (reward) may be seen as illegitimate.

The most commonly observed use of pictures, outside of displays, was the picture discussion. This was interesting in its similarity of format between teachers; the relative positions of teacher and pupils, the type of verbal interaction, the intentions, and the sort of picture used. In each case the picture was chosen on the basis that it would operate as an immediate extension of experience; the surrogate role. The sessions were predicated on the assumption that this vicarious experience would enable children to answer questions by drawing information from the picture which

could be taken further by relating it to their existing knowledge. This presumes that a substantial number of questions would refer directly to visible pictorial cues, but usually this was not what was observed. In most cases only a few initial questions related to what could be seen, and the remainder tended to focus upon the children's existing knowledge in the general area indicated by the picture. It is clear that a greater level of picture relatedness would have required more intensive preparation than was the case. It seems likely that it is easy to underestimate what would be involved in such preparation. Perhaps a good parallel might be found in Strang's (1969) work on informal reading inventories. She shows that, in order to come to conclusions about children's comprehension of written passages, it is necessary to base one's questioning upon a careful pre-analysis, to determine a range of different sorts of information contained within it. In the present observation it would seem that the teachers would require something similar in order to realise their expressed intentions. This appears to be an area which would benefit from further exploration with a view to uncovering effective techniques of preparation and questioning.

There is some indication that teachers do depend upon pictures rather more for teaching children with special educational needs than others. This seems to relate to the commonly held view that pictures are a way of communicating directly with non-readers, and is probably connected with the belief that pictorial literacy may be taken, for all practical purposes, as given. There were differences in the way teachers described the uses of pictures for pupils with special educational needs and others. Whereas class teachers usually described picture use in activity related terms, when speaking of their value to children with special educational needs they tended to shift to more developmentally related descriptions. This is taken as a reflection of a general tendency to think of special educational needs

in this way, rather than something peculiar to pictures.

Display emerged as a crucial area of picture use for virtually all the teachers in the study. It was the only area of picture use which figured largely in school policies, and one which most headteachers actively influenced. The value of display, like the value of pictures to infant education in general, is wholly accepted and largely unquestioned. It is also the locus of several contradictions, not least of which are those concerned with the purpose of display. Teachers placed a considerable emphasis upon the instructional, or information-giving, aspects of display. Yet direct observation revealed that most displays were mainly used decoratively, or at least the visible function of most material was decorative. It is possible to explain this discrepancy in terms of an ideological conflict, in that the idea of making decoration a major function can be thought of as illegitimate, or at least trivial, in the context of mainly cognitive aims. As with the word 'reward' discussed earlier so 'decoration' seemed to be an idea which teachers wished to avoid, being much more ready to talk about 'stimulation' when considering the general environmental influence of display. Many writers, for example, Brearley (1969), and Mays (1985) stress the way in which displays can support school subjects, placing an emphasis upon the instructional utility of them. However, others who begin from a more art based tradition, such as Corbin (1970) and Dixon (1974), do assign a high value to display as a beautifier of the environment. Phelps (1969) offers three major functions:

Material displayed in the classroom should have at least one of three functions - to enhance the appearance of the room, to interest and inform some or all of the children, or to be a reward for effort and achievement. (p.2)

When reporting themselves, teachers in the present study relegated the first and last of these and emphasised the second, whereas observation showed the

contrary. The apparent unwillingness to attribute much importance to the decorative role was seen at its most clear in the teachers' rejection of any suggestion that displays might be intended to have an important public relations function with parents and visitors. The idea that the pupils were the principal audience and that the primary purpose was instructional dominated. This is explainable in terms of the child centred rhetoric in tension with the emphasis upon the 'basics' reported in the survey. That these two can create a dilemma which may result in contradictions between intentions and practice has been discussed earlier.

A similar discrepancy was found in relation to the extent and manner of pupil participation in displays. Two things were generally reported which do not, on the face of it, seem to combine well in practice. On the one hand, teachers generally claimed that displays should be dynamically related to the work of the classroom with pupils having the highest level of involvement with them. On the other hand, they reported that the teacher's role included the actual presentation of the children's work. In practice the scope of 'presentation' seemed to be often expanded to a point where what could be still reasonably called pupils' work became debatable. The available literature does not help the resolution of this problem. Writers commonly extol the virtues of total child involvement in the display process, and deprecate teacher interference with pupil products (Dixon, 1974; Ridgway, 1976; Taylor, 1986). Yet the idea of standards, in the sense of a battery of sophisticated display criteria which are well beyond the capacities of young children, equally permeates the literature (Corbin, 1970; Dixon, 1974; Brown et al, 1973). From the present observations it is clear that where children have a major role in producing displays, that is to say actually doing the displaying, the result is not in Corbin's (1970) words:

orderly, harmonious, and beautiful. (p.1)

The teacher is left with the, perhaps insoluble, problem of trying to engage the pupils centrally in the display process, whilst attaining an end product which is acceptable to adults using sophisticated adult criteria for what constitutes orderliness and harmony. It is probably true to say that neither a coherent rationale nor practical examples, were met in the present study which offer acceptable solutions.

A point of remarkable consistency between what teachers said and did was found in the way that adult pictures, especially those in displays, conformed to the criteria articulated by teachers. The majority of pictures seen were photographically realistic, clear, colourful, and unambiguous (by adult standards). Although a good deal of work was abstract, or pattern, or vague, this was all children's work. This has already been discussed in terms of the way in which it seems to support an instructional view of function, but there may be a deeper implication when we consider aesthetic factors. In the classrooms observed in the study, it is possible to say that what was presented as adult work, whether the teacher's or other's, was often in marked contrast with the pupils' work. Possibly the most dominant feature of this contrast was that the adult work was realistic, in the sense of what Gibson (1954) called 'station points fidelity'. It showed a specific use of linear and aerial perspective, occlusion, texture gradients, and tonality which amount to one particular view of realism. It would not be at all surprising if children viewed this as the style to be emulated as the adult truth about proper pictures, and that this view of realism became the criterion which they would develop for good pictures; proper art looks like what it is supposed to be, or the more like a photograph a picture is, the better it is. It is doubtful whether any respected commentator on art in this, or any other, century would have approved this criterion. An

emphasis upon the informational aspects of pictures in the classroom accords perfectly well with the relatively slight emphasis upon the part that adult pictures can play in aesthetic development noted earlier. If indeed they conspire to produce a narrow view of artistic values, as does appear to be the case from classroom observation, then this brings with it the possibility of restricting aesthetic development. In the light of the importance of this possibility, the area is one which clearly recommends itself for further exploration.

The idea of teaching style as defined in this study did produce operationally valid sub-groups in terms of the value and uses applied to pictures. At one level this may appear to directly challenge the conclusions of Alexander (1984) and Stewart (1986) that what they term a dichotomous way of classifying teaching style, is not feasible. Clearly the features which characterised teaching style in the present study did both inter-correlate, and correlate with dependent variables, in a way which suggests that they represented real qualities in teachers which could be used to predict things about how they valued and used pictures. However, there is reason to suppose that, as a description of teaching style which might be used for other than research purposes, it is crude. There was, at least one example, from the school examples, of a teacher who managed to combine extremes of some of the scales into a perfectly coherent style of teaching. Yet the school examples also seemed to reveal that directiveness and types of planning were things that visibly differentiated the teachers observed. One may conclude that the scales used were useful as a research artifice, and probably deserve further development, but might be debateable in other contexts, say in evaluation of performance. In addition it is probably correct to claim that the description of teaching styles using bi-solar scales is something which will almost of necessity persist, since whether or not one can wholly justify the dichotomies in question, it is

fundamentally the way in which all comparisons are drawn. Hence, whether or not we agree with Stewart (1986) that it is divisive we are to some extent stuck with it, in that it is simply a manifestation of dimensional thinking. What is therefore of crucial importance is that the scales or dimensions thus employed are meaningful.

Teachers' intentions for the observed episodes in the school examples, were mainly couched in developmental terms, and evaluations normally did not match. Whilst any implications arising from this are complicated by the circumstance that teachers were encouraged to state outcomes, in one form or another, the general picture which emerges is one which tends to support Calderhead's (1984) view that teachers do not usually operate on a rational planning model. Matza's (1964) idea of 'drift' in which the discrepancy between intentions and criteria for evaluation may be accounted for by new observations, made during the teaching episode, may indeed justify some of the differences noted, but is not sufficient to account for all. Another feature of these sessions was the extent to which teachers and the researcher disagreed on what had actually happened in relation to the specified features observed. This may be almost entirely due to the additional opportunities afforded the non-participant observer, but is nonetheless a cause for concern in that there is pressure upon teachers to employ objectives based approaches in order to improve practice. This is especially so with regard to teaching children with special educational needs. One may see such approaches as counter productive unless the teacher is able to make sufficiently detailed observations of the process or outcomes (whichever the objectives are specified to). If, as the present study suggests, this requires a non-participant observer, at least sometimes, perhaps it is necessary to provide opportunities for this as part of the normal teaching context. Even if one allows for some possibilities in this direction arising from current trends to collaborative teaching, a

resource implication probably remains. In short it is possible to conclude that those who encourage teachers to adopt rational planning models, particularly those approaches which depend upon precisely specified behavioural objectives, should be prepared to also address the difficulties of participant observations.

One aim of the study was to explore the extent to which infant teachers are influenced by existing research work on pictorial literacy. For this purpose the findings of this research have been grouped under three headings, one minor and two major. First, is the small but largely conclusive work which looks at the pictorial preferences of children at different ages (see page 24). Second, is the extensive body of work which, on the one hand explores the way that the learning of pictorial material itself takes place, and on the other hand looks at the way in which pictures facilitate other kinds of learning. This includes a good deal of work which draws conclusions that are specifically directed to the techniques of classroom learning (see chapter one). Third, is an equally extensive body of work which traces the development of picture perception in infancy, showing that, whilst the recognition of pictures of familiar objects is an early acquisition, a wide range of other pictorial perceptual skills are gradually acquired over the infant and senior years (see page 25).

Work on children's preferences for pictures (De Cecco, 1974; Campbell, 1976; Myatt and Carter, 1979) agrees that young children seem to prefer pictures which are photographically realistic, clear, well detailed, and colourful. The teachers in the present study showed the same pattern, both by their statements of preference, and by the adult pictures that they selected for use in the classroom. Whether one can describe this agreement as the influence of research upon teachers is quite a different question. Indeed, there is every reason to suppose that it is not. Rather it appears

to be a direct expression of the teacher's perception of the value of pictures to the educational process. The dominating role assigned to pictures by the teachers in the study is as the vehicle of information to aid cognitive learning. Pictures are seen as surrogate in that they are a means, albeit second best, of experiencing a scene, and it is information about the scene which is largely used in the instructional process. If that is the case then it is not surprising that their preference will be for a style of picture which is highly mimetic.

Some of the extensive body of research on effective ways of learning with pictures offers recommendations for the classroom. A selection of these concerned with pictures in beginning reading books *was used as an indicator* of its influence (Denburg, 1976-1977; Willows, 1978; Lang and Solman, 1979). The teacher's responses, both to direct questioning and via observation of practice, indicated that not only were they not influenced by these ideas, but that when confronted with them they rejected them. It is possible that this rejection can be traced to two factors. First, that teachers have a largely uncritical acceptance of pictures as learning aids and these recommendations challenge the unconditional value of pictures. Second, that the research defines 'reading' sufficiently differently from teachers to make the findings, if not irrelevant, perhaps oblique to the classroom. In the research in question reading improvement is taken to be measured increase in sight vocabulary. There is reason to suppose that the teachers in the present study saw reading in a more holistic way than this, being focussed as much upon the process of engaging with it, as with the outcome in terms of sight vocabulary. A consequence of this could be that when faced with recommendations, such as Willow's (1978) that initial readers be pictureless, they believed that this would reduce the enjoyment or richness of the activity, hence could have no ultimately beneficial effect. It seems probable that both of these factors had a part to play in the rejection.

Another way of judging the impact of research upon practice was to examine the literature which offered prescriptions for infant teaching. There is no shortage of this in both book and magazine form. The main conclusion here is that little is said about picture use beyond wall display and that what is said about wall display does not seem to draw upon picture research. A good current example is to be found in Keroy and Tollit (1987), who articulate criteria for 'nice' display based around newness, neatness, traditional harmony and balance criteria, and a sufficiency of children's work. In emphasising the prominent part which teacher's work plays in the display they exacerbate the control dilemma observed in the study, and make no reference to the perceptual developmental needs of pupils. As for many teachers in the study, the child's ability to interpret pictures and diagrams is taken as a given, with no attention directed to its active development. In this respect they are perfectly representative of this particular 'How to be an infant teacher' type of literature.

The impact upon the school and classroom of developmental research into the acquisition of picture perception skills over infancy received particular attention in the study. This might have made itself evident in a number of ways, teachers' perceptions of children's abilities, their criteria for picture selection, the pictorial demands made upon children, and the extent to which teachers sought information about the pictorial interpretation skills of individual pupils. There was some variation with age in teachers' reports of their pupils' pictorial abilities, but this was slight and at considerable variance with the pattern of development established by research. Even so the trend is sufficiently clear to say that teachers' observation supports the general notion of the development of pictorial perceptual skills over the infant years. This is, of course, no indication that research has had an impact upon teachers, but merely that they have observed the same phenomenon.

The teachers' criteria for the selection of pictures did not appear to differ for teachers of children of different ages. There was some variation in what was thought to be appropriate content, for example pictures of nursery rhymes for younger children, but none was visible in terms of those features identified by research as subject to developmental variation. Similarly no differences in the pictures seen in classrooms, or the way in which they were used indicated a recognition of pictorial development. Such differences as there were tended to be of three kinds, the presence of letter and number friezes, the type of labelling, and some commercial work specifically produced for younger children tended towards a simple, locally coloured and less detailed style, but even this was quite rare. None of these reflect an awareness of pictorial research. Observations of specific teaching episodes also failed to uncover any differences in this respect. The pictures chosen, and the implied expectation of picture interpretation ability did not appear to vary with the age of the children, although the language used and expected did. In this context, it is not at all surprising that no examples were seen of activities designed either to develop picture perception skills, or to reveal children's abilities in this respect. When teachers spoke of the difficulties experienced by children in picture oriented activities they were usually attributed to linguistic, cognitive, or attentional causes, mention of possible problems in picture interpretation were rare. In short, the evidence of this study indicates that infant teachers do not recognise the developmental pattern of picture perception skills indicated by research. A clear implication of this, which is largely supported by what was seen, is the danger that tasks will be mismatched in this respect; that teachers expectations will be inappropriate and errors wrongly attributed. Taken in the context of the primacy of the early years to subsequent relationships with school learning this could have serious implications.

Research methods

The broad pattern of research methods employed in the study, survey complemented by school examples initially informed by the exploratory groups, seems to have been largely appropriate to its aims. The precise emphasis is open to question in relation to the extent to which different aims were realised. An extension of the more ethnographic aspects of the school examples might well have been more illuminative of classroom techniques and terminology, and what Cohen and Manion (1981) term 'indexicality', whereas a more substantial survey might have strengthened the generalisability of the results. As it stands, and given that every point in the analysis would have been strengthened by more information, the balance has been adequate to the purpose and supports the view of Lacey (1976) and Bassey (1984) that the combination of quantitative and qualitative approaches within a single study can be mutually strengthening.

The use of the exploratory group to set the scene for other data collection does appear to have been valuable, in the light of the aims of the study, and positive feedback on the survey design. It is difficult to see how the survey design might otherwise have been informed so as to uncover the teachers' perspective. However, in retrospect two improvements to this stage are possible. First, the process could have been usefully extended to explore some of the issues in greater depth before moving to the survey stage, for example the question of general teaching style. Second, a more sensitive treatment of the observed differences between classteachers and headteachers, particularly in respect to the question of contextual influences or picture use, might have been achieved if a separate exploratory group composed of headteachers had also been used.

A technique which deserves particular mention is the typology of picture use (see page 157). It is justified by the inability of existing typologies (Magne and Parknas, 1963; Fleming, 1967; Standing, 1971; Mandler and Johnson, 1976; Duchastel, 1978; Sigel, 1978; Newton, 1984) to meet the descriptive needs of the school examples. This should not be seen as a shortcoming with these typologies, since none of them was designed to have precisely this function. The present typology arose from the results of the exploratory group and survey. It was largely successful in providing a framework for analysing observations, and relating them to teachers' reports and opinions, although refinement is indicated with regard to its identification of affective functions, which whilst not frequent in the present study are probably more various than the typology allows. In general terms the value of some sort of typology in order to focus the analysis of descriptive studies is considerable. For this reason the further testing and refinement of it might result in a useful instrument for other descriptive studies of the school example kind.

Something similar might be said of the display observation schedule. The intention to provide an instrument capable of describing, and to some extent quantifying, the characteristics of displays was substantially realised. But, as it stands, the schedule is far from free of possible subjective bias in its use, or practical problems in applying it. Although the means of generating the schedule - systemic analysis (Bliss et al, 1983) provided an effective vehicle for utilising the teacher's comments in its design, it did lead to a great many categories, making it unwieldy to manage for anything but an extended observation. However, its present use and analysis did reveal ways in which it can be reduced without corresponding reduction in sensitivity. Clearly such a schedule has a value in studies of the present sort, but there are other contexts in which a way of accurately describing display may be of value too. An important observation to arise from the

study was that the link between display and teaching approach was a subtle one, and that the notion that simple criteria can characterise 'good' display is at best unfounded and at worst dangerous. For example the sort of criteria enumerated by Brown et al (1973) or Keroy and Tollit (1987) which are reasonably representative of an influential area of literature can be easily and impressionistically observed, but what is suggested here is that even as indicators of 'good' display, let alone the link with effective teaching in general, they are unreliable. This only assumes importance in that people do sometimes make judgements on the basis of display. Initial training courses often have it among teaching practice criteria, and it is quite likely that it is seen as indicating the good teacher by a much wider audience. That display is an important role of the teacher and that it may be indicative of other professional qualities is not being disputed, only that the relationship is much more complex than is commonly thought, and the general impression of a display will not do. At a time when the idea of teacher appraisal is more than an academic exercise (D.E.S., 1985) anything which might be thought to indicate effective teaching must be open to rigorous examination. In as much as display is commonly thought to be one of these, both the criteria employed in assessing it and the accuracy of the assessment, may be in question. Although the existing schedule would not be appropriate to this purpose it may form a basis for the development of an instrument which could avoid the most subjective excesses of first impressions.

This study set out to illuminate teachers' values and uses for pictures in the classroom and as such the most important conclusions are in the detail of the findings, but three general conclusions are worth emphasising. First, that whilst teachers hold a high value for pictures in the classroom this is largely uncritical and usually fails to recognise important developmental patterns indicated by research. Second, that given the

position of importance assigned to pictures in the infant school relatively little effort has gone into developing specific and appropriate pedagogical techniques for them. Finally, that further development along either of these lines will be facilitated by further research which attempts to make the teachers perspective central in exploring the complexity of teaching and learning with pictures.

APPENDIX

SECTION ONE: THE EXPLORATORY GROUP

RB/YW

9th May 1985.

Dear

As promised I write to remind you of the meeting of the Picture Research Group on Tuesday 14th at 4.15. This time we will meet in N 2 which you will get to if you turn right on entering Neville House, then left at the end of a short passage and N 2 is directly in front of you at the end of a rather longer passage.

I enclose some of the things which arose from our last meeting for you to look at and comment on. Please look at the lists critically is there something which doesn't belong? or is something missing from them? and we can pick up your comments on the 14th. As usual please write any comments on the record of the last meeting too.

Look forward to seeing you.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Ron Brown", with a horizontal line underneath the name.

Ron Brown.

Ref: RB/CRS

4th June 1985

Dear

I enclose a report of the last meeting. As usual I will be very pleased to have any corrections, or comments of any sort. However, not as usual, I will have to depend upon you returning the report to me by post with your comments added.

Can I take this opportunity to thank you for the time and effort you have given to helping me in the preparation of the research. Certainly the group meetings have been of greater value than I ever imagined in helping me to know what is professionally relevant to the teacher. This has enabled me to make decisions about the content and methods of the research which would not have been possible in any other way.

As I mentioned at the last meeting, I will be sending you copies of the draft questionnaire for comment before I call it ready to send out.

Thank you again.

Yours sincerely,

RON BROWN.

RB/CRT

28th June 1985

Dear

You may remember that at our last meeting I said that I would be sending out the first draft of the questionnaires for comments, before they are used in the pilot survey.

I enclose (I hope) enough so that you can pass them to colleagues too. Please don't pass them to colleagues in other schools, since this might cause difficulties on the full scale survey later - just inside your school.

Will you ask people (a) to try to complete them straight, (b) add comments against any questions which they couldn't understand or had difficulty with of any sort. Will you then collect them in and send them back to me by 10th July. I know that this is pushing it a bit, but there is always a rush on in research. Don't forget your own copy with its comments too. Maybe the Head would care to comment on one as well. Can you distinguish yours and the Head's from those of other colleagues.

Thanks.

Yours sincerely,

RON BROWN,
Principal Lecturer in
Special Needs.

Mr. R. Brown ext 278

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 1)

SESSION 1

Meeting of Picture Research Method Group
Tuesday, 29th January 1985

Report

Comments

Present : Irene Cochrane, Carol Connolly, Mary Olliveire,
Megan Eilbeck, Eva Livesey, Ron Brown.

Apologies received from: Pat Holmes, Jayn Fantarrow,
Pauline Gatenby.

The meeting began at 4.15 in W.C.R.

1. The meeting began by the group introducing themselves with reference to the age range taught.

2. After brief discussion the group agreed that although eight was a good size, it would be valuable to have a couple of nursery teachers present. R.B. agreed to make appropriate contacts.

3. R.B. outlined what he felt was the purpose of the group in the following way :-
(a) Referring to a review of research on the value of pictures in the early years of schooling.
(b) Claiming that this review reveals an imbalance in that almost all the work has an origin outside the school.
(c) Claiming that there existed at present very little methodology to enable studies to effectively work from the teacher's perspective.
(d) Enumerating a range of possible approaches.
(e) Finally presenting to the group the view that the task was to arrive at answers which would suggest a methodology for a large scale study, which illuminated the following questions :-
1. What questions should be asked?
2. How should they be asked?
3. How should the answers be analysed?
4. What sort of conclusions will be possible?

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 1)

- 2 -

4. In general the group agreed that this was the task to be undertaken, although it was clearly felt that it was a tall order. However, they would have a go at it.

5. R.B. suggested that self-observation had some distinct difficulties in the classroom and asked the group to undertake a task to get things going. The task involved selecting a recent occasion when a picture was used in a learning episode and making notes on it in the following way:-

- (a) What were the intentions of the learning episode?
- (b) Why was a picture used?
- (c) How was it chosen?
- (d) How was it presented?
- (e) How effective did they feel it was in terms of (a)?
- (f) How did they arrive at the evaluation above (e)?

6. When the group had completed this task, the replies were taken in order and lead to the following points being made in general discussion :

- (a) There was agreement that the process of teaching young children was often much more complex than could be easily articulated.
- (b) Mary initially observed and the remainder of the group agreed that the ability to use a picture as though it were the thing it represents is a detectable acquisition over the infant years in which a clearly evident leap is made.
- (c) There is a belief which is fostered from above that the use of many pictures represents good practice which is likely to influence teachers.
- (d) Pictures can in practice have several quite separate functions in learning e.g. the function in Megan's learning episode was quite different from that for Carol and Irene. However, in each case they could be regarded as an essential part of the learning process.
- (e) Irene raised the question of whether pictures were effective communication before the child could read. The group agreed that they were. Eva and Mary gave examples which support a view that with very young schoolchildren the initial presentation, to have sufficient impact for it to operate as a communication, must be accompanied by verbal explanation.

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 1)

- 3 -

6. (f) There was some discussion about the value of pictures as stimulators of discussion. The group agreed that they were valuable in this respect, but it was clear that there is a lot more to examine in relation to this function.

7. R.B. suggested two activities before the next meeting, and the teachers agreed to do them. They were :

(a) Consider the same headings as (5) above in relation to a teaching episode carried out during the two weeks, and make notes. This differs from the activity undertaken at the meeting in that the intentions can be considered before the episode, the teacher can deliberately attempt to observe the teaching interaction at the time of carrying it out, and the evaluation aspects can be conducted both at the time and afterwards. This activity may influence the group's views on a number of facets of the task reported in (5).

(b) List and report what are the sources of pictures open to the teachers. This will include mention of the sort of range of materials, access systems and so on.

8. The group agreed to meet again on Tuesday, 12 March, with a change of venue to Committee Room One.

RON BROWN

- 0 -

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 4)

Session 4 Meeting of Picture Research Method Group

Tuesday, 20th March 1985

Present: Geoff Short
 Irene Cochrane
 Megan Gilbeck
 Eva Livesey
 Gillian Millar
 Joan Lawson
 Doreen Maddison

Apologies: Carol Connelly, Mary Olliveire, Jayn Fantarrow,
 Pauline Gatenby.

Meeting began at 4.15 in CR1.

	<u>Comments</u>
1. It was decided to commence the meeting in the now usual way, by going over the report of the previous meeting to check its accuracy and possibly extend points in terms of thoughts which group members had had on particular topics since the last meeting.	
(a) The first point which arose related to the comment in the previous report about pictures being used to learn about pictures themselves.	
Joan - felt that pictures could be used to help children learn about themselves.	
Doreen - agreed with this and gave an example which she felt was an example of a child finding a therapeutic value in making pictures (3 year old).	
Gillian - Supported this from the point of view of picture viewing rather than picture making. Children quite often returned to a familiar picture book in a way which suggested that it offered some feeling of security.	
Ron - asked whether this was principally the pictures or the story that the child found comforting.	
Doreen - said that in her view the pictures were most important in this respect. At 3 years old children had difficulty in absorbing a story, but seemed to be facinated by some pictures.	
The group - gave examples from their memory of themselves as children which bore out this notion (that pictures have a greater impact than spoken stories). Almost all members could remember being captivated by certain pictures as young children.	
 cont'd

- 9 -

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 4)

- 2 -

Comments

(b) This appeared to lead the discussion into the question of the part pictures play in the development of imagination.

Gillian - gave it as her opinion that the development of imagination was to some extent dependent upon the opportunity to see examples of imaginative thinking, which could best be provided by pictures. In her experience, there was a distinct correlation between the number of pictures shown to children on any topic and the level of imagination they showed in their own work.

Ron - suggested that pictures could provide imagery which was impossible otherwise.

Irene - suggested that the extent to which a picture was likely to stimulate the child's imagination might be taken as a criterion for selection of pictures for use in the classroom.

(c) This led into the more generalised point that pictures could offer an experience which was not available elsewhere, and could be used to point out significant aspects of the child's familiar environment.

Megan - gave an example of using a safety poster to do this.

Ron - suggested that animated pictures, e.g. T.V., are perhaps better in this respect.

Joan - gave it as her opinion that making pictures gave a greater environmental awareness because of the need to arrive at decisions about how to represent the things seen. She gave an example of collage work that seemed to point this up.

(d) The point in the previous report relating to the private school using a bare classroom to produce a restful atmosphere produced a number of strongly expressed responses from group members.

The group - as a whole felt that they would all dislike working in a pictureless environment.

Joan - regarded putting up children's work on the walls as allowing them to make a mark or personalise where they 'live'.

The whole group - without any exception, felt that one of the first things they would do in a classroom would be to put up pictures. Almost as an automatic response.

..... cont'd

- 10 -

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 4)

- 3 -

Comments

- Gillian - reminded the group that the quality and amount of displays was an important criteria for success in teaching practice at college.
- Joan - had known teachers who had less on their walls and had taken this as an indication of their professional involvement.
- (e) At this point, to sharpen the discussion on what is important about pictures in the classroom, Ron asked the group to imagine that they could use no pictures at all and say what part of the teaching/learning would be most affected by it.
- Joan - The core.
- Irene - The greatest loss would be in not using the pictures which the child had produced, since this would lose a valuable tool for building self esteem. She recalled a teacher who used few pictures and gave it as her opinion that the class in question behaved as though they were under-stimulated.
- The group - felt that one important effect would be that teachers felt less happy.
- Megan) - Mentioned the case of a teacher who, whilst
Eva) claiming to be unartistic, could make a beautiful wall display.
- Ron - suggested that the absence of pictures might influence the method and effectiveness of some specific areas of learning such as vocabulary acquisition.
- Doreen - suggested that with young children (nursery), it would make communication, and even organisation, difficult since pictures were used instead of written words to carry messages such as whose coat peg, or drawer, this is. The absence of pictures would deny their value in the growth of classification skills and other activities aimed at cognitive growth.
- Irene - mentioned that something of the same was true of reception children in that they used picture labelling in picture dictionaries.
- Joan - said that pictures were the earliest form of communication.
- Gillian - children can recognise pictures when they first come to school.
- Joan - pictures can be recognised before words (written).

..... cont'd

- 11 -

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 4)

- 4 -

Comments

2. At this point, the record of the previous meeting had been covered and agreed, except for alterations to one or two of the names to whom ideas had been attributed.

Ron - asked the group to consider another aspect of the use of pictures in teaching, using them as reinforcement or reward. An example was given (Lloyd 1977).

Eva - Number jigsaws reward completion with a picture.

Irene - Uses a pattern to reinforce a game more or less following the idea of Lloyd.

Ron - recalled using pictures as a reward in the reading of a story.

Eva - sometimes used pictures in the same way.

Doreen - noted that pictures seem to have become more important to stories over the years. Today children needed the pictures in order to retain their attention, maybe T.V. was causing this.

Ron - thought that maybe the quality of pictures in children's books had improved over the period.

The group - agreed that they had, and felt that T.V. might be causing changes in what children demand of pictorial accompaniment to verbal work.

Doreen - reinforced her view that children have changed in this respect.

The group - felt that children gained much imagery from T.V.

3. Ron asked the group whether using the 'All in Picture' books had shown anything which bore on previous discussions.

Joan - gave the book to one child who used it at home. The mother reported that she thought that it contained ideas like the old 11+. She observed that the child didn't attempt some of the items and the mother was unable to say why this should be.

Eva - gave the book to two children (7 year olds). One was a 'concentrator' and the other a 'non-concentrator'. They both worked through the book page by page but the activity seemed to polarise the differences in levels of concentration between the two children.

Megan - found that the children she gave them too became distressed when they couldn't get them right (7 year olds). She had used Book 2 which she felt was more difficult.

..... cont'd

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 4)

Comments

- Gillian - asked whether the children in question had been told what to do.
- Megan - replied that they had.
- Irene - found that her children (6 year olds) liked the dotted pictures but had difficulty with the more demanding matching and discrimination.
- Doreen - felt that the pictures were too small for her children (3-4 year olds) and also too compacted on the page.
- Gillian - agreed that the size of picture appropriate to children does vary with age, in terms of what is needed to enable them to concentrate on it.

4. The question of colour as an aid to helping children concentrate on a picture arose.

- Doreen - gave an example of colouring part of the NFER picture test A and finding that her nursery children scored higher on it.
- Joan - colour gives shape. That is to say, the actual forms in a drawing are clearer to see when coloured.
- Ron - asked whether in their experience young children really preferred strong primary colours, as the norm that toy manufacturers might suggest, or whether they had evidence that some young children appreciated subtle colours.
- The group - gave no examples of young children being particularly taken with subtle colour.
- Gillian - gave an example of a child much excited by the process of colour mixing in itself.
- The group - all agreed that this was a common experience.
- Joan - gave an example of a girl producing a particular colour which all the children in the group thought nice and all used it in their painting.
- Doreen - confirmed that very young children (3 years) seemed to love colour mixing for its own sake.
- Irene - colour is often a prominent part of language work.
- Gillian - colour can be such an important part of the infant classroom that colour-blindness must be a considerable handicap.
- The group - all used various types of colour coding and agreed the problem of the colour blind child.

..... cont'd

EXAMPLE OF EXPLORATORY GROUP MEETING RECORDS

(SESSION 4)

- 6 -

Comments

5. At this point the question of the impact of school in terms of perception and picture making was raised.

Joan - gave an example of a girl whose drawings of people showed considerable observation of important features reverting to a 'tadpole' representation after she had started school.

The group - agreed that early drawings seemed to show little observation and were more a formula - e.g. standard form for houses.

Ron - raised the question of the way in which most young children represent skies as a band at the top of the picture.

The group - felt that this was an example of what the child 'knows' conflicting with what they see.

Joan - acknowledged that there was a tendency to influence children's work in terms of what would look good on the wall.

6. The ideas of Holliday and others regarding the distracting effect of pictures in early vocabulary acquisition were introduced.

The group - on the whole tended to agree that in this context *pictures could be distracting.*

7. The group agreed to meet again after the holiday. In the meantime Ron would draw together some of the ideas which had come from the meetings and from the writing and circulate them so that the group could comment upon them.

DATE OF NEXT MEETING - Tuesday, 11th May 4.15 p.m. West Common Room.

RB/CRS
17th April 1985

EXAMPLES OF TEACHERS WRITTEN ACCOUNTS OF A TEACHING EPISODE USING PICTURES

(STAGE 1)

Eva

Activity 1

1. Intentions.
 2. Why picture important to it.
 3. How was picture chosen.
 4. Briefly how was it presented?
 5. How effective was it?
 6. How do you arrive at these last conclusions?
-
1. To stimulate discussion begin talk about - enjoying winter - picture used snowscene of children sledging - springboard for further discussion of subject.
 2. Focussed children's attention - something they could see which reminded them of something they do.
 3. From group of similar pictures this one was very clear and the subjects in picture looked as though they were enjoying themselves - leading to what sort of activities children enjoy in winter.
 4. Mounted on art easel in quiet corner - with children seated comfortably on carpet round in cosy informal chat.
 5. Quite effective - we had quite a lot of interesting discussion from even slower children - followed by own pictures.
 6. Felt that poorer children benefitted from visual stimulus and subsequent writing and pictures from children were pleasing.

Carol

Activity 1

Pictures from a "Ladybird - Book of Pets"

Intentions

Started with poem - Octopus eats all a child's pets. Introduction to "caring for pets".

Why was picture important?

Some children had experienced animals, others had not. Talk about what they were like, how to care for them, Reality teaching to the fantasy. We did not have actual animals - so the representation was necessary.

How was picture chosen?

Availability.

How was it presented?

Use of helper - talking about picture with individual children - following general class discussion. Children were then talking about their pets rather than those in pictures.

How effective was it?

Seeing as the aim was to represent poem as our own picture - use was effective.

How do you arrive at that conclusion?

Picture we painted together looks good and represents the beginning of the poem.

EXAMPLES OF TEACHERS' WRITTEN ACCOUNTS OF A TEACHING EPISODE USING PICTURES

(STAGE 1)

Irene

Activity 1

1. To draw children's attention to Road Safety and the need to take care whilst crossing the road, etc. ('Caring' being present school theme).
2. Picture showed children in dangerous situation, e.g. crossing behind a parked car - draws attention to danger. Other pictures showed correct place to cross road - therefore offered instructions. More likely to turn heads in corridor.
3. Content of picture as stated above and also colour for younger children and not too much writing. Pictures also chosen for junior children referred specifically to taking care with bikes on road.
4. Corridor display area.

Megan

Activity 1

1. Picture of robins as stimulus for creative and descriptive writing and pictures.
2. Make sure all children were sure of proportion and detailed appearance.
3. True photographs of robins (nesting, winter habitat, etc.).
4. Series of bird books with pictures displayed in quiet area for children to handle.
5. Children came up with detailed writing and illustrations.
6. Were able to pass information on by reading written work in Assembly.

Mary

Activity 1

1. Learning intention.
 2. Why this picture important.
 3. How it was chosen.
 4. How it was presented.
 5. How effective was it?
 6. How did you arrive at 5?
-
1. Starting point for work on different types of vehicles - Roads are for traffic.
 2. The car most familiar vehicle.
 3. Chosen from Road Safety Education pack because of 1.
 4. Clipped onto board, a child's blackboard used for work in a class group. (I displayed it and left it there while I did registration and then asked what they saw).
 5. Very.
 6. Lots of discussion, sharing experiences. Parts of car identified (the picture had parts labelled).
Discussed the working of the car, what indicator lights were for, etc.
Number - how many wheels, lights.
Vocabulary widened.
I had thought their drawings might be a little more detailed but weren't.

(STAGE 2)

Carol

Activity 2

Picture

Quite a detailed picture of a pet shop window. A man and two children looking at the display of animals from the inside of the shop with the shop keeper in the background. A small dog looking into the window from outside the shop. A display of budgies, canaries, a parrot, fish, guinea-pigs, rats, rabbits, kittens and tortoises.

The intention is to introduce a general art and craft session. I want the children to absorb enough detail from the picture and subsequent discussion to be able to work by themselves so that I can attempt some craft work with one group of children.

We could just talk about pets, but a detailed picture should focus their attention.

I chose this particular picture because it was the most detailed one that I could find.

We will adopt our usual procedure. All the children sitting on the carpet with the picture clipped to an easel and I hope a sense of anticipation because of the various activities prepared on the tables. This will also be first thing in the morning which is usually "work time" which should add to the anticipation.

The discussion was good and moved away from the picture to pets in general. The work produced by the children was good - very different, lots of colour and detail. Three children even attempted to copy the picture in paint. I managed to produce 27 cardboard dogs without too much strain on my nerves so I think we could call the choice of picture and whole episode successful.

I. C

Activity 2

1. Using a picture in classroom.

- (a) Intentions to stimulate children to write about the necessity to wear warm clothes in Winter (as an ongoing Science theme).
- (b) *I hoped the picture would stimulate discussion, develop language and be a direct aid to show suitable clothing. The picture would remain in classroom throughout writing exercise providing a constant aid if necessary.*
- (c) It was chosen because it showed two boys very well dressed for the cold wearing hats, scarves, gloves, etc. and provided the children with the vocabulary I anticipated 'drawing' from them.
- (d) Mounted on an easel which I placed on carpet - the 'quiet area' of classroom. Asked children to look at picture closely and think about what they saw.
- (e) Effective or not? The children first commented on the bikes and the children getting ready for a ride. (Obvious I suppose after event - not obvious before!) Commented on 'getting dressed for winter' secondly. That observation led a string of further comments when I asked - what makes you think that?

Children stated that they were wearing wooly hats, etc. as I hoped.

They went on to say that the boys must be going somewhere - Langdale Way - to the fields - shops - to the farm and dwelt on this aspect for some time. (I had not predicted this response).

Children also observed (after prompting) that it can be cold without the presence of snow.

I found it useful to write children's comments down on scrap paper to refer back to. Children's written work mainly consisted of 'I am wearing warm clothes' as opposed to referring to specific items.

- 17 -

EXAMPLES OF TEACHERS' WRITTEN ACCOUNTS OF A TEACHING EPISODE USING PICTURES

(STAGE 2)

Mary

Activity 2

1. Learning intention - Care on roads. To identify different situation whereby the children can apply the road safety rules we have already talked about.

To reinforce points made before - and emphasise again pavements are for people to walk on - roads are for cars.

2. This picture used to bring a street situation into the classroom.

3. (i) Picture chosen because it illustrates many of the points already talked about - and some we haven't.
(ii) It illustrates both good and bad habits. Children may spot new situations for themselves.
(iii) Lively busy street scene may stimulate thoughts in other areas not just road safety - village life, town and traffic.
(iv) May get interesting drawing as a result - more going on.

4. Presented

Because picture not quite as big as I would have liked - stuck onto large white sheet of paper - clipped to small blackboard - then asked what they thought the picture was about and why I had put that picture there?

Answer - to look at _____

5. First children named different objects in the picture - everyone chipping in.

One boy described one incident within the picture - this prompted more - all things one shouldn't do.

Had to ask them to point out the good things - the things which would ensure our safety on the roads.

Danger really appealed to them - were interested.

Went off the point a couple of times - had to bring them back to the picture and what it was about by asking questions.

6. Evaluation - experiences shared road safety points made again and new ones brought to children's attention - by the children themselves. Children able to recognise dangers themselves.

A group of children drew road/street pictures - interesting as more detail was added.

However, they did pick out and draw about only one incident.

Children's drawings reflected the way they looked at the picture - taking one aspect rather than a overall view.

Stories interesting because of variety - very few drew about the same thing (most unusual really).

EXAMPLES OF TEACHERS' WRITTEN ACCOUNTS OF A TEACHING EPISODE USING PICTURES

(STAGE 2)

Eva

Activity 2

1. Gay Way Introboks (Sequence of pictures) Red Pig.
 - (a) Interest group in characters of Gay Way Red Books.
 - (b) Make them aware of relation of one character to another.
 - (c) See if they can follow sequence of events and say why they happened.
 - (d) Improve vocabulary with questions about various pictures.

2. (a) Small group at desk - myself holding up book.
 - (b) Read individual words of first few pages.
 - (c) Extend story, e.g. why are fox and dog looking at each other in that way? What do you think will happen next?
 - (d) Improve vocabulary - how does pig feel when paint falls on him?

(Answers - mad. Anybody know another word for mad? - Angry, vexed).

Do you think he felt angry straightaway. What do you think he felt at first? Remember he was lying asleep when it happened.

Answers - Wet and sticky.
Anything else? - a bit scared.
Why? - Answer - because he didn't know what it was.
Yes. He was woken up by paint splashing on him. - Imagine if you were asleep and somebody spilled paint all over you.
What would you feel when you opened your eyes? - Would you feel sad? Yes. - What else?
You would get a surprise? - Yes - Would it be a nice surprise? - No Nasty - Can you think of a word for a nasty surprise. Answer - He got a shock

So if he got a shock he was? Shocked.

Conclusions

Much increased interest in Actual Red Book. Increased Vocabulary.

Megan

Activity 2

Picture - The Village (Child Ed.)

1. Intentions

To promote conversation and discussion or compare with our own village of Shotton, with a view to pictures and written work about latter.
2. Importance of picture

This was needed to make them think about their own surroundings and volunteer information.
3. Choice

For its simplicity of line and colour. The coverage of buildings and people and other things was good and related to our own village.
4. Presentation

Pinned to blackboard and children sat around to talk.
5. Effective

Children talked a great deal about picture and then we found that in Shotton we had more than illustration village.
6. Conclusion

It made children discuss with each other what we had in our area. They contradicted each other and reminded each other about the area.

EXAMPLES OF TEACHERS' WRITTEN LISTS OF PICTORIAL RESOURCES

Sources of pictures

Road Safety.
School Dental Service.
R.S.P.C.A. and Pedigree dog food.
Charts and pictures on pets - Tudor Crisp packets.
School collection.
Personal collection.
Child Education pictures.
Posters and wrapping paper.
Museum service.
Postcards.

Resources

1. Central School Fund of pictures.
2. Private collection of pictures - amassed over the years.
3. Road Safety pictures.
4. County Museum Service.
5. Child Ed. Pictures.
6. Posters and wrapping paper.
7. Christmas cards.
8. Postcards - bought on School Visits National Trust, etc.
9. Books.

Picture sources

School store.
Magazines.
Road Education Safety Project.
Drawing my own.

Common source of pictures at school. Mainly found in paper cupboard along corridor as a central supply all teachers can use.

There is a similar source in another part of School but are very Junior orientated.

Have a small personal supply of my own in classroom and at home which I have collected over the years.

I collect old magazines and catalogues also for children to cut out - I vet pictures first before children choose from my selection.

Picture resources

1. Drawer full of pictures covering wide range of subjects - shared among staff as and when necessary.
2. I had one year 'floating' rather than class teaching and used some of the time generated to make an alphabetical file of small pictures which is useful but could benefit now from some updating.

EXAMPLES OF TEACHERS' WRITTEN NOTES ON STORAGE AND CLASSIFICATION OF PICTURES

STORAGE, CLASSIFICATION AND RETRIEVAL

Pictures divided into topics stored on large wooden shelves in fitted cupboard, in sugar paper folders where possible.

1. Seasons - Spring, Summer, Autumn and Winter.
2. Festivals - Easter, Harvest and Christmas.
3. Fictional stories, illustrations.
4. Scripture and Bible pictures.
5. Language Aids and Conversation Aids - the latter being the actual title of a set of pictures.
6. Number Aids.
7. Individual topics, eg. Transport, Houses, Tame Animals, Wild Animals, etc.
8. Road Safety.

Pictures Available

1. Child Ed. pictures.
2. Magazines, eg. Royal Family Pictures, Flowers Animals, etc.
3. Publisher's Sets of Photographs and Pictures, eg. Philip and Tacey Conversation Aids, Nature Pictures.
4. Posters, eg. Paddington Bear, Pets, etc.
5. Christmas Cards and Postcards.
6. Pictures cut out of old or condemned books.
7. Framed pictures on loan from Museum Service.
8. Pictures either bought from school fund, or brought by individual members of staff.

Eva

RETRIEVAL OF PICTURES

Nature Topics divided into seasons for easy access.

Spring -> Easter.

Summer -> Seaside -> Picnics -> Fayres -> Holidays.

Autumn -> Harvest.

Winter -> Christmas.

Health Education -> Dentists.

Road Safety.

General Topics -> Stories -> Rhymes.

Old Testament.

New Testament.

EXAMPLES OF TEACHERS' WRITTEN COMMENTS ON WALL DISPLAY

C.A.

How would you classify wall displays in a room? How are pictures being used? Variety of different purposes. Describe way you use pictures on classroom wall?

Amount of display space:

1 x 6 m wall
3 x 2 m panels
1-2 x 1½ m corner wall
1 3 x 1 m panel

Commercial 'poster' type pictures

1 reproduction from 'Art and Craft' April, 1984. Henri Rousseau "Tropical storm with a tiger".

Used as:- stimulation for discussion on camouflage - leading to protection of animals from enemies and danger to them from men.

Commercial 'non-poster' type pictures

26 small pictures from books, magazines, one photograph to form a wall alphabet and wall dictionary. These are carefully mounted and are a permanent visual aid.

A selection of magazine and book illustrations of things that begin with 'o' mounted on a display board as a background to this week's sound table. This display changes every week.

Children's 'free' art work

None at the moment.

Children's 'directed' art work

Five large pictures of pets - painted after the children looked at pictures in a book. These are large because I wanted the display to fill a large wall.

Purpose: To illustrate the first four lines of a poem. They could be called 'reading aids'. They also brighten up a dull area.

Eleven children's paintings of threatened animals, again painted after they looked at pictures and discussed the pictures with an adult, as part of our conservation theme. The size was determined by the fact that we needed them as illustrations for our class assembly. They could also be described as reading aids as the class regularly read the captions belonging to each picture.

Other picture sources

Simple commercial wooden pictures used daily as part of a weather chart - purpose: observation and reading.

Two simple, clearly illustrated books of frogs and tadpoles that can be watched with the actual progress of our frogspawn into frogs. Purpose: simple scientific recording.

I. C.

Wall Displays

Children's own work - pictures, written work on the school theme; caring. We are looking at 'caring for animals and pets' - children have all painted a picture and are mounted in classroom. Vocabulary words are also mounted. Warm things to wear in winter display - children drew own pictures and labels.

All children made a junk model of own choice and these are displayed and labelled.

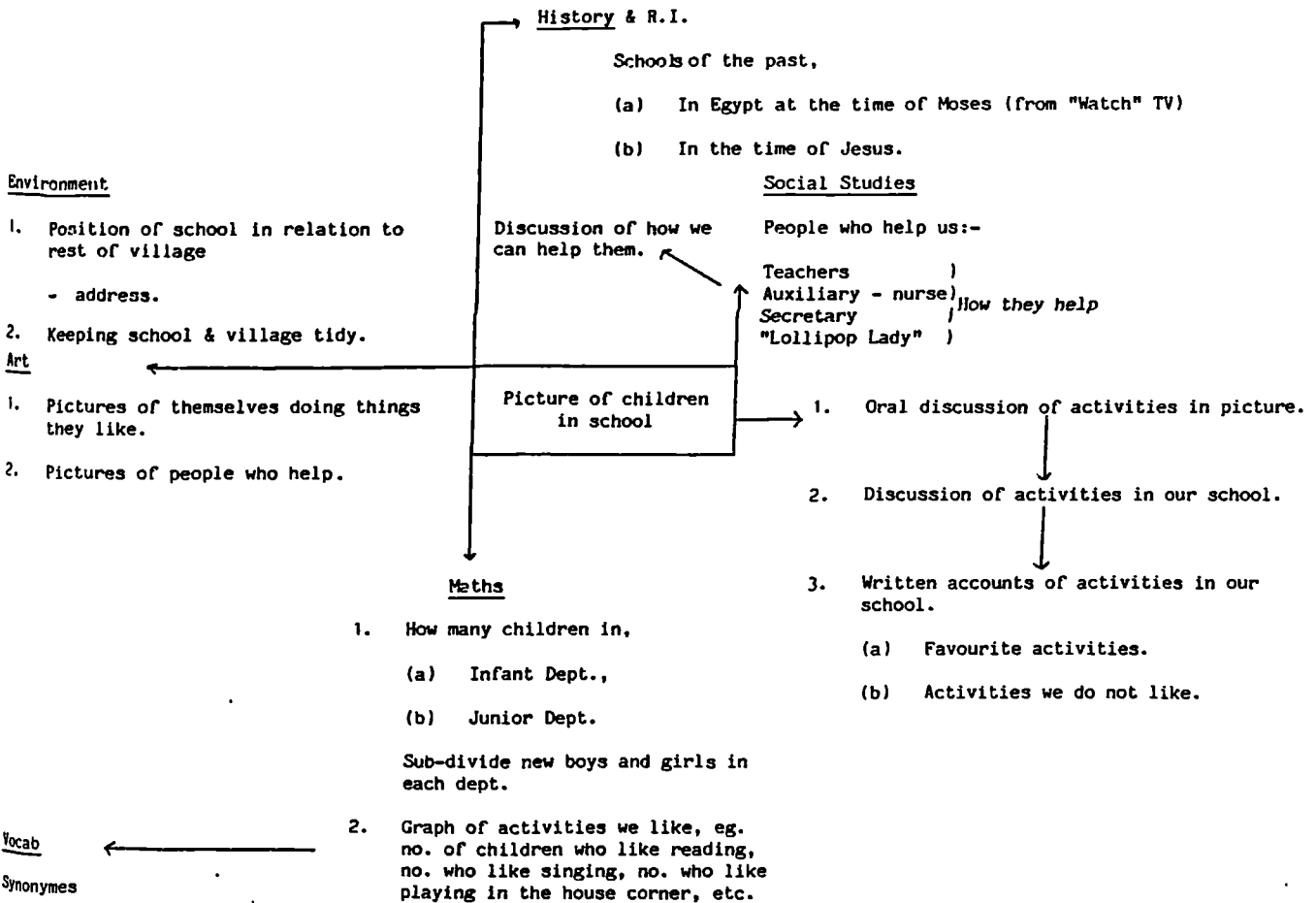
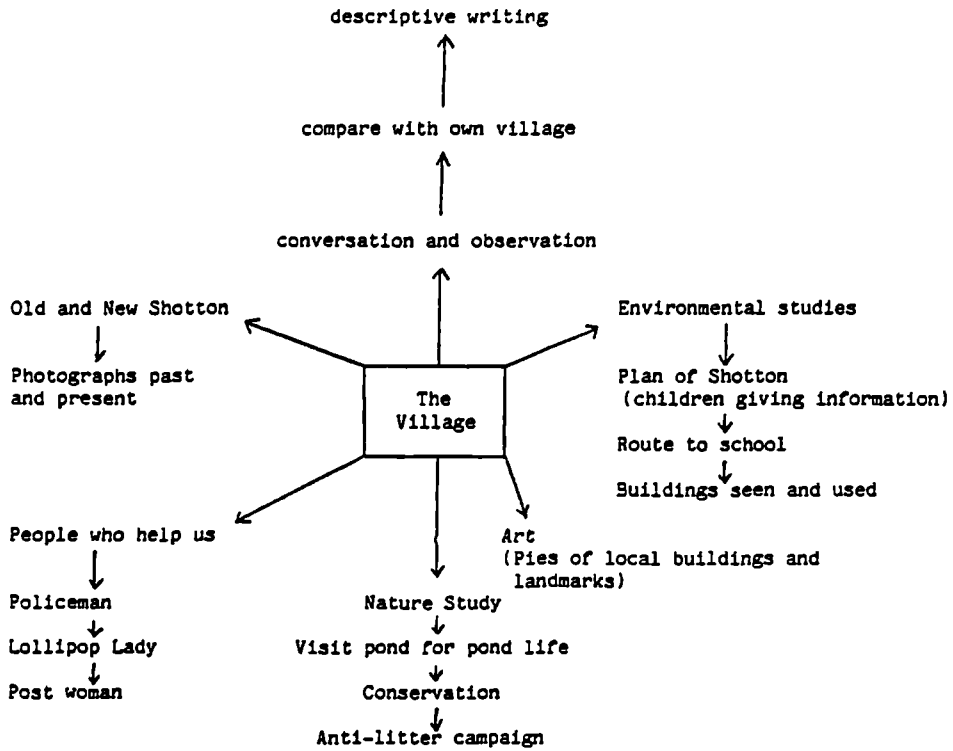
'Round objects' display to incorporate a spotty dotty table, bubble pictures, printing with round shapes, tissue paper circle pictures, also any round objects table.

Sound table 'm' to include objects brought from home. Objects are labelled. Large collage 'M' on wall made by the children from cut out 'm's'. Reading corner - all sounds we have previously looked at are mounted on the wall with a cut out picture from magazines beginning with 'm'. Display area around my desk where any children can draw/paint a picture of their own choice and I will mount them.

EXAMPLES OF TEACHERS' WRITTEN ACCOUNTS OF HOW PICTURES MAY BE USED IN DIFFERENT LEARNING CONTEXTS

M. E.

Use of pictures



Vocab
Synonymes

for "like" - enjoy, etc.
for "nice" - lovely, etc.

EXAMPLES OF TEACHERS' WRITTEN COMMENTS ON THE SORTS OF LEARNING AIDED BY PICTURES

Learning functions for which I use pictures

1. Probably the most important and frequent, is the use of pictures in reading books. Pictures in reading books are a useful tool to help a young child or in fact, any child who is beginning to read or perhaps, having learning difficulties. At the same time, the pictures can be used for further discussion and language development.
2. Learning sounds of the alphabet - when introducing a new sound to children, I find pictures can be useful in several ways; showing children a large poster-type picture where all things beginning with 'm' for example, are picked out in discussion; a similar version of this is handing the children a duplicated picture where they can ring the items themselves, I also ask the children to use picture dictionaries to see if they can find another word beginning with that sound and draw it in their books (this can be done with reception class children who are capable enough).
3. Number work - counting how many flowers are in a picture. Our SPM Maths workbooks use pictures a great deal for the same purpose, eg. colour in 10 girls, or, how many houses?
4. Pictures are a valuable visual aid when discussion or introducing or perhaps revising particular topics, eg. the seaside - where colourful picture would be a good interesting stimulus for further discussion. These pictures can then be displayed in the classroom.
5. I often draw pictures on the blackboard and I must admit that it nearly always delights the children so I can be assured I have their full attention, eg. spot the difference pictures, pictures beginning with a particular sound, eg. bat, ball, bed, box, or a picture accompanying a story.

I. C.

I use pictures (illustrations) as an aid to excite the child's curiosity in an area that we cannot explore together in the world around us.

Topic work takes us into the natural environment - park, market, church and school, river, food, clothes, water, air, transport and seaside.

These areas of exploration are best understood by seeing, touching, smelling - experiencing first hand. More detailed information, ie. growth of seeds - development of a chick will lead to the use of well illustrated books. These I may read or leave in the book corner depending on the depth of interest.

If our topic is concerned with an historical aspect - Early Man, Dinosaurs - aspects of the sea, that we cannot experience - sailing boats - geographical aspects - islands, icebergs. For this, I use illustrations in books and good quality magazines, ie. Usborne ref. books 'Ships', 'The Sea'. These magazines I take to school to share with the children.

Posters that I have found very useful for Road Safety, and transports, I keep in a card folder on top of the cupboard. I have never had any other method of storage but I imagine a very good idea would be a plan chest.

The Road Safety posters stimulate conversation, are useful for identification - and vocabulary, and for stimulating observations and relating them to the world outside.

I use the pictures in reading books for discussion and reference (in reception we made our own reading books individual and class, based on a topic or theme).

I use illustrations in language work sheets to help vocabulary recognition.

When we have explored the environment we represent it using fabrics and techniques that "imitate nature in her manner of operation". Here the child is allowed to express its' own perception of its relationship to the world. These pictures create a personal and meaningful environment. The creation of this "picture" leads to a further exploration of yet another environment, of texture visual and palpable, of size measurement language and social skills.

ANALYSIS OF TEACHERS' WRITTEN COMMENTS ON THE WAYS IN WHICH PICTURES MAY BE
USED IN THE INFANT CLASSROOM

Ways in which pictures are used in the infant/nursery classroom

- (a) As surrogate experience to:-
 - (i) Explore the world beyond the classroom.
 - (ii) Present historical people and events.
 - (iii) Show fantastic and imaginary creatures and events.
- (b) As decoration to provide a colourful stimulating environment.
- (c) As a stimulus and starting point for:-
 - (i) Discussion.
 - (ii) Art work.
 - (iii) As a lead in the other activities.
- (d) As a means of giving extra information to:-
 - (i) Encourage answering.
 - (ii) Help with the development of descriptive language.
 - (iii) Make stories more entertaining and realistic.
- (e) As an aid to memory, e.g. pictures first used to generate discussion then displayed to help children remember the elements of the story.
- (f) As a means of accessing written language, e.g. picture dictionaries.
- (g) As a substitute for written words, e.g. for labelling things.
- (h) For generating and holding attention.
- (i) To evoke emotional responses.
- (j) As a means of receiving an answer, e.g. ticking the appropriate picture on a work card.
- (k) Therapeutically, in particular during the 'settling in' process.

ANALYSIS OF TEACHERS' COMMENTS ON THE SORT OF LEARNING WHICH CAN
BE AIDED BY PICTURES

Sorts of learning which are helped by using pictures

- (a) Language development: including:-
 - (i) word recognition;
 - (ii) sentence construction ;
 - (iii) alphabetical competence;
 - (iv) vocabulary.
- (b) Mathematics and related areas: including:-
 - (i) counting;
 - (ii) sorting;
 - (iii) classifying;
 - (iv) matching;
 - (v) ordering
 - (vi) reasoning.
- (c) Curiosity
- (d) Selective attention
- (e) Concept formation
- (f) Observation
- (g) Discussion skills
- (h) The development of qualities related to pictures themselves:-
 - (i) sense of touch;
 - (ii) sense of colour.

ANALYSIS OF TEACHERS' WRITTEN COMMENTS ON DISPLAY

At an earlier meeting, teachers were asked to record ways in which classroom wall displays could be (a) described, (b) categorised. The teachers could do this by either concentrating upon existing displays in their own or colleagues' rooms, or generalise from their existing experience of classroom wall displays.

The resulting reports suggest that there is more than one dimension which can be used either by the teacher themselves in assessing the effectiveness of their own displays, or by an observer. Three distinct ways of categorising or assessing displays emerge from the reports. What follows is a summary of these.

It is suggested that displays may be described in terms of the 'type' of pictures which are used. 'Type' in this case refers mainly to the agency of its production. These include:

- (a) Children's 'free' art work which might be in any medium, more or less figurative, and shade into three dimensional models.
- (b) Children's 'directed' art work, which would include all of the following:
 - (i) Children's pictures illustrating writing.
 - (ii) The classroom frieze, which would be normally initiated and arranged by the teacher, but contain individual items of children's work.
 - (iii) Pictures drawn by the teacher and coloured by the children.
- (c) Commercial 'poster' type pictures. These are characterised by having as part of their design distinct educational or informational intentions, whether or not the original target group is, in fact, children.
- (d) Commercial 'non-poster' type pictures. These may originate from a number of sources including:
 - (i) Picture books
 - (ii) Magazines
 - (iii) Brochures and catalogues
 - (iv) Postcards, birthday and Christmas cards.
- (e) Pictures drawn by the teacher. Whether or not these were drawn with the children looking on might be instrumental in the degree of impact which they have upon the children.

It was implied that this sort of analysis could lead to some degree of quantification either by considering the different proportion of wall space dedicated to each type, or by a count of the pictures in each category expressed as a proportion of the whole display.

2. Another dimension mentioned by most teachers was concerned with the function of the pictures in the display. That is to say that they may be categorised in terms of their specific contribution to the life of the class and the learning of the children. The functions identified were:-

- (a) As an integral part of continuing work, in which case it may be acting as a reminder of where the children are up to; adding further stimuli, organising ideas or acting as a form of reward to individual children.
- (b) As a record of activities completed. This might apply to any 'theme' or 'project' or relate to any other aspect of the class work including number and language work.
- (c) As a starting point for work. One way uses the display to generate conversation and discussion which subsequently leads into a project.
- (d) As an aid to vocabulary development. This will also include word recognition, and can be done with varying degrees of deliberation. At one end of the scale, some pictures may be displayed in a labelled way so as to specifically link the visual image and the written word. At the other end of the same scale, it is claimed that any displayed pictorial work will contribute to word recognition and in particular reading vocabulary.
- (e) As an aid to letter identification. Although this function may be argued to be part of (d) above, occasionally items in a display may be specifically related to it rather than complete word recognition.
- (f) As an aid to number recognition. A similar claim is made as for (d) above. Some pictures may be deliberately selected and labelled in such a way that they give overt mathematical instruction, but most pictures contain information which may contribute to counting, set theory and so on.
- (g) As decoration. In this case pictures may be used to make the classroom more colourful, or make some other aesthetic contribution to the environment.
- (h) As general stimulation. Displays may spark off thought or stimulate curiosity in a generalised way which is not necessarily foreseen by the teacher and does not spring from or lead into specific classroom activities.

Because it is intrinsically related to the intentions that the teacher has for particular displayed material, this way of assessing displays is probably more valuable to the teachers themselves than a casual observer. That is to suggest that it may form the basis of a scale for self-evaluation, which would enable the teacher to question the appropriateness and balance of wall displays in relation to the work of the class at any particular time.

3. The following suggested scale takes a more value oriented focus. It presents criteria for judging the wall displays, as opposed to merely describing or comparing them. It takes three broad value areas and discriminates component values within each.

(a) The educational value

- Including
- (i) Level of child involvement
 - (ii) The soundness of the concepts illustrated
 - (iii) The worthwhileness of the area illustrated
 - (iv) The amount of information contained in the display
 - (v) The extent to which the display is thought provoking.

(b) The aesthetic appeal

- Including
- (i) The arrangement of the whole display
 - (ii) The colour and shape of the whole display
 - (iii) Quality of mounting
 - (iv) Quality of printing/lettering
 - (v) Freshness.

(c) The relevance

- Including
- (i) Appropriateness of theme
 - (ii) Suitability to age range in question
 - (iii) The extent to which it reinforces work completed and in hand
 - (iv) The extent to which it stimulates the children.
-

The three perspectives outlined above are valuable in that some or all of them might form the basis of a check list which might be used by an observer, or the teacher themselves, to describe or assess wall displays. A secondary, but no less valuable aspect of them is the way in which they illustrate the complexity of pictures themselves and the part they play in early schooling. It is clear from the items contained in them as well as the way in which they intersect that a comprehensive set of criteria for assessing wall displays would need to classify in a multi-dimensional way taking cognizance of at least the following broad areas:

1. Physical features of the pictures and their arrangement.
2. Stylistic or representational features.
3. Their origins.
4. The teachers' educational intentions for them.
5. The ways in which they had or were being used in relation to the work of the class.
6. Any constraints which had operated in producing the display.

However, it is also clear that any observation schedule need not set out to be comprehensive but might be descriptive, or analytical, or evaluative, in which any would subsume the former.

APPENDIX

SECTION TWO: THE QUESTIONNAIRE SURVEY

THE QUESTIONNAIRE FORM

			1
--	--	--	---

SURVEY INTO THE USE OF PICTURES
IN INFANT CLASSROOMS

THIS SURVEY IS INTENDED TO GATHER INFORMATION ABOUT WAYS IN WHICH INFANT TEACHERS SELECT AND USE PICTURES.

THE QUESTIONNAIRE IS CONCERNED WITH 'PICTORIAL LITERACY', THAT IS TO SAY THE CHILD'S POWER TO INTERPRET, UNDERSTAND AND BENEFIT FROM LOOKING AT PICTURES. THIS DOES NOT INCLUDE MAKING PICTURES, SINCE THE CREATIVE PROCESSES INVOLVED IN PICTURE MAKING ARE QUITE DIFFERENT FROM THE RECEPTIVE PROCESSES INVOLVED IN 'READING' PICTURES. IT FOLLOWS THAT A CHILD'S OWN PICTURES, THOSE WHICH HE HAS DRAWN OR PAINTED HIMSELF, ARE DIFFERENT IN RESPECT OF 'PICTORIAL LITERACY' FROM ALL OTHER PICTURES, BECAUSE THEY ARE MADE FROM HIS OWN SYMBOLS AND CONSEQUENTLY HAVE A PARTICULAR DEPTH OF MEANING FOR HIM. THIS IS NOT THE CASE WHEN WE CONSIDER THE CHILD TRYING TO PUT MEANING ONTO EITHER ADULT PICTURES OR THE WORK OF OTHER CHILDREN.

FOR THIS REASON THE WORD 'PICTURE', THROUGHOUT THE QUESTIONNAIRE, REFERS TO ANY PAINTING, PRINT, DIAGRAM, PHOTOGRAPH OR DRAWING EXCEPT THOSE PRODUCED BY THE CHILD IN QUESTION, AND WHERE QUESTIONS ARE ASKED ABOUT THE VALUE OF ACTIVITIES INVOLVING PICTURES THIS IS NOT MEANT TO INCLUDE PICTURE MAKING OF ANY SORT.

It will be helpful if you are able to complete the questionnaire at the first attempt, preferably without discussing any of the questions in advance with your colleagues.

ALL REPLIES WILL BE TREATED WITH THE STRICTEST CONFIDENCE
--

SECTION 1
BACKGROUND INFORMATION

Please answer in the boxes on the right.

(a) How many years teaching experience do you have?(with children of any age).

(b) How old are the children in your present class?

(c) How many children are in your present class? (in the case of team teaching please divide the number of children by the teachers responsible for them).

(d) What is the total number of infants (4+ to 7+)in the school.

(e) Please tick the appropriate box to indicate whether your teaching organisation is;-

team teaching	<input type="checkbox"/>
partial team teaching	<input type="checkbox"/>
class teaching	<input type="checkbox"/>

(f) Which of the following describes your present position?

Head teacher	<input type="checkbox"/>
Deputy headteacher	<input type="checkbox"/>
post of responsibility	<input type="checkbox"/>
teacher	<input type="checkbox"/>

(g) Please tick the appropriate box to indicate whether your classroom is;-

open-plan	<input type="checkbox"/>
semi open-plan	<input type="checkbox"/>
closed	<input type="checkbox"/>

PLEASE CHECK THAT YOU HAVE COMPLETED ALL PARTS OF SECTION 1 BEFORE TURNING TO THE NEXT SECTION.

NOTE: QUESTION (a) CODED 'TDIFF'
QUESTION (b) CODED 'TPLAN'
QUESTION (c) CODED 'TDEC'
QUESTION (d) CODED 'TBASIC'

SECTION 2

TEACHING STYLE

It will help the survey to be a more accurate and meaningful account of teachers' views and practice if your answers to the detailed questions in section three about your use of pictures can be located with respect to your general teaching style.

The following questions are about some of the broad aspects of teaching style on which teachers commonly differ. Please show, by ticking the appropriate box, the point on each scale which best characterises your teaching approach.

(a)

The teaching day is differentiated into distinct periods for specified activities.

The teaching day is completely undifferentiated.

--	--	--	--	--

(b)

Most learning activities are planned in detail in advance.

Most learning activities are unplanned and arise spontaneously.

--	--	--	--	--

(c)

You decide what the children will be doing at any time.

The children decide what they will be doing at any time.

--	--	--	--	--

(d)

Most of the work of the class is aimed at developing the 'basic subjects'.

Most of the work of the class is aimed at other things than the 'basic subjects'.

--	--	--	--	--

SECTION 3

(a) USES FOR PICTURES IN THE CLASSROOM

There are many ways in which pictures are used in the infant classroom. Listed below are some of those most often mentioned by teachers.

Please tick the box on the right to indicate the frequency with which you use pictures in each of these ways.

CONSTANTLY OFTEN SOMETIMES RARELY NEVER

(i) *To stimulate spoken language and discussion.*

--	--	--	--	--

(ii) *As classroom decoration.*

--	--	--	--	--

(iii) *To assist with word or letter recognition.*

--	--	--	--	--

(iv) *To enable children to experience things that the classroom would otherwise be unable to provide.*

--	--	--	--	--

(v) *As a substitute for written words, e.g. labels.*

--	--	--	--	--

(vi) *As a way of introducing a new topic or theme.*

--	--	--	--	--

(vii) *To Stimulate thinking .*

--	--	--	--	--

(b) THE CONTRIBUTION OF PICTURES TO DEVELOPMENT

Please tick the appropriate box to show the extent to which each of the areas of development shown is fostered by the children seeing and using pictures. This should indicate what is true for the children in your class, and hence arise from the particular teaching techniques which you normally employ.

NOTE: The tick should not indicate the relative importance of the areas of development themselves, only their dependence upon pictures in your classroom.

	entirely	a deal	to great extent	very some little	not at all
(i) <u>The basic skills.</u> (ability in reading, writing, and mathematics)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) <u>Intellectual autonomy.</u> (individuality and self direction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) <u>Intellectual competence.</u> (general understanding, critical thought, and ability to communicate)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) <u>Personal.</u> (self confidence, enthusiasm, emotional balance, and cheerfulness)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) <u>Social/moral.</u> (ability to get on with others, and behave in a moral, and socially acceptable way)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vi) <u>Spiritual/religious.</u> (spiritual awareness, and knowledge of religious beliefs and behaviour.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vii) <u>Cultural.</u> (appreciation of beauty, skills in aesthetic activities, creativity and invention)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(c) GENERAL DEPENDENCE UPON PICTURES.

Please tick the box which indicates the extent to which your teaching in general involves using pictures.

entirely	a deal	to great extent	very some little	not at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(d) PREFERENCES FOR PICTURES

Please tick that point on the scales which best expresses your preferences for the style and content of the pictures which you use in the classroom. A tick in the middle box would indicate that you have no preference in respect of the criterion in question.

However, it may occur that you have a preference with regard to a particular criterion, but it is not easy to show on the main scale because it varies according to the particular educational use that you intend for the picture. In this case leave the main scale blank and tick the box on the right.

<i>photographically realistic mode of representation.</i>	<i>non-photographic mode of representation</i>	<i>preference varies according to particular use it will be put to.</i>
(i) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>
<i>fully detailed</i>	<i>undetailed</i>	
(ii) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>
<i>coloured</i>	<i>black & white</i>	
(iii) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>
<i>figurative</i>	<i>abstract</i>	
(iv) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>
<i>primary colouring</i>	<i>subtle colouring</i>	
(v) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>
<i>sharp or clear definition</i>	<i>soft or vague definition</i>	
(vi) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>
<i>fully tonal</i>	<i>line drawing</i>	
(vii) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>

preference varies according to particular use it will be put to.

<i>exotic or unusual content</i>	<i>familiar content</i>	
(viii)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
<i>busy and full of movement</i>	<i>depicting no movement</i>	
(ix)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
<i>crowded with objects / events</i>	<i>showing a single object / event</i>	
(x)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
<i>meaning depends upon pictorial metaphor</i>	<i>meaning is obvious and straightforward</i>	
(xi)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>

(e) STORAGE AND RETRIEVAL OF PICTURES

Storage and indexing of pictures may be more or less systematic. A highly systematic approach would enable the user to easily find a picture on the basis of subject, mode of representation, and so on. An unsystematic approach might be a stack of pictures with no detectable organisation.

Please tick the box which best describes your approach.

<i>highly systematic</i>	<i>systematic</i>	<i>unsystematic</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have indicated 'highly systematic', will you please give details below of the categories you use, and any other features of the system which you feel are relevant.

.....

.....

.....

.....

(f) WALL DISPLAYS

What constitutes a good wall display is largely an open question, but most educationists do have opinions about the matter.

Below are some criteria, with opposing preferences placed at opposite ends of a five point scale. Please indicate your opinion by ticking the appropriate box. What is referred to is the whole wall display in a classroom.

- (i) *The main function of a display should be decorative.* *The main function should be carrying information.*
- (ii) *The best displays contain mainly the children's work.* *The best displays contain mainly good adult work.*
- (iii) *A good display will contain many themes.* *A good display will contain few themes.*
- (iv) *The children should be responsible for selecting and arranging the display* *The teacher should be responsible for selecting and arranging the display.*
- (v) *The main purpose is to reward children by showing their work.* *The main purpose is to aid in the instruction of the children.*
- (vi) *A good display is always in the course of completion but never finished.* *A good display is complete and finished.*

If you feel that there are important criteria not given above please add them below. Go on to extra sheets if necessary.

.....

.....

.....

.....

.....

.....

(g) CHILDREN'S UNDERSTANDING OF PICTURES.

A substantial body of research work exists which suggests that some aspects of pictorial understanding are not fully developed in infants.

Please tick the appropriate box to indicate whether the majority of children you teach show an understanding of the qualities listed below.

- (i) Can they infer from a picture the psychological states of the subjects? (fear, uncertainty, joy, and so on.)

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (ii) Can they identify familiar objects when shown from an unfamiliar point of view?

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (iii) Can they understand conventional devices implying movement? (speed lines, multiple images, and so on.)

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (iv) Can they interpret pictures metaphorically?

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (v) Can they make effective use of the context for identification? (tell what ambiguous things are from pictorial context clues)

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (vi) Can they voluntarily shift attention from part to the whole of a picture or image?

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (vii) Can they ignore incidental information? (give attention selectively to relevant parts of a picture.)

yes	partly	no	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(h) TEACHER MADE PICTURES

Many teachers feel that the pictures that they draw themselves have a special value in the classroom. Some of the reasons commonly given are listed below. Please tick to indicate whether or not you agree with them.

AN IMPORTANT VALUE OF TEACHER MADE PICTURES IS THAT :-

- (i) *They can be made more relevant to the children's needs and experience than commercially produced pictures.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (ii) *They save time in looking for appropriate pictures elsewhere.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (iii) *The children's art will benefit because they will identify with an artistic teacher, seeing picture making as a normal activity even for adults.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (iv) *The scale of the picture can be varied to fit in with the particular use intended for it.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (v) *Any skill demonstrated by the teacher excites admiration in the children, and so helps to build relationships with them.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(i) PICTURES IN BEGINNING READING BOOKS.

There are a number of open questions in relation to the use of pictures in early or beginning reading books. Please indicate your opinion of the following statements by ticking the appropriate box.

(i) *In the earliest stages of reading, pictures distract attention from the text, and consequently inhibit the development of sight vocabulary.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(ii) *Pictures are essential in all reading books, because of the context cues they offer the reader.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(iii) *Pictures in beginning reading books should only show the objects that are directly named in the text.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(iv) *Pictures in beginning reading books should be realistic, with much incidental information.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(v) *Good pictures will usually motivate the child to begin reading.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(vi) *If the picture tells the whole story, the child will not be encouraged to read the text for further information.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(vii) *properly controlled, pictures in beginning reading books can be used to reinforce (reward) each successful page read.*

<i>agree</i>	<i>undecided</i>	<i>disagree</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(k) TEACHING TECHNIQUES USING PICTURES.

In addition to gauging teacher opinion, it is the intention of this survey to collect examples of teaching methods which use pictorial materials.

If you have any ways of using pictures in your teaching ,which you consider either particularly effective, or are unusual, please give brief details below.Please continue onto a separate sheet if necessary.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

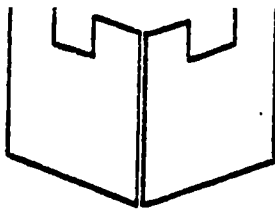
(I) The opportunity to enrich the questionnaire data by speaking to some of those who have completed it is very valuable,if not essential to a survey of this kind.

If you are willing to talk to a researcher about the questionnaire, or other issues connected with pictures in infant education,please give your name in the space provided below.

.....

THANK YOU FOR GIVING YOUR TIME TO COMPLETING THIS
QUESTIONNAIRE. THE INFORMATION THAT YOU HAVE GIVEN
WILL BE TREATED WITH THE STRICTEST CONFIDENCE.

*PLEASE PUT THE COMPLETED QUESTIONNAIRE IN THE ENVELOPE PROVIDED
AND SEAL IT. THE HEADTEACHER WILL RETURN THEM ALL TOGETHER.*



New College Durham

Principal - Leonard G. Bewsher, Dip. Ed. (Lond.), B.Sc. (Econ.), M.A., F.R.S.A.

Dean of Faculty - J. F. Risby, B.A., M.A. (Ed.), Ac. Dip. Ed.

FACULTY OF EDUCATION

Neville's Cross Centre * Durham DH1 4SY *

telephone 47325
EXTENSION 278

The Director of Education
LEEDS.

Ref:

Dear Sir,

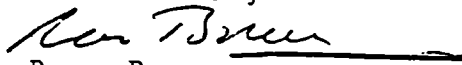
I am the principal lecturer in special needs and coordinator of in-service education at the above college. During the academic year, 1985 - 1986 I have been released in order to conduct research into the use of pictures in infant classrooms. The first phase, which is now completed, involved meeting with a group of teachers in college to discuss general approaches to the research. A questionnaire survey of the opinions of infant teachers will be the second phase, and follow up interviews of some of the questionnaire replies will be the third.

With your permission I would like to use Leeds as one of the two LEAs for phases two and three, the other being Durham. There are two reasons for the choice of Leeds. First, it is largely urban and suburban, which nicely complements the mainly rural Durham, and in combination should produce a sample which is fairly nationally representative. Second, I have existing links with Leeds University, which will bring me to the City for a large part of the year in connection with another project.

In detail I am wishing to circulate a questionnaire to some twenty four Leeds infant, or first schools, with the selection of the schools concerned being made in consultation with the primary adviser for Leeds. In addition some of the replies might be followed up by talking to teachers and headteachers about examples of good practice which they report.

The project will eventuate in a report, copies of which will be made available to the Authority, for distribution to schools, if it is so wished.

Yours sincerely


Ron Brown.



New College Durham

FACULTY OF IN-SERVICE EDUCATION, COMMUNICATION & COMPUTING STUDIES

Principal - Leonard G. Bewsher, Acad. Dip. Ed. (Lond), B.Sc. (Econ), M.A., F.R.S.A.

Dean of Faculty - Peter Connell, B.Ed., Dip.Ed., M.A.

Neville's Cross Centre, Darlington Road,
Neville's Cross, Durham DH1 4SY

Telephone Number:
Durham (0385) 47325
extension 278

SURVEY INTO THE USE OF PICTURES
IN THE EARLY YEARS OF SCHOOLING

Dear Headteacher,

I am writing to ask for your help in collecting teacher opinion and instances of effective practice in relation to the use of pictures in infant education. The project arises from the observation that whilst the importance of pictures in infant schools is universally acknowledged in the profession, the considerable body of existing research pays too little attention to the views and experience of practitioners. A survey of this sort should help to redress the balance.

I will be grateful if you will pass a questionnaire to each of your infant teachers and complete one yourself; collecting and returning them all together in the enclosed stamped/addressed envelope, to arrive before February 7th. I would also appreciate any additional comments you care to make on the Project.

The Survey is approved by the L.E.A. and permission has been given by the Director of Education for this approach to be made, and your help sought.

Yours sincerely

ENCL. 6 questionnaire forms and one return envelope. (If further questionnaire forms are needed please contact me at the address given on the return envelope)

This matter is being dealt with by Ron Brown.



New College Durham

FACULTY OF IN-SERVICE EDUCATION, COMMUNICATION & COMPUTING STUDIES

Principal - Leonard G. Bewsher, Acad. Dip. Ed. (Lond), B.Sc. (Econ), M.A., F.R.S.A.

Dean of Faculty - Peter Connell, B.Ed., Dip.Ed., M.A.

Neville's Cross Centre, Darlington Road,
Neville's Cross, Durham DH1 4SY

Telephone Number:
Durham (0385) 47325

Ref: RB/CMB

18 February, 1986.

Dear Headteacher,

Survey of uses of pictures in the
Infant Classroom

I now have most of the questionnaires returned, and I am anxious that I miss as few schools as possible.

If yourself and/or your staff have decided that it is inappropriate to complete them at this time, or you have already sent them, please disregard this letter. However, if you have merely forgotten, or were thinking that it is now too late, I would be still pleased to receive them. If they arrive before March 7th I can still include them in the data.

Thank you for your help. Please contact me if you need more questionnaires, or a return envelope.

Yours sincerely,

Ron Brown.

This matter is being dealt with by

TABLE 3b

Kendall's tau correlation coefficients for
all correlations with a significance of at least $P < .05$

	classroom uses for pictures												
	stimulating language	classroom decoration	word recognition	vicarious experience	substitute for words	topic introduction	stimulating thought	reward	giving answers (pupils)	aiding memory	aiding attention	giving instructions	stimulating emotions
teaching experience													
age of children													
number in class													
status of teacher													
team/class teaching													
open/closed classroom													
differentiated/integrated	.15	.22			.16	.15		.23	.20	.16		.12	
prior/spontaneous planning	.13	.16			.10			.14	.16	.09	.18		
teacher/child determination		.16	.12					.09	.15	.10		.14	
basics/other focus of work	.10	.11	.18		.09	.11		.17	.21	.12			
teaching style	.16	.21			.13	.15		.20	.23	.16	.09	.15	
dependence on pictures													

TABLE 3b (continued)

	effect on development						
	the basic skills	intellectual autonomy	intellectual competence	personal	social/moral	spiritual/religious	cultural
teaching experience	.10					.17	
age of children	.22			.12			.12
number in class				.11			.15
status of teacher							
team/class teaching							
open/closed classroom							
differentiated/integrated				.11	.11		
prior/spontaneous planning							
teacher/child determination						.09	.10
basics/other focus of work	.12						
teaching style					.14		
dependence on pictures	.37	.28	.33	.37	.26	.17	.33

TABLE 3b (continued)

	systematic storage	wall displays					children's understanding							
		decoration/information	adult/child work	many/few themes	adult/child selection	reward/instruction	complete/incomplete	inference	identification	conventions	interpretation	use of context cues	shift attention	ignore incidentals
teaching experience			.09		.10	.14	.15			.12				
age of children					.12				.08	.21	.25	.17		
number in class											.10		.17	
status of teacher														
team/class teaching								.16		.12				
open/closed classroom												.10		.09
differentiated/integrated	.11	.14											.14	
prior/spontaneous planning														
teacher/child determination														
basics/other focus of work														
teaching style														
dependence on pictures														

TABLE 3b (continued)

	teacher made pictures					pictures in early reading						special needs	
	increase relevance	save time	identify with artist	scale can vary	excites admiration	distract from text	context cues	only named objects	realistic mode	usually motivate	whole story		reinforcement
teaching experience		.13	.14							.11			.13
age of children													
number in class													
status of teacher			.11		.10								
team/class teaching		.12										.12	
open/closed classroom		.12										.11	
differentiated/integrated	.12				.08						.12		
prior/spontaneous planning													
teacher/child determination	.10		.09										
basics/other focus of work					.12								
teaching style	.09	.10						.16					
dependence on pictures					.09					.10			.17

COLLATION OF COMMENTS MADE IN QUESTIONNAIRE
FOLLOW-UP INTERVIEWS

<u>General</u>	<u>Number of responses</u>
√ No general problems	7
√ One area of doubt (3g) Realistic = photographic	1 G+1
Questionnaire not too long	G+1
Took 10-20 minutes	1
Colour blind ch have problems with pictures	G
√ Quite a few questions ambiguous	1
√ It seemed clear and straightforward	1
HT Liked the 5 point scale, allowed flexibility	1
HT (Generally difficult to complete because of conflict (between role as teacher and role as head	1
HT A lot to read in it - demanding of time	1
HT Some questions might have been skimped (not by me)	1
HT √ Questions are clear - did not complete one myself	1

Section 1

	<u>Number of responses</u>
HT Q(e) quite difficult because some variation between classes	1

All other interviewees report that no problems were experienced with this section.

Section 2

<u>General</u>	<u>Number of responses</u>
No difficulty in answering	3
HT Unable to answer as head since teachers vary	/
HT (Answered as a mean of what goes on in school- (hence they turned out to be mainly 4's	2
HT At some times at one end, at others at other extreme	1
HT Answered for self - not for staff	1
HT Questions clear	1
(a) Inevitable fixed periods - (3 scored)	1
I work integrated day - fit in with hall - (3 scored)	1
HT (Teaching day in the first school is governed (by the use of the hall, T.V. etc. - (4 scored)	1
No problem in understanding	8
No problem in answering	6

Section 2

		<u>Number of responses</u>
	(b)	
	basics are planned, weekly - (4 scored)	1
	may vary day by day	G
	Teacher 'framework' necessary (Lesson plans)	G
	Projects may be less formal (planned)	G
	Planning takes account of childrens preference - (2 scored)	1
	Planning takes account of childrens' abilities - (3 scored)	1
	Not certain how detailed plans have to be	1
	Normally plan a term ahead, and night before - (3 scored)	1
HT	(trend with most careful planning, necessary to (allow for the unexpected to arise	1
HT	A need to pick up interesting things that happen - (2 scored)	1
HT	A skeleton scheme of work exists - within which opportunities arise spontaneously (2 scored)	1
	No problem in understanding	10
	No problem in answering	8

		<u>Number of responses</u>
	(c)	
	I always listen to children's ideas - (3 scored)	1
	If children enjoy a book they can continue it - (3 scored)	1
	I am influenced by what I think children want - (3 scored)	1
HT	Choice from both sides with teacher and child involved - (3 scored)	1
	No problem in understanding	5
	No problem in answering	6

		<u>Number of responses</u>
	(d)	
HT	Due emphasis must be given to basics at this time	1
HT	(I ticked 4 speaking for the school, but speaking (for self would place emphasis upon social aims	1
	No problem in understanding	8
	No problem in answering	9

Section 3

Number of responses

(a) General

	Not too sure about pictures as reward	G
	Not sure whether pictures in books or poster being referred to, but agreed questions worked for both	G
HT	No problems/questions clear	2
HT	Rarely use pictures to give instruction	1
HT	(After thinking about it realised tht we do use pictures (as reward - e.g. ch. select picture to write sentence to - (when they pick next picture it is rewarding previous (sentence	2 1
HT	(This section gave greatest difficulty - differences (between teachers	1
	no problems in understanding	5
	no problems in answering	7

(b)

Number of responses

	Found these a little difficult to answer so chose middle way	2
HT	Had to re-read before deciding how to answer	1
HT	(Social/moral got the higher tick, because such issues (are effectively dealt with using pictures	1
HT	Difficult because no class of her own	1
HT	Had to think a lot about this <i>section</i>	1
HT	Much variation between answers	1
	No problem in understanding	8
	No problem in answering	8

(c)

HT	Some teachers may be more dependent than they think	1
HT	Less difficulty here	1
HT	Answered in terms of average for school	1
	No problem in understanding	7
	No problem in answering	7

Section 3

	<u>Number of responses</u>
(d)	
Found it easy to indicate preference	2
Did indicate preference - but more often ticked 'varied use'	1
HT Most depend upon what you intend to use pictures for	1
HT Made preferences about style of picture but not content	1
HT (Sometimes not a question of content but of general (aesthetic impact and value	1
HT Difficult because no class of her own	1
HT With small children too much detail is distracting	1
HT 'Dick Brunner' pictures best for understanding	1
HT Busy pictures distract	1
HT When choosing I pass over 'scribble' pictures	1
HT Commercial pictures mainly used in preparing for new project	1
HT Always chooses figurative pictures	1
HT Questions (viii) - (xi) most dependent upon function	1
HT Q(i) <u>growth</u> in preference for photographic	1
HT Above also true for colour - attention wanders with B+W	1
HT (Q(viii) Teachers more comfortable with 'familiar' (pictures - they can 'take more' from them	1
HT Q(xi) Difficult for HT - age of children most important	1
HT Felt conflict between teaching role and HT role	1
No problem in understanding	7
No problem in answering	4

	<u>Number of responses</u>
(e)	
Making time is a problem	2
Answered 'systematic' but aim probably	1
Unsystematic, but know where my pictures are	1
HT Reported 'systematic' but added question mark	1
HT Systematic storage is 'what will be', not what is	1
HT We don't use pictures over and over again	1
HT Have central picture resource	5
HT Answered 'systematic'	1
HT (Storage and referencing a problem, too many (pictures end up in general section	2
HT Communication between staff is important	1
HT Stored as magazines in date order	1
No problem in understanding	7
No problem in answering	7

Section 3

	<u>Number of responses</u>
(f)	
Quite straight forward/no problems	3
HT Very wide range of functions for wall display	1
HT Children's work is always valued and appreciated	1
HT May view displays as single or whole class	1
HT A single display should look finished	1
HT Children evaluate themselves via display	1
HT They look at other people's things and reassess	1
HT The teachers are good with wall displays	1
HT Wall displays should be mainly a record of work done	1
HT Some should be finished - others starting	1
HT (Teachers should improve ch. work by mounting and (by good presentation	1
HT Most important thing is that they should be dynamic	1
HT No role conflict here	1
HT Best displays are children's work	3
No problem in understanding	5
No problem in answering	5

	<u>Number of responses</u>
(g)	
(Difficult to judge for the majority of children	1
(Not easy to answer - so much depends upon intelligence of child	1
Teachers at infant level tend not to think of these things	1
Much understanding is linked to language	1
HT Difficult to complete	2
HT Not easy for the HT to judge	1
HT Mainly in this section I was forced to say don't know	1
HT No problems experienced	3
HT Vocabulary O.K. for teachers	1
HT Answers call for high level of awareness	1
HT (Made me think - particularly about the part (played by pictures in pre-school language	1
HT T.V. especially valuable	1
HT Maybe a way of observing would be 'wandering attention'	1
HT Used accumulated experience	1
HT (Might have answered some differently a few years ago - (exposure to T.V. and cartoons	1
No problem in understanding	5

	<u>Number of responses</u>
(h)	
No difficulty in giving opinions	4
(Important for all teachers to draw pictures in (front of children	6
(Too much teacher demonstration can lead to (inhibiting creativity	G+1
HT Did not discourage teachers from doing own drawings	1
HT (Children would have to see the teacher actually making (the picture to be much impressed	1
HT Not arty so don't feel qualified to say	1
HT No problem in understanding	1
No problem in answering	6

Section 3

	<u>Number of responses</u>
(i)	
Picture must be relevant to text	1
Realistic pictures not artistic ones are most effective	1
(Pictures strongly influence my choice of reading books	1
(Children look for highly pictorial books (even at 8 years old	1
Rather more difficult than other sections	1
I just put what I thought	1
(Not knowing the answers rather than not understanding (the questions was only problem	1
HT 'Quality' of picture is first consideration	1
HT Pictures must complement the text	1
HT Layout is important	1
HT Twin aims in early reading - meaning and pleasure	1
HT Need for context cues depends upon age of children	1
HT Use GINN 360 for context cues	1
HT Children start on books without words	2
HT (I'm not a reward merchant my aim is (intrinsic motivation	1
HT Appended word 'early' to answers to be sure	1
HT Strongly disagreed with Q(i) because pictures 'encouraged' beginning readers	1
HT Q(iii) small words cannot be easily illustrated	1
HT Q(v) pictures can be <u>too</u> realistic and detailed	1
HT Whipped through quickly - agree with most	1
HT No problem in answering	2
HT No problem in understanding	3

	<u>Number of responses</u>
(j)	
I could agree	1
(Pictures help at the point of pre-reading (which depends upon oral language	1
(Pictures are important for these children (SEN), +HT (but not more so than for other children	2
(By special educational needs I thought most general (sort of definition was intended (boisterous lads)	1
(ticked to show agreed, meaning that in spite of HT (importance to all, are especial aids for specific problems	1
HT Often go to deeper levels of understanding from pictures	1
HT Pictures work for all children	1
HT (Marked undecided, because <u>all</u> children benefit from (pictures - beyond that it depends upon the particular S.E.N.	1
HT ticked 'agree' - pictures do play a large part here	2
HT Often 'essential' channel of information	1
HT (A lot of children have problems with initial reading	1
(Pictures important to get them interested in first place	1
No problem in understanding	6
No problem in answering	4

APPENDIX

SECTION THREE: THE SCHOOL EXAMPLES

SCHOOL EXAMPLES

TYPES OF OBSERVATION AND INTERVIEW PER SCHOOL

NO.	DATE(s)	SCHOOL NAME	SURVEY	DISTRICT	RESPONDENT	INTERVIEW	OBSERVATION	REC.
1.	25/02/86 26/02/86	<u>AYSTON</u>	77	L	H.T. ANNE	a a,b,d,e	c,f	W.T W.T
2.	10/03/86 13/03/86	<u>BEESEER</u>	78	L	H.T. CELIA	a,e a,b,e,d	f c,f	W.T W
3.	14/03/86 18/03/86	<u>CEASHAM</u>	13	L	H.T. JANE	a a,b,d,e	c,f	W W.T.
4.	19/03/86	<u>DECHESTER</u>	48	L	H.T. GROUP	a,e e	f	W.T W P
5.	08/04/86	<u>EAST STREET</u>	29	D	H.T. GROUP	a,e e	f f	W W
6.	10/04/86	<u>FESTINGLY</u>	46	D	H.T. IRENE	a,e a,b,d	c	W.T W.T
7.	16/04/86 17/04/86	<u>GEE PARK</u>	13	D	VALERIE	a,b,d	c,f	W.P
8.	10/04/86	<u>HELTER HILL</u>	25	D	H.T.	e	f	W.T
9.	11/04/86	<u>ISLEY</u>	38	D	H.T.	a	f	W.P
10.	14/04/86	<u>JAYLING</u>	52	D	H.T. BETTY	a,e b,d,e	c,f	W.T W.T.P
11.	15/04/86 16/04/86	<u>KAYTON HALL</u>	68	D	H.T. MARY	a a,b,d,e	c,f	W W.T
12.	28/04/86 29/04/86	<u>LEEMER</u>	23	L	H.T. JOHN	a,e a,b,d,e	f c,f	W.P W.T.P
13.	30/04/86 05/05/86	<u>MIDLEY</u>	27	L	H.T. GILL	a,e a,b,d,e	c,f	W.T.P
14.	02/05/86	<u>NANTON</u>	33	L	H.T.	a,e	f	W.P
15.	23/05/86	<u>OWSTON ROAD</u>	82	D	H.T.	a	f f	W. P

TYPES OF INTERVIEW AND OBSERVATION

INTERVIEW

CODE

With teacher or head teacher about questionnaire e

With teacher or head teacher about general views on pictures, and/or background to the school. a

With teacher about intentions for teaching episode b

With teacher about observation of teaching episode d

OBSERVATION

Of teaching episode c

Of displays, or other aspects of school/classroom f

SCHOOL EXAMPLE FIELD NOTES

EXAMPLE OF HEADTEACHERS' COMMENTS
ON THE VALUE AND USES OF PICTURES

PICTURES IN THE EARLY YEARS.		INTERVIEW		12	a/e
SCHOOL	<u>LEEMER</u>	NAME Head Teacher			
AREA	L	DATE	29/4/86	TYPE	Primary

COMMENTS

Head Teacher's office following afternoon break.

(taped)

General comments on pictures and infant education

Head Teacher gives it as her opinion that it is a visual age and children have adapted to this (T.V. partly causes this) therefore children need to have pictorial material to hold and focus their attention.

The need to have new materials available to keep abreast of 'changing matters' creates the need for a bigger bank of picture resources than ever before.

Commercial pictures are very often a starting point for work, which children extend themselves. It is necessary to start from something visual, even though this may sometimes be slightly restricting. The children in the school are short of experience and pictures help to make this up. However, first hand experience is offered wherever this is possible and practical.

Storage of pictures is difficult, there is a shortage of appropriate drawers. The present method of indexing is somewhat vague; based on a thematic form of organisation with heading such as:- animals, birds, flowers, trees, topics, stories and so on.

At the moment there is an intention to get all the books and pictures re-indexed and re-organised by a librarian.

General

A picture has a value if it has an end product in the children's learning.

Pictures are the starting point for much number work, and reading. Wordless books are used for pre-reading skills.

The criteria which I use in pictures for reading schemes include the presence of many pictorial ones, and the need for pictures to be:-

- (a) colourful (younger children need stronger colours);
- (b) clear (not 'fidgetty' pictures), explanatory.

Display

I encourage display work throughout the school. Many areas of wall are shared and it is normal for teachers who share them to work to a theme. The teachers concerned get together to decide upon these themes and allocate tacks and spaces between themselves.

SCHOOL EXAMPLE FIELD NOTES

EXAMPLE OF RESPONSES TO GROUP INTERVIEW

PICTURES IN THE EARLY YEARS.		INTERVIEW		5	e
SCHOOL	<u>EAST STREET</u>	NAME	Group of Teachers (5).		
AREA	D	DATE	8.4.86	TYPE	Infants

COMMENTS

Short interview in staff room at breaktime (10 minutes)

Questionnaire

Section 3 (a)

Some uncertainty from two of the teachers about what 'metaphysical' meant in this context. When the observer had given a brief explanation both agreed that this was how they had taken it when completing the questionnaire.

General

The questionnaire was not too long.

Colour blind children can have problems in regard to pictures. Teacher needs to be sensitive in order to pick it up.

Section 3 (a)

One teacher was not certain whether the pictures referred to in this section included both wall displays and books, feeling that there are significant differences. However, agreed that the questions 'worked' for both.

Section 2

Question (b). The pattern of planning may vary day by day. All agreed that they 'needed a teacher formulated framework'.... but they would not be rigidly governed by it. 'It is not satisfactory to work without a framework' 'projects may be less formal'.

SCHOOL EXAMPLE FIELD NOTES

EXAMPLE OF QUESTIONNAIRE FOLLOW-UP INTERVIEW

PICTURES IN THE EARLY YEARS

INTERVIEW CONTINUED.

H.T.

2

a/e

Questionnaire (e)

Section II (a)

The teaching day in the First school has to be controlled because of the use of the hall, T.V., etc. where classes combined. To show our form of organisation I ticked box No. 4.

Section II (b)

Even with the most careful planning, it is necessary to allow for things that arise unexpectedly ... a need to pick up interesting things that happen. I ticked No. 2 to show this.

Section II (c)

Can be a mixture of both; a choice from both sides with teacher and child involved. I ticked box No. 3.

Section II (d)

Due amount of emphasis must be given to basic subjects at this time. I ticked four speaking for the school, but pushed to it she (H.T.) would place the emphasis upon social development.

Section III (a)

No problem in completing this section ... all questions are clear. H.T. found it necessary to add 'problem solving'.

Section III (b)

Had to re-read this section before deciding how to answer. The social/moral (v) discussion got the higher tick, issues are effectively dealt with using pictures.

Section III (d)

In this section most of the questions depend upon what you intend to use the pictures for. Where I gave a preference I was putting the emphasis on display.

Section III (e)

I reported myself as systematic but added a (?).

Section III (f)

It is important to note that there is a very wide range of functions for wall displays. Children's work is always valued and appreciated in the school displays.

PICTURES IN THE EARLY YEARS

INTERVIEW CONTINUED.

2	e
---	---

H.T.

Section III (g)

She (H.T.) found this section difficult to complete. From the Head Teacher's perspective it is not easy to know and age is so important. For example, they can understand ideas about say fear in assembly, but difficult to infer the depth of understanding or subtlety of it.

In relation to the third question more children are able to make maps at an early time, by taking things in, observing them closely, then producing the map, but the ways of showing individual items is often surprising. Maybe the differences are to do with pictorial conventions.

Mainly in this section I was forced to say that I didn't know.

Section III (h)

In general the H.T. did not discourage teachers from doing their own drawings. There were no problems in completing the section.

Section III (i)

She reported that she had strong views on both reading books and the quality of the pictures in them. First the 'quality' of the picture itself must be of the highest, secondly they must complement the text.

Layout is also important - clear, easy to read. The abstraction or otherwise of the picture does not really matter if the quality is high.

The twin aims in early reading are meaning and pleasure - whether pictorial context cues are needed depends upon the age of the children.

Section III (j)

'I ticked to show that I agreed with the question.' She felt that special educational needs in the first school was an important issue. Although pictures were important to all children they were a particularly useful aid in getting over specific problems, they could often get to a deeper level of understanding by working from pictures.

GENERAL

Parents do work in the school. For example, they will help the children in things like baking, or general things in the classroom. Some can help with administration work and others will help with tasks like sorting pictures and so on.

Parents are distinctly encouraged in the school.

SCHOOL EXAMPLE FIELD NOTES

PRE OBSERVATION INTERVIEW

(AYSTON)

PICTURES IN THE EARLY YEARS

INTERVIEW CONTINUED.

1	b
---	---

The method of teaching (say subtraction) doesn't vary a great deal, but where a child has difficulty I break the programme to go over earlier points.

Some recording by the pupils of language and number.

(Qc). Where ideas are forthcoming, I always listen. On the whole who takes decisions is variable... if children particularly enjoy a book then they can continue with it. A table might select their own book and I might vary it for individuals afterwards.

1/b

Intentions for Teaching Session

First the whole class will look at pictures in their books. (Group fluent with language).

Small group will look at slide viewer. Main intentions are for:
(a) children to use the machine, (b) the activity should hold their attention, (c) encourage some sharing.

I will watch reactions, which will vary individually... some may see the photographic errors... some may comment.

The remainder of class have already looked at these. Children may ask questions about the origins of the picture.

I will be satisfied if it holds their attention.

The rest on the table will be drawing, painting, or looking through magnifying glass.

No monitoring problems... the children doing basics will largely get on by themselves. I work it this way to give more attention to the group in question.

I usually have a group identified for priority attention.

SCHOOL EXAMPLE FIELD NOTES

CLASSROOM OBSERVATION

(AYSTON)

PICTURES IN THE EARLY YEARS		OBSERVATION		1	c
SCHOOL	<u>AYSTON</u>	NAME	Anne		
AREA	L	DATE	26/2/86		

TYPE OF OBSERVATION

Group of 6 children. 3 activities:

- (a) drawing/pictures (in corridor)
- (b) looking at magnifying glass
- (c) using slide projector (in pairs)

The observation concentrates on the use of the slide projector.

TIME	When children came back into class, all are asked to sit and look at the pictures in their books... They are allowed to talk to each other about these. Children mainly leaf through looking at pictures, with a good deal of showing them to other children, and talking about them... here and there some degree of excitement produced by pictures.
5m.	Teacher stops the activity and allocates tasks to individual groups.
8m..	Teacher briefly introduced group to how to make viewer work... gives viewer to T. Assures rest of group that they will all get their turn.
12m.	T begins to work the viewer. P takes slides out of box and hands them one at a time to T. Some discussion about 'wrong way round'. P. tests flexibility of slides. Blank slide is first viewed by T who often invites P, and girl using magnifier to look too.
15m	Teacher returns to 'see how things are going' - gives advice about holding the viewer... no fingers on pictures. T asks teacher 'is it a fire' (referring to a picture)... teacher tells him that it is a poorly exposed picture. Teacher asks 'do you think you could draw that?' No reply. T shows viewer to teacher commenting 'snow'... teacher replies 'yes snow'.
18m.	P examines each slide (without viewer) as he moves them between the box and the box top, from which T draws them for the viewer. The child opposite (without moving) takes a general interest in what T and P are doing... leaving her task with the magnifier. P appears to be pre-selecting pictures (without using viewer) for T to view. T passes viewer to P as though relinquishing ownership asks 'what have you seen' taking viewer back.

PICTURES. IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME

1	c
---	---

25m. Teacher comes across 'can you tell me what you've seen without putting the pictures in again? T replies 'a volcano'... Teacher 'that's a mountain in Scotland'.

T approaches observer 'look at that'... observer 'what is it?'... T 'don't know' (look again at greater length).. 'fields and snow'.

T moves off and repeats the process with another pupil.

35m. T having regained the viewer continues to look at each slide, but now more often shows them round to other children, on other tables. He treats a blank picture in the same way. He approaches a group of 4 (who are having milk) and shows the viewer to each in turn (all attend to it).

41m. P continues, through all this, to sort and stack the slides.

The two are joined by the girl who was using the magnifier... she attempts to look at the same time. She joins P in sorting the slides and looking at them without the viewer. She begins to suggest what should be looked at next.

47m. Identification comments appear occasionally 'thats a tree', but most language is concentrated on the order of priority for the slides.

T stops looking, but keeps viewer on desk in front of him.

T approaches observer again without viewer carrying a slide... 'look at that'... observer 'yes, what is it?' T replies 'a castle' (in fact it is a church).

51m

53m T sorts the slides with P - he still retains viewer. Girl attempts to take viewer - T does not allow this. He puts all slides into box and replaces the lid... puts this neatly together with viewer on the back of his desk. Goes off to speak to child from another group.

56m P takes slides and viewer, and begins to use it to look at slides.

End of session.

SCHOOL EXAMPLE FIELD NOTES

POST OBSERVATION INTERVIEW

(AYSTON)

PICTURES IN THE EARLY YEARS.		INTERVIEW	
		1	d
SCHOOL	<u>AYSTON</u> :	NAME	Anne
AREA	L	DATE	26/2/86
		TYPE	Response to observation.

COMMENTS

(T)

Response to small group slide viewer activity with a) using machine, b) maintaining attention, and c) snaring as objectives.

Surprised that the children stuck with it quite as long as they did.

P. seemed to have gained confidence to use the viewer afterwards (a quiet rather necessary boy).

Did result in some worthwhile language use.

Open-minded about the effects on group - girl tended to remain an on-looker... on the whole a harmonious activity.

Helped T socially... not only instruction in how to use the machine.

P learned by copying T, who taught himself to share... he is normally a flamboyant child who is self-centred in group situations.

I could now build a sequence of what to do for effective use of the machine.

The next step will be to categorise the pictures... which brings the activity back to maths.

A further lesson with the viewer could be used to extend language.

I deliberately left the ambiguous (poorly exposed and out of focus) so that pupils can see that teachers can make mistakes too... it helps imagination as well as they try to guess what they are.

The pictures concerned were not originally taken with a view to using them in class... merely practice in photographic techniques.

SCHOOL EXAMPLE FIELD NOTES

PRE OBSERVATION INTERVIEW

(CEASHAM)

PICTURES IN THE EARLY YEARS.

INTERVIEW CONTINUED.

JANE

3	b
---	---

The activity

Book to be used 'Alexe's Bed' (pen and water colour pictures, very full, 'realistic' style).

When asked whether it was chosen because it had some 'ambiguous' pictures the reply was no.

A problem solving approach to be employed, with planned questions for each page. Such as.... 'What is happening here?' 'Can you see the spider?'
A large part of questions look for observation skills.

What will be achieved

The objectives of the session will be achieved in terms of:-

- (a) The amount of language used by the children.
- (b) The extent to which they demonstrate an ability to observe features of the pictures.
- (c) The extent to which they are able to answer the questions in relation to each picture.

The activity will begin with a review of the story, which the children have met before, to test their memory of it.

SCHOOL EXAMPLE FIELD NOTES

CLASSROOM OBSERVATION

(CEASHAM)

PICTURES IN THE EARLY YEARS	OBSERVATION	3	C
SCHOOL <u>CEASHAM</u>	NAME	Jane	
AREA L	DATE	17/3/86	

TYPES OF OBSERVATION

Working from Picture book, with group of four children to develop language.

Behavioural signs of success will be in terms of

(a) Amount of language used in response to picture.

(b) Evidence of observation skills, and problem solving.

Children 1 = G, 2 = B, 3 = S, 4 = T.

	A	B	C	D	E	TOTAL
TIME 30 Second division	Repetition of words used by teacher or other children.	Words generated directly by the picture.	Words which demonstrate observation skills.	Responses to teaches questions spontaneously given.	Answers pressed for individually, and irrelevant language	TOTAL
	Activity begins by teacher carefully arranging the group in a close semi-circle. Following up children's previous learning of the story with questions to explain their meaning of it. Some time spent getting G to produce the word 'tall' instead of 'big'.					
30	1	3	3	2 3 3	4	7
30	2	1 3 1	3 2	3 2		8
30	1	1 1		3 1	4 1	7
30	1	2 2	1	4 4	4	7
30	1 1		2 3	4	1 2	7
30	1			4 2	2	4
30			3	1 2	2 4	5

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">3</td> <td style="width: 20px; text-align: center;">C</td> <td style="width: 20px;">Jane</td> </tr> </table>					3	C	Jane	Tot
	3	C	Jane						
A	B	C	D	E					
30	1 1	2 3 3	3 3 3	3	2 4 4	11			
30		3 2 2	2 3 4		1 1 4 1	10			
30	1 2 2	2 1 3	2 3 3	3 1	4 1 4 2	15			
30	3 1	3 3	3 3		1 1 3 3	10			
Sequenced pictured shown by teacher.									
30	1 1	4	3 1	2 3 3	4 3 4 3	12			
30		3 3 3 3	3 3 3	1 1 3	4 3 3 1 1 4	16			
	'1' rather restive.								
30	1 4 4	1	1 3	2 3 3	2 2 4	12			
30	4 1	1 1	3	3 1	2 2 3	11			
	'4' rather restive								

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>3</td> <td>C</td> <td>Jane</td> </tr> </table>					3	C	Jane	Tot
	3	C	Jane						
A	B	C	D	E					
30	1	1	1	3 2	4 1	7			
30		1 2	3	4 4	3 1 3	8			
30	1	3 2 3 2	3 1	3	2 2 1	11			
30	1	3 2	3 1	4 3 3	4 1	10			
30		1 3 3	1	3 1	4 1 2 4	10			
30	1 1	3 3	3	1	1 1	8			
30	1	3	3	3 3 3	4 4	8			
30			1 2 2		2 4 2	6			
12 ^r pretends to go to sleep.									
30	1 2	3 3	3 3	1	1 1	9			
30		2 2	2 3 2	3	2 4 4	9			

PICTURES IN EARLY YEARS

OBSERVATION CONTINUED

TIME	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 2px;">3</td> <td style="padding: 2px;">C</td> <td style="padding: 2px;">Jane</td> </tr> </table>					3	C	Jane	Tot
	3	C	Jane						
A	B	C	D	E					
30	3	1 3	1	3 3 3	1 2 3	10			
30	1	3	3 1	3	1 1 3 4	9			
30	2		3 4	1 1 3	1 4	8			
	1 = 22 2 = 5 3 = 2 4 = 0	1 = 12 2 = 12 3 = 25 4 = 1	1 = 10 2 = 8 3 = 28 4 = 2	1 = 11 2 = 7 3 = 25 4 = 7	1 = 23 2 = 16 3 = 11 4 = 25	<u>78</u> <u>48</u> <u>91</u> <u>35</u>			
	Tot = 29	Tot = 50	Tot = 48	Tot = 40	Tot = 75				

- 14 -

SCHOOL EXAMPLE FIELD NOTES

POST OBSERVATION INTERVIEW

(CEASHAM)

PICTURES IN THE EARLY YEARS.		INTERVIEW		3	d
SCHOOL	<u>CEASHAM</u>	NAME	JANE		
AREA	L	DATE	17/3/86	TYPE	FIRST

COMMENTS

Response to observations.
Immediately following session, in classroom.

General Evaluation

(Taken in terms of individual children.)

- G - successful, higher response rate than normal, with the quality of language used above average too. (He usually repeats or mimics a good deal).
- B - Disappointing - rarely volunteered a response, needs more work in the group situation. Ought to cope much better, but maybe out-faced by others.

'He didn't get out of it what I would have liked'.
- T - Managed positional language quite well throughout - was generally successful. Wait join in group sessions as a rule, hence joining in at all was significant.
- S - Waited his turn - was occasionally finding it difficult to focus.

Seemed to understand questions and made some interesting side comments.

The sequenced picture predictably proved a problem for him, hence he needed a good deal of help with it.

Teaching sequencing is important with children of this age. With most children they will start by taking pictures on facing pages to be one.

During the session would have liked to spend longer on 'open questions', but this tends to be controlled by the time it would take to get through the whole story. Open-ended questions take longer.

It is important to always complete a story.

Later on I will use this book (Alexe's Bed) with the whole class and take special note of the responses of this group.

(Book mentioned for quality of pictures.... which more delicately drawn water colour and pen, but otherwise realistic, with a good deal of emphasis on facial expression.

Bodeley Head (Pub.) 'The Patchwork Quilt'.

- 15 -
SCHOOL EXAMPLE FIELD NOTES

PRE OBSERVATION INTERVIEW

(GEE PARK)

PICTURES IN THE EARLY YEARS.		INTERVIEW		7	a/b
SCHOOL	<u>GEE PARK</u>	NAME	Valerie		
AREA	D	DATE	17.4.86	TYPE	Infant

COMMENTS

Classroom at lunch time - no children present (Teacher felt that tape would inhibit).

Old classroom with high (Edwardian) windows - square room.

Views about pictures and infant education in general

Younger children (present class is reception and year one mixed) need something to focus their attention on. Pictures are ideal in this sense.

The selection of pictures is very important to ensure that one gets just what one wants.

I mainly get pictures from children but also I collect any pictures that I find if they look as though they can be used at sometime. I just keep a stack of child eds' all together - don't break them down to individual pictures. I keep all the others in the cupboard organised in terms of topics according to planning for the year. Time is always the main problem for filing them.

Description of Activity

This will be a whole class (32) lesson. 'It will begin with a rhyme and then I will introduce the pictures of the spider - this should lead into a discussion' which will probably focus on fear.

We will then move on to a taped story.... Some of the children will then complete the booklet (A), and some will use photographs to do drawings of spiders... the photographs to look at and adapt.

The pictures used here come from the teachers resource room. They are child education pictures. 'Used as a stimulus'.

I will be looking for language and emotional responses.

If the children deviate for the planned programme I may or may not follow it up or may bring them back.

Observer should look for reactions.... in general terms.... enthusiasm, understanding, attention and so on for whole class. The class has one or two boys with attention difficulties, and one boy (Brian) with a distinct learning difficulty. He has impaired hearing and I will be using a neck mike today which hopefully will get round his problem.

It will be worth looking in general at the whole class and specifically at Brian.

Sequence of lesson

1. Rhyme (Incy, Wincy, spider).
2. Picture discussion.
3. Taped story.
4. Activity (booklet or drawing).

SCHOOL EXAMPLE FIELD NOTES

CLASSROOM OBSERVATION

(GEE PARK)

PICTURES IN THE EARLY YEARS		OBSERVATION		7	c
SCHOOL	<u>GEE PARK</u>	NAME	Valerie		
AREA	D	DATE	17/4/86		

TYPE OF OBSERVATION

See activity described in 7b.

Observation will pick up general impressions of whole class with the accent on emotional responses (particularly to the fear theme) and language. Whether children attend (Picture or Teacher).

Special attention to Brian (B) to monitor the degree of attention which he gives to each part of the lesson. Account of other types of participation too.

TIME	CLASS	BRIAN
1.34	<p>Teacher introduces visitor as someone who has come along to see them and the classroom. The whole class sit in a circle on the carpet facing the teacher and four large (24 x 18) pictures of common spiders magnified (photos) pinned to an easel blackboard.</p> <p>They recite the rhyme "Incy, Wincy, Spider".</p>	
1.38	<p>Teacher directs attention to the pictures by pointing and verbally. There is a good deal of stirring and quiet chatter, but no sign of any fear or even feigned fear response from any of the children. For nearly all of the children their attention returns to the teacher's face after only a few seconds looking at the picture.</p>	<p>B. paying attention to teacher.</p> <p>B. shifts attention to edge of carpet. Has not (apparently) looked at picture.</p>
1.41	<p>Teacher re-directs attention to picture and begins to ask questions about the details of it... e.g. 'What's in the web?' There are several tries before the word 'fly' is offered. Teacher pursues questioning until the correct answer, 'wasp' is given. The answers that are given tend to follow on the verbal clues offered by the teacher rather than anything in the picture itself.</p>	<p>B. turns to look at one of the children giving an answer.</p> <p>B. looks at picture, momentarily, but returns to looking at other children.</p>
1.43	<p>Teacher encourages children to talk about fear of spiders... 'Who is afraid of spiders?' almost all of the children raise their hands.</p> <p>One or two children produce non-verbal responses which seem to show fear in a fairly convincing way.</p>	<p>B. does not raise his hand, pays attention to those who are answering.</p>
1.45	<p>Children more or less take turns with the responses although here and there a reply will generate an excited babble.</p>	<p>B. rocks from side to side. Looks at carpet. Looks around.</p>

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	Valerie	
	7	c
	Class	Brian
1.49	<p>Occasional reference by teacher to picture to illustrate points of discussion. Progressively a smaller proportion of the children look at the picture when this happens. Most continue to look at teacher after the briefest of glances at the picture.</p> <p>The discussion makes fewer references to the picture and focusses upon the children's stories.</p>	<p>B. does not look at the picture when teacher indicates it.</p> <p>B. looks from one child to another.</p>
1.51	<p>A further poem is recited - all of the children participate.</p>	<p>B. does not participate.</p>
1.52	<p>Teacher asks 'Who likes spiders?' Creates a lot of talking together. Most children raise their hands to indicate that they like spiders.</p> <p>Many children call out, mainly to claim an affection for spiders... one or two claim the opposite.</p>	<p>B. no response.</p> <p>B. looks at floor, examines his legs.</p>
1.53	<p>Teacher prepares children for listening to the taped story. When they are quiet and facing in the right direction teacher turns the tape on.</p>	<p>B. looks around at observer, then at other children.</p>
1.54	<p>Children listen in silence ... One or two children give attention to classroom in general, or floor 'tracing' etc.</p> <p>None of the children actually look at the tape machine for more than a glance. Most have their eyes fixed on the teacher (who has moved away from the picture).</p>	<p>B. fiddles with hearing aid receiver.</p>
1.57	<p>Some restiveness, but no talking between children.</p>	
1.58	<p>Teacher questions children about the taped story. She holds up a book of the story when doing so. Questions tend to be precise, e.g. 'What was his name?' Only about 25% hands go up, replies come from only about 5 children.</p> <p>Hands and replies become more frequent as questions become less closed and precise.</p>	<p>B. looks at book held up by teacher for a short while. Looks around at other children.</p>
2.00	<p>For no evident reason one boy points at the pictures and announces that it is a spider.</p> <p>Teacher introduces the prepared work books. Holds the complete attention as she goes through page by page describing what is to be done.</p>	

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	Valerie	
	7	c
	Class	Brian
2.02	Children begin to move to their tables to begin work on the booklets.	B. makes no move.
2.03	A fair amount of excited working chatter as they begin, lay out crayons, arrange seats, and so on.	Teacher moves over to B. and checks something about the positioning of his hearing aid. She directs him to his table.
2.04	Most children have begun colouring by this time. Several children show uncertainty about what to do with cover picture of the booklet. Some have merely begun to colour it in. Teacher detects uncertainty and directs whole class to 'Draw a picture of a spider in the web'. About half of the children continue to colour it in without drawing a spider.	B. begins work, by turning over pages of the booklet. B. begins to colour in ... slowly.
2.06	There is no evidence reference made to pictures, which continue to be displayed. No children were observed to glance at the pictures during this period.	B. looks around at other children. Returns to colouring.
2.09	Some children begin to take finished first pictures to teacher. Lynn approaches observers with her spider drawing. It is coloured evenly black. When asked why this is so she replies, 'because that's what colour they are'. (The pictures show a common garden spider which is tan brown with extremely prominent sulphurous yellow spots.)	B. occasionally breaks off work to examine hearing aid. Looks at observer. Looks around other children.
2.11	Over this period two children seem to make reference to <i>pictures for their drawings</i> . Another child shows work to observer... this is also black (though probably too small to have been coloured).	B. is approached by another boy who speaks to him. B. does not respond.
2.14	About 6 children have completed cover drawing and moved onto next task... colouring in an outline drawing of incy, wincy spider. Another drawing brought to observer... seems to owe nothing to picture.	B. fiddles with ear piece of hearing aid. Looks at observer. (is possibly aware that he is receiving special attention). Returns to colouring.
2.16	Two boys approach display picture, touch it and talk excitedly - feigning fear. Most children have now moved on to colouring in the second sheet of the booklet.	B. does not take part in discussion of crayons which others on his table engage with. Speaks to another boy in a shout, loud and aggressive way. Looks around at children on other tables. Shouts, but in a short, incomprehensible way.

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME

Valerie

7

c

Class

Brian

2.18

Here and there talk about who has finished and how far people have got is evident.

B. looks around in a rather listless, distant fashion.

Most children working attentively. Most spend some time looking at the work of others.

Another child speaks to B., he responds briefly (inaudible to observer).

2.20

A procession of children begin to bring examples of coloured incy wincy to show observer. Although this is printed with the pattern of spots clearly visible, all children have coloured it in in a single colour 7 (black) 2 (purple). In response to question why, they tend to answer in terms of that being the colour spiders are, or do not respond to the question.

B. brings picture to observer, it is only partly completed. It has two bands of pink across a black body (not in correspondence with printed spots). The colouring is neatly done.

2.25

Some of these (2) have booklets that show their first drawing to have similar colouring to the display pictures. (No children refer to display pictures).

B. looks around in a distant way, tilts chair back.

More children bring coloured shapes to observer. With a large majority (about 80%) it is clear that the colours chosen correspond to the table they were sitting at. It emerges that two tables coloured black, one table coloured purple, and one table coloured particoloured (divided down centre) a range of combinations is evident here. No children acknowledged spots in the colouring.

Returns to colouring second sheet... slowly.

Looks around distantly.

2.35

Most children have moved onto last page.

B. colouring.

(No children are seen to refer to display pictures).

Looking at work of children nearby.

Children begin to bring last page to show observer. This is a sequence of four pictures.

B. gets up and moves to looking through window.

→



→



showing Little Miss Muffet.

B. returns to place begins colouring again.

First two children have coloured in a way which does not acknowledge that it is meant to be a sequence (although some recognition of 'correct' colours).

B. looks around, leaning back on chair. Continues to look around distantly.

(No reference is made to display pictures).

Chair almost falls over backwards.

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	Valerie	
	7	c
	Class	Brian
2.39	<p>A procession of children begins with their last page to show observer.</p> <p>None acknowledge sequenced nature of drawing by being consistent in colouring Miss Muffett's clothes, but some do choose same colours for tree and 'tuffet', and spider.</p>	<p>B. returns to colouring for short period.</p> <p>B. brings picture to show observer. This is still the second picture and still incomplete, although very neatly done. His colouring does not agree with group (plain red with pink bands).</p>
2.45	<p>(No children make reference to display pictures).</p> <p>Teacher announces that it is time to begin clearing up and gives instructions about how this should be done.</p>	<p>B. looks around distantly.</p> <p>Another child speaks to B. He does not respond.</p>
2.47	<p>Children begin to clear up in a fairly businesslike fashion. Some increase in noise.</p>	<p>B. makes no move to clear up.</p>
2.49	<p>The classroom is rapidly cleared, and children sitting quietly.</p>	<p>Other children collect in his crayons and drawings.</p>

General

It is notable that:

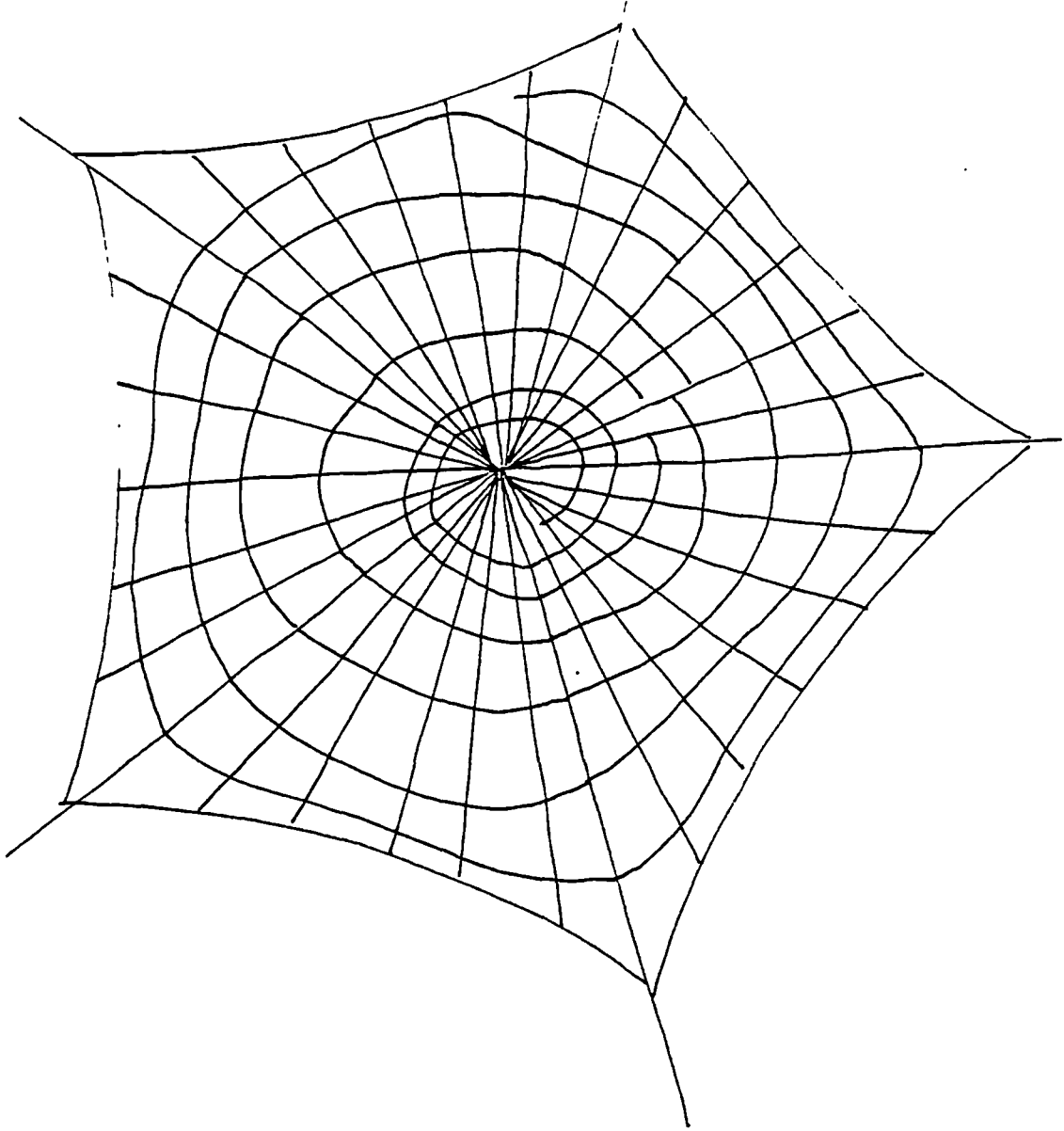
- (a) Only a small amount of attention was paid to display pictures, even when teacher was directly referring to them.
- (b) Few children made any subsequent reference to them and that only in relation to the first task.
- (c) No evident reference was made to them for all subsequent tasks.
- (d) The apparent influence on colour choice exerted by the groups.

Estimate of average class on task (colouring) time, 60-75%.

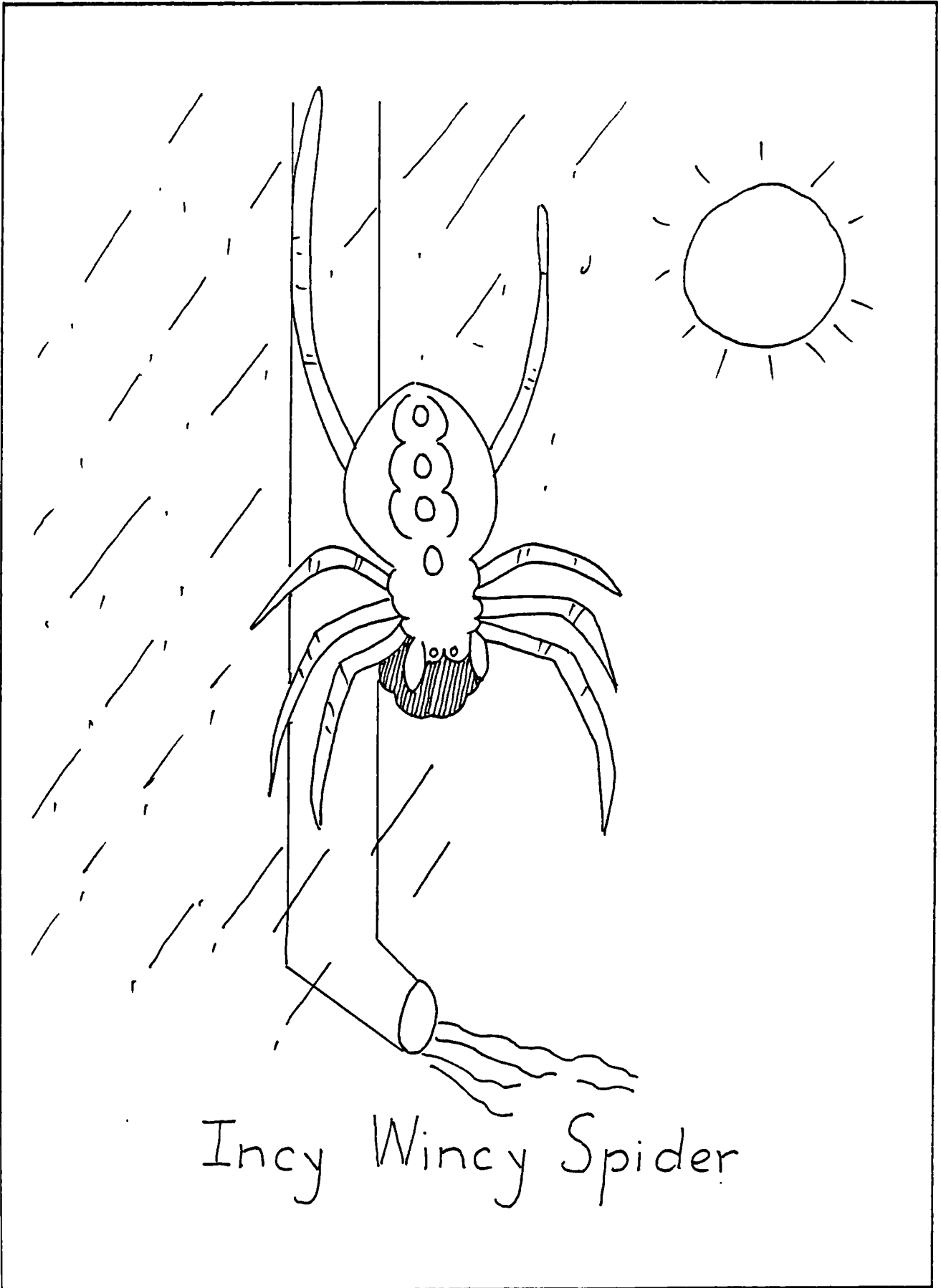
Estimate of B.'s on task (colouring) time, 20%.

SCHOOL EXAMPLE FIELD NOTES

'WORKSHEET' USED AT GEE PARK

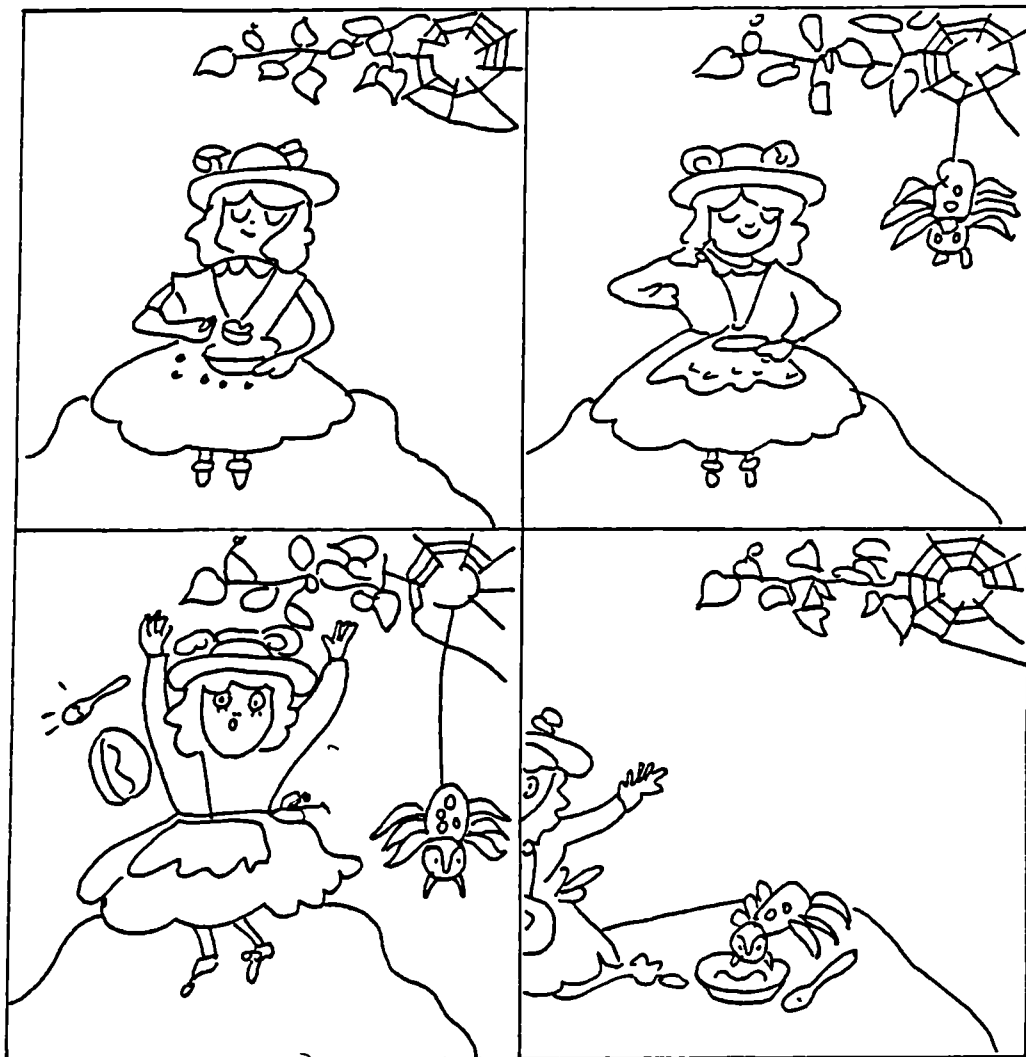


a spider's web



Incy Wincy Spider

Little Miss Muffet



SCHOOL EXAMPLE FIELD NOTES

PRE OBSERVATION INTERVIEW

(JAYLING)

PICTURES IN THE EARLY YEARS.		INTERVIEW		10	b/e
SCHOOL	<u>JAYLING</u>	NAME	Betty		
AREA	D	DATE	14.4.86	TYPE	Infant

COMMENTS

Interview in classroom at morning break.

Class contains reception and second year infants.

Activity after break (b)

Will use pictures to encourage language, especially number language, with a small group of children who are experiencing some 'minor' learning difficulties.

Will use the Ginn Maths - Big Book.

There will be four children in the group as follows:-

- (a) Michelle - some oracy problems but she is quite good at reading.
- (b) Paul - has just started at Christmas.
- (c) Kevin - is now in the second year and cannot yet read. He has been tested for dyslexia but this proved not to be the case.
- (d) Joanne - 'Just a little slow'. Her problems may be related to having a non-reading father. She is something of a day dreamer.

Useful form of observation would be to note the amount and quality of number words used by the children in the discussion.

Questionnaire (e)

Section 2

No problem in completing this section. My planning takes account of children's choices and the way that they differ in terms of speed of working and finishing rates to produce different patterns for each.

Section 3(g)

Much of the understanding of pictures in their early years tends to be linked to language.

There were no notable problems with any of the questions or sections.

Was able to complete it in ten to fifteen minutes.

SCHOOL EXAMPLE FIELD NOTES

CLASSROOM OBSERVATION

(JAYLING)

PICTURES IN THE EARLY YEARS		OBSERVATION		10	c
SCHOOL <u>JAYLING</u>		NAME	Betty		
AREA	D	DATE	14/4/86		

TYPE OF OBSERVATION

Teacher will use Ginn Maths - Big Book pictures to generate discussion with children (group of four with S.E.N. - see activity 10b).

The intention 'objective' is to get number and other words from the children.

Strict count of words of the types detailed below.

Children designated a, b, c, d.

TIME	<p>1 = A number word which has already been used by the teacher.</p> <p>2 = A number word which has not been used by the teacher or any of the other children this session.</p> <p>3 = Other talk of a non-mathematical nature which may be related to the talk in hand or not.</p> <p>4 = Words which are to do with questioning or exploring the matter in hand but not of a mathematical sort.</p> <p>Word may refer to a single word or to a phrase where that expresses a single individual semantic unit.</p> <p>The extent to which the utterances have been deliberately sought by the teacher via closed questioning, or are volunteered spontaneously by the children will be indicated by:-</p> <p>/ for directed replies.</p> <p><u>Number word</u> is taken to be anything of a broadly mathematical nature including references to weight, size, colour, other physical characteristics which might be described as 'set' making.</p> <hr/> <p>Each picture is a composite drawing with many objects based upon a theme naturalistically composed with a somewhat crowded scene.</p> <p>Children are brought together into a group near front of class when they return after play. They are seated in a semi-circle around the teacher who holds the pictures to be used.</p> <p>She introduces observer as somebody who has come along to watch.</p> <p>Reminds children that they have seen these particular pictures before, then moves directly into the activity.</p>
------	---

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

10	c
----	---

TIME

Children's responses.

	a	b	c	d	Comments
10.54	4		3- 3	4	Shows picture of a bedroom, and asks questions about names of objects, their locations and relative positions.
10.55	/3 /3	3 4	/4 /4	1	
10.56	/4 /3 2	4 2	3 /2 4	2	Teacher changes to picture of a caravan with associated items round about. General questions of identification, 'What is this a picture of?' leads rapidly to largely number and size questions.
10.57		2	/2 3 4		
10.58		1 /3	/2 /2 /3		
10.59	/2 /4 /4 /2		/2 3	/2 /2	
11.00	/2 /2	/2	/2	/2 /2	Teacher turns to a composite picture showing a range of natural objects, mainly animals, plants, and insects. Method continues to be first identify then count, occasionally some very simple addition and subtraction is part of the question.
11.01		2 1 /3	2 /3	/2	
11.02	/2		/3	/2	
11.03	/4 /4 /2		/2 3	/2	- 'd' points to answer first.
11.04	/2 /2	/2	/2	/2 /2	
11.05		2	2 3	/2	Teacher turns to a picture depicting dressing with a wide range of clothes illustrated. Same technique is used, greater tendency for teacher to identify a particular child to answer and pursue the question by offering more clues until the correct answer is received.
11.06		/2	3	2	
11.07		/3	3 3	2 3	
11.08	/2		4	/3	
11.09		/3	3 4		- 'd' points to answer.
11.10			/3 3	3	
11.11			4	4	Teacher turns to composite picture of animals and proceeds in same way.
11.12	/3 /1 /1 /1	/3 /1	3 /1 1	/1	
11.13			2	/3 /2	
11.14			4 3	/2	11.15
		/2	/2 3	/2	

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	Children's responses				Comments
	a	b	c	d	
					10 c
11.16			4		
11.17			3	3	
			2		
11.18	/1	/1	/1		
	/1	/1	/1	/1	Teacher turns to composite picture of sweets and confectionary.
11.19		4	4		Questioning much as before - greater concentration on number and identification only, few questions of size or location.
	/1		/2		
			/2		
11.20			/1		
			/2		
11.21			3	/1	
11.22			/3		
			/4		
			3		
			4		
	2		2		
	/1				
11.23			/2	/1	
				/1	
11.24		/2			
		/1		/2	
11.25		/2			
	/1	/1	/1	/1	Teacher turns to a picture of a gymnasium with a range of apparatus shown.
	/1	/1	/1	/1	Same procedure.
11.26			/1		
			3	3	
			3		
			4		
11.27			3		
		3	3	3	
	/1	/1			Teacher draws numbers in the air to give a clue. Invites answering child to do same.
11.28		/2			
	/2	/2			
11.29	/1		/3	/3	
			3		
11.30			3	/2	
	/2		/2	/2	Teacher turns to composite picture of aeroplanes. Continues as before.
11.31			/3	/4	
			/3		
			/3		
11.32	/1	/1	/2	/1	Teacher turns to picture of ships and submarines.
11.33	/2		/1		
	/2				
	/3				
11.34		/2	3	/2	
		/2	3	3	
11.35	2		4	2	
				/2	
11.36		/2	2	/2	Teacher turns to picture of balloons. Same questioning technique.
11.37	/2		/2		
11.38			/2		Teacher turns to picture of rockets and spaceships.
	/2				

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	Children's responses				Comments
	a	b	c	d	
11.39		/2	/3 /3 4	/3 4	Teacher turns to picture of birds nests.
11.40			4	3	
11.41	/2		/2 3	/2	Teacher turns to cartoon picture of elephants. Announces 'Last one now'.
11.42			3 4 4		
11.43			/3 4 3	/2	
11.44	/1	/1	/2 /2 3		
11.45			/2 3 /2	/3 /2	
11.46	/1 /2	/1	/1 /3 /4 /3 4 4	/1	Teacher tells children to return to their places.

10	c
----	---

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME

10	c
----	---

Tabulation of children's responses

	1	/1	2	/2	3	/3	4	/4	Total Undirected	Total Directed	Overall Total
Child a (Michelle)	-	15	3	17	1	4	1	4	5	40	45
Child b (Paul)	2	11	3	12	2	5	4	-	11	28	39
Child c (Kevin)	1	10	6	23	30	14	18	4	55	61	116
Child d (Joanne)	1	9	3	24	7	5	3	1	14	39	53
TOTALS	4	45	15	76	40	28	26	9	85	168	253

Comments

1. Not only does Kevin show the greatest number of utterances, but they are less directed than the others.
2. Considerable differences between directed/undirected utterances overall.
3. This is more extreme in the case of mathematical words and phrases.
4. Smallest category is exploratory/searching words and comments.
5. Maybe fewer words overall than one would expect in 52 minutes.
6. *Analyse in terms of time passage too.

SCHOOL EXAMPLE FIELD NOTES

POST OBSERVATION INTERVIEW

(JAYLING)

PICTURES IN THE EARLY YEARS.		INTERVIEW		10	d
SCHOOL	<u>JAYLING</u>	NAME	Betty		
AREA	D	DATE	14/4/86	TYPE	Infant

COMMENTS

In classroom when children have left more or less straight after period of observation.

General Evaluation

This was not quite what I wanted: there wasn't the amount of language coming from them that I would have liked. 'I had to work too hard to draw it out.' But in general seemed to hold their attention.

The pictures were O.K.

In response to initial analysis of observations showing different patterns between children

Kevin always shows a high level of curiosity and interest, but his reading is less than average. This is a cause for concern.

'On the picture vocabulary scale he performs normally for his age, yet he's the only child I've had who hasn't begun to read by this time.'

'I will need to take Paul and Michelle on their own.'

'I'm not too worried about Joanne. She likes to play, but can do good work when she is properly motivated.'

Michelle is a good counter and has very good written vocabulary for her age. 'The first week when I get a new class I let them just play... then they move into work.'

SCHOOL EXAMPLE FIELD NOTES

PRE OBSERVATION INTERVIEW.

(LEEMER)

PICTURES IN THE EARLY YEARS.	INTERVIEW	12	b
SCHOOL <u>LEEMER</u>	NAME John		
AREA L	DATE 29/4/86	TYPE Infant/Primary	

COMMENTS

In classroom.

(taped)

What activity do you intend

'I spy' with pictures.

Sets of pictures from the Ferrograph range will be used.

The whole class will be involved. Children take turns in 'spying'; children in the class put up hands to guess at answer. When it has been guessed the first child answers questions about their selection such as:-

Why did they choose it?

What else could they have chosen?

And the child who guesses correctly talks about how they managed to do it.

General discussion also happens spontaneously, and I (John) deliberately introduce matters for discussion as we go along.

Introduction of observer

Look at reaction of whole group in terms of:-

- (a) participation;
- (b) levels of interest;
- (c) enthusiasm;
- (d) amount of attentiveness - in terms of general impressions.

Three children deserve special attention:-

- 1. Andrew - seems to have concentration problem.
- 2. Dean - general learning difficulties.
- 3. Mark - bright, but not always co-operative.

These children can be specifically observed in terms of the amount of attention they give, and the quality of their involvement.

SCHOOL EXAMPLE FIELD NOTES

CLASSROOM OBSERVATION

(LEEMER)

PICTURES IN THE EARLY YEARS	OBSERVATION	12	C
SCHOOL <u>LEEMER</u>	NAME John		
AREA L	DATE 29th April, 1986		

TYPE OF OBSERVATION

General impressions of group (whole class) during 'I spy' activity concentrated upon attentiveness, and enthusiasm. Special observation of three children:-
1. Andrew, 2. Dean, 3. Mark (notes in interview b). Look particularly for:-

- (a) agreement/disagreement;
- (b) enthusiasm;
- (c) attentiveness.

The general impressions of whole group should be focussed upon the 'remainder' of group rather than those who are talking at any time.. (c) indicates that teacher sends control messages to group.

TIME		
13.06	Children enter classroom and sit in carpeted corner. Teacher introduces and explains the activity (with which they are familiar). Teacher begins by asking children to look at the picture and not say anything - then selects the first 'spyer'.	(c) (c)
	D. looking around. Silence from group as first viewing of the pictures. Andrew is chosen as the 'spyer'.	
09	Many hands (70%) to guess A's choice.	(c) (c)
10	Whole group with fixed attention on picture. Teacher takes up word 'Duster' with an explanation. Some tendency for children to kneel up to see picture better.	(c)
11	Next child selects the letter 'c' - response of 65% of hands. Whole group giving complete attention to picture and teacher.	(c)
12	Child makes no response to the 'why did you choose this?' question. A, D, H. all giving attention, but D is rather fidgetty. Teacher asks 'anything else beginning with 'C'?' 20% hands. Children begin to kneel up again. (Not part of game)	(c)
13	Next child selects 'D' - 96% hands. Group listen in silence to teacher's explanations. Teacher says he will have a turn - 'I will choose something hard'.	(c) (c)
	Noisy response to this. 70% hands in response to letter. All children concentrate on picture and teacher.	(c) (c)
17	Teacher explains aspects of the correct answer. Some 10% in attention during this. Noisy response to next incorrect answer.	(c) (c)
18	Teacher asks children to try again - 50% hands. A few children persist in raised hands, but most lower them. Teacher moves into same discussion of words firstly asking questions about grammar (40% inattention) then words as labels (20% inattention).	(c)

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME		12	c
21	Tracy gets the answer (a pencil) - the remainder of the children are excitedly noisy. Several raise objections to her answer, e.g., 'its a pen not a pencil', and 'I got it first'.		(c) (c) (c)
23	(Change of picture) Tracy picks the letter 'L' - 50% hands - There are two incorrect guesses made. 'D' had his hand up this time - he gives an incorrect answer. Hands reduce to 25% as incorrect answers continue. Children begin to become resitve. 'A' is inattentive.		(c) (c)
24	About 15% of children inattentive - including 'D'. More incorrect guesses are offered. (c) At last the correct answer is given. Teacher responds with praise 'Good boy, how did you get it?' There is no reply offered. 'How many times did you have to look?' No reply Teacher goes on to explain an approach to surveying the picture for objects with particular initial letters - about 20% general inattentive.		(c) (c) (c) (c) (c) (c)
26	Next child chooses 'T' - 65% hands - upon receiving an incorrect guess (wrong beginning letter) teacher asks 'Hands up if you can tell me what was wrong' - 25% hands - fair degree of inattentiveness while teacher decides who to ask.		(c)
28	Some boisterousness which grows with non-verbal signals for end of session, e.g., teacher shifting position, putting down pictures.		(c) (c) (c)

Comments by observer

Initial reaction to general relationship between amount of attentiveness and stimulus. (or demands of lesson):-

'I spy' questions - very high (90% plus)

Grammatical or phonetic instruction - Low

Direct questions to individual children such as

'why did you choose this?'

- Low both in terms of the amount of response elicited from individual child questions, and in terms of holding attention of whole group.

'Discussion' with group whose teacher attempts to elicit general comments other than 'I spy' guesses.

- Medium (about 50%)

Relationship between - enthusiasm and sort of activity were more or less in descending order as - 'I spy' questions --> 'Why was it wrong?' --> 'Look for other examples' --> grammatical/phonetic instruction or explanation --> 'Why was it chosen?'

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME

12

c

Specific children

A, and M did not stand out from the group either in terms of attention or enthusiasm.

D. was slightly noticeable in terms of a tendency to look round in a rather distant or absent way from time to time.

SCHOOL EXAMPLE FIELD NOTES

POST OBSERVATION INTERVIEW

(LEEMER)

PICTURES IN THE EARLY YEARS.	INTERVIEW	12	d
SCHOOL <u>LEEMER</u>	NAME	John	
AREA L	DATE	29/4/86	TYPE Primary

COMMENTS

Interviews conducted in classroom immediately after children leave for afternoon break (about 28 minutes after activity itself).

How did you feel it went?

John reported that on the whole he was pleased with the way things went. He felt that some of the things which he himself had introduced could have been easier.

On the whole the level of noise had been acceptable - 'In this sort of situation children can be too quiet'.

The quality of language had been good, and was often highly discriminating.

He reported that the children had generally done what he had intended, and responded in the way he would have predicted. There was, he noted, a wide variation in response between children.

The criteria for selection of the pictures used that they should be:-

- (a) big;
- (b) busy;
- (c) of a high level of clarity and detail preferably photographic.

The particular seminar had been focussed upon nouns ... on another occasion it might focus upon verbs, or adverbs.

John was surprised that A, and M, had been indistinguishable in the group in terms of attentiveness and involvement, and also at the number of control statements which he had used during the activity. He confided that this was a noisy group that were prone to get over excited rather easily.

SCHOOL EXAMPLE FIELD NOTES

PRE OBSERVATION INTERVIEW

(MIDLEY)

PICTURES IN THE EARLY YEARS.		INTERVIEW		13	a/b
SCHOOL	<u>MIDLEY</u>	NAME	Gill		
AREA	L	DATE	30.4.86	TYPE	

COMMENTS

Interview conducted in classroom. Spacious L-shaped, half carpetted area with a wide variety of different types of space and furniture within it.

(T)

General

Pictures are very important indeed with children of this age. We use them in many ways.

Displays are essential to make the classroom, colourful, welcoming and for teaching too. They should be on a particular theme. They are not at their best at the present time. We will make displays on the farm visit. (In response to q.) - They will be mainly in advance of the visit.

Pictures in books are important too. Two criteria for selecting books:

1. That they are attractive to children from appearance and story.
2. That they contain the right language levels.

Activity (to be observed)

This will focus around sets of picture cards made by Gill. Each contain a large clear (line and local colour mode) picture with a potential for a great many types of activity, including specified language and number work. They are normally used in a very responsive way in which the pupil may be asked to any of several activities depending upon their stage, and immediate response to the card in question.

It will be an exercise for 'older' children. The children who choose to do it (self-selecting) will join the group at the table, where they can pick their own card.

There will be:

- (a) some tracing work;
- (b) some colouring work;
- (c) some number work;
- (d) some discussion.

The group will be flexible, in which children will join or move away as they wish at any time.

PICTURES IN THE EARLY YEARS.

INTERVIEW CONTINUED.

Gill

13

a/b

How will teacher evaluate it?

Amount of concentration shown by children on the task itself.
Amount of effort they show.
Evidence of direct development of individual children from the end product.

Instructions to observer

Look for levels of interest.
Look for levels of involvement (actual time spent on task with cards).
The focus should be the cards themselves since it is legitimate for children to move freely into and out of the group. Look at this degree of movement too.

SCHOOL EXAMPLE FIELD NOTES

CLASSROOM OBSERVATION

(MIDLEY)

PICTURES IN THE EARLY YEARS		OBSERVATION		13	c
SCHOOL	MIDLEY	NAME	Gill		
AREA	L	DATE	30.4.86		

TYPE OF OBSERVATION

Picture cards are placed in boxes on the table. Teacher begins by sitting with children... will introduce children, who show an interest, to the activity. This will include some:

- (a) oral) The choice of which of these will be
- (b) number) mainly the individual child's.
- (c) drawing/colouring)
- (d) tracing)

Observation will include timed notes on:-

TIME		
	<ul style="list-style-type: none"> (a) amount of movement in and out of the group, with children identified by number G1, G2 etc., and B1, B2... (b) percentage of children in the group on task at sampled intervals. (TA) on attention to teacher; (c) observed interactions between children in the group and with teacher and others; (d) any specific verbal references to pictures themselves; (UP) (e) general impressions of the amount of productive activity in terms of above list (a-d). 	
	Children are numbered anticlockwise from teacher.	
13.48	Activity has been going for five minutes or so before observation begins 10 children in group (3 boys, 7 girls) 100% (TA) little talk between children.	Group Movement G1 moves away
49	70% (TA) - Conversation between teacher and one child about 'pullover'	G4 leaves group
50	50% (L) 20% (TA) - Teacher addresses whole group. 100% (TA) -	
51	70% (TA) - Teacher talks to two children	B3 leaves
cont'd	

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME				
	<table border="1" style="display: inline-table;"> <tr> <td style="padding: 2px 10px;">13</td> <td style="padding: 2px 10px;">C</td> </tr> </table>	13	C	
13	C			
		Group Movement		
13.52	Teacher gives directions to one child on number task - some interaction (UP) 10% (TA) Teacher praises work of G.10	G.11) Join G.12) Join G.2 leaves		
53	Teacher helps G.3 with tracing task 20% (TA) (UP) Some interaction between G.7, G.8, G.9. 60% (TA)			
54	Teacher praises work from child from another part of class. 20% (TA) Teacher moves to speaking to G.7 about her work. 90% (TA)			
55	Teacher talks to individual child about work and praises. 30% (TA) Teacher silent 70% (TA) B.2 and G.7 talk (about work?) (UP).			
56	Teacher silent. 80% (TA) G.5 interacts with passing child, G.7 and G.8 interact (not work).	G.6 moves away then returns		
57	Teacher directs B.2 and G.2 to find some item - they move away and do so bringing it back 50% (TA) Teacher praises 30% (TA) Some interaction between a number of children in the group.			
58	Door slams 90% children are distracted by this for sometime - considerable interaction 10% (TA) G.5 moves to lying across table 40% (TA)	G.7 moves off G.13 joins		
13.59	Teacher questions G.11 and G.12 about the contents of picture cards (VP) - both respond enthusiastically. 40% (TA) Teacher praises the work of G.5. 10% (TA) some interaction (excitement) between individual children.	B.4 Joins then B.5 Joins		
14.00	G.4 offers work to teacher, who praises lavishly. 10% (TA) Teacher talks to B.4 about task (VP) 80% (TA)			
01	70% (TA) As teacher talks to G.5 Teacher leaves group and moves to another part of classroom.	B.1 leave:		
02	This produces a degree of cross talk in group 20% (TA)	G.5 leave:		
03	60% (TA) G.4 talks to passing boy 80% (TA)			

PICTURES IN THE EARLY YEARS

OBSERVATION CONTINUED

TIME	13 C	Group Movement
04	100% (TA) This is interrupted by one child bringing work to snow observer. She returns to group.	G.11 leave B.6 Joins
05	100% (TA) One or two brief interactions with children but only for a few seconds each.	G.3 leave:
06	100% (TA) few interruptions. Another child brings work to observer. 900% (TA)	
07	Teacher returns to group. Is offered work by B.6 Praises child responds (VP) 40% (TA)	G.14 Join: G.15 Join:
08	Teacher prepares to move away.	

N.B. One girl (G.8) maintained (TA) for about 70-80% of the whole observation.

SCHOOL EXAMPLE FIELD NOTES

POST OBSERVATION INTERVIEW

(MIDLEY)

PICTURES IN THE EARLY YEARS.		INTERVIEW		13	d
SCHOOL	<u>MIDLEY</u>	NAME	Gill		
AREA	L	DATE	30.4.86	TYPE	Infants

COMMENTS

Interview in classroom when children had gone home (about 1½ hours after observation took place).

(T)

General evaluation

On the whole it was quite an effective session. There were one or two cases of children demanding rather too much attention from the teacher. We don't often have the picture cards out, so the children are not used to its requirements. Most children were enthusiastic.

What changes would teacher make?

'I may try to link the activity more to other activities, this might generate more discussion around the cards.'

'Some children showed distinct progress in terms of the things I wanted.'

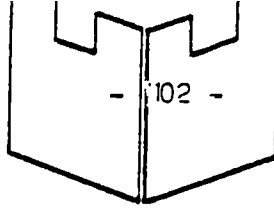
'The quality of verbal response was alright but not in every case.'

Teachers response to observation schedule showing what operated as distractions (in particular) that praise of one child seemed to be the thing which most distracted the rest.

'It is surprising'.

'Praise is so important that it must be done frequently, even if it distracts the rest of the group'.

'Yet there is a problem here that needs some thinking about'.



New College Durham

Principal - Leonard G. Bewsher, Dip. Ed. (Lond.), B.Sc. (Econ.), M.A., F.R.S.A.
Dean of Faculty - J. F. Risby, B.A., M.A. (Ed.), Ac. Dip. Ed.

FACULTY OF EDUCATION

Neville's Cross Centre * Durham DH1 4SY *

telephone 47325
extension 278

Dear Headteacher,

You may recall that when I visited your school I said that I would let you, and the teacher concerned see a copy of the notes that I had made. I now enclose these:decipherable but maybe somewhat incomprehensible. This is because I have largely left them in the form of the original notes, since they will be treated as raw data. Before I do so I would like you to have the opportunity to comment, so that I can make any alterations which you feel are appropriate. Any comments would be welcome; do they give the right emphasis? has something been missed? would you prefer that I removed something? Is there anything you wish to add?

I also enclose the notes from the teacher who helped me and hope that you will pass them on with the same invitation to criticise in general and detail.

You may find that a useful way to comment is to scribble on the notes where you feel that changes should be made, then send them back using the enclosed envelope. If I do not hear from you in the next few weeks I will assume that you have read the notes and find them an acceptable account of what was said and done.

I would like to reassure you that any reference to the interviews and observations that finds its way into the final report will be made quite anonymous, even if this means omitting demographic details which might reveal the school concerned.

Thank you for all your help.

Yours sincerely

Ron Brown.

SCHOOL EXAMPLES

COMMENTS MADE BY TEACHERS OTHER THAN
ON QUESTIONNAIRES AND SPECIFIC ACTIVITIES

1. RESOURCES

- There is a lack of proper picture resources - (2)
- Good, large pictures are difficult to find - (4)
- I take advantage of museum service - (1)
- I mainly get pictures from pupils - (2)
- I generally collect pictures - (5)
- I specifically collect pictures in advance of topic - (2)
- Picture sequence sets are valuable - (2)
- Make alphabetic boxes with pictures to which pupils have access - (1)

2. STORAGE/INDEXING

- Arranged by topics - (2)
- Main filing system is a good memory - (3)
- Stock of magazines (child ed.) not broken down - (2)
- Organise pictures in terms of a year's plan for topics - (1)
- Time is the main problem in producing an effective indexing system - (2)
- Classification is mainly alphabetical - (1)
- Have picture cards stored alphabetically by initial sound - children have access to these and use them casually - (1)

3. DISPLAY (GENERAL)

Functions for display:

For the deliberate generation of discussion	- (1)
To show 'real' art, in the adult sense	- (1)
To show the results of clean topics	- (2)
To show and support assembly topics	- (1)
To introduce new activities	- (3)
To introduce new topics	- (2)
To prepare for visits (4+)	- (1)
To follow up and record visits	- (3)

Value of displays:

Display is essential	- (3)
Display is important for teaching	- (1)
It makes classrooms 'colourful'	- (2)
It makes classrooms 'welcoming'	- (1)
Should have as much pupils' work as possible	- (3)
A variety of different types of display is important	- (2)

Organisation of displays:

What goes in depends upon my (teachers') taste	- (1)
I do arranging of displays	- (3)
Children play a large part in choosing things for display	- (1)
Children help in arranging	- (1)
Displays are organised around seasons	- (1)

4. VALUE OF PICTURES

Uses for pictures:

- To support language development - (3)
- To support topic work in general - (1)
- A wide variety of uses - (2)
- For the development of taste (linked to showing adult art) - (1)
- For enjoyment - (1)
- Instead of real things (or events) which are not present - (3)
- To backup visits - (2)
- To complement experiences - (2)
- For ideas in general - (1)
- For the teaching of colour - (1)
- As a stimulus for reading - (2)
- To encourage talking and discussion - (4)

General values

- Pictures should be used in as many different ways as possible - (1)
- Still pictures are being taken over by TV. - (1)
- I don't use pictures as much as I used to - (1)
- Pictures are very important at this age - (3)
- I have a personal love of pictures - (1)
- I don't use pictures that I consider to be in bad taste (refers to subject) - (1)

5. APPROPRIATE ACTIVITIES WITH PICTURES

- Children look at the pictures and say what they are thinking, this leads to discussion - (1)
- One child begins a drawing, it is passed on to another to take further, then to another and so on until completed. The final, finished picture leads to discussion. - (1)
- Picture sequence sets are very useful - (2)
- I use pictures for initial sounds - (1)
- Children sort pictures from the boxes - (1)
- Children sort and arrange pictures that have same initial sound - (1)

6. TEACHER-MADE PICTURES

- Difficult to know what effect personal drawing has on the children - (1)
- Occasionally I make drawings on the blackboard for children to simply look at - (1)

7. CRITERIA FOR PICTURES

In general:

- Highly abstract pictures are not shown to the children - (1)
- Pictures should be colourful - (1)
- Pictures should be non-ambiguous - (2)
- They should be in good taste; this means in the teachers' terms - (1)
- Simple line drawing is good because it is not ambiguous - (1)
- With the young ones picture should not be too 'busy', it can be confusing - (1)
- Careful selection of pictures is needed - (2)
- I collect everything that I can - (4)
- I look for big pictures - (3)
- Anything, if its clear and attractive - (1)

Criteria for book illustration:

- The pictures should be as attractive as the story is - (1)
- The things illustrated must be in the text - (1)
- They must contain the 'right' level of language - (1)

COMMENTS MADE BY HEADTEACHERS AT INTERVIEW
OTHER THAN DIRECT REFERENCES TO COMPLETION OF QUESTIONNAIRE

1. RESOURCES

Picture Loan service:

- do use - (7)
- don't use - (3)
- do use but not good enough - (3)

Responsibility for display:

- no scale post - (9)
- scale post II - (4)
- 'Team' responsibility - (4)
- should be senior person responsible - (2)
- H.T. co-ordinates display work - (5)

Central picture library:

- There is one - (7)
- There is none - (1)
- Some money allocated - (3)
- Central systems encourage old pictures - (1)
- There are not enough pictures to be had - (2)
- Pictures (via ed. sources) are very costly - (3)
- Teachers tend to provide own pictures - (5)

2. STORAGE/INDEXING

Indexing systems:

- Experience difficulty in classifying - (3)
- Intend to classify with books - (2)
- Classifying by themes only - (4)
- Classifying by subjects only - (1)
- Classifying by mixed (above) - (6)
- Important to know what there is - (1)
- No classifying systems at all - (2)

Storage:

- Problems in getting teachers to return them - (2)
- Shortage of space - (2)
- Shortage of cabinets, etc. - (3)
- Teachers have own collections - (4)

General:

- Central pictures systems exploit resources - (1)
- Need to keep collections up to date - (1)
- Don't keep pictures - they get old and stale - (1)
- Need to have bigger 'picture bank' than ever - (1)

3. DISPLAY (GENERAL)

Functions for display:

Would like more display given to maths	- (1)
Language stimulation	- (1)
Displays should help teachers explanations	- (1)
Displays should ask children questions	- (2)
Displays should be decorative	- (3)
Displays should develop aesthetic awareness	- (2)
Displays should enrich experience	- (4)
Displays should be rewarding (classwork)	- (4)
Displays should originate and develop themes	- (3)
Displays should cause identification with class	- (1)
Sub-conscious learning which washes over	- (2)
Displays should inform	- (1)
Display is more than motivation and recognition	- (1)
Displays should be functional	- (1)

Value of displays:

Display is of great importance	- (2)
Class themes should start through the aesthetic	- (1)
Display should contain much 3D	- (2)
Careful labelling is important	- (3)
There can be too little and too much labelling	- (1)
Relevance to ch. experience is important	- (1)
Teachers' interests should be represented too	- (1)
Teachers' own work helps overall effect	- (2)
Display should be based around themes	- (1)
Display should arise out of classwork	- (1)
More non-figurative adult work needed	- (1)
Should be mainly children's work	- (3)
Adult work should not dominate	- (2)
A blank wall affects both children and teachers	- (1)
A school without displays is depressing	- (1)

Organisation of displays:

Class displays feed into central hall library	- (1)
Displays very important in library	- (3)
Displays spill over from classrooms	- (3)
Public displays come from classrooms	- (2)
Each class takes turns with public areas	- (2)
Areas get shared by designated teachers	- (2)
Teachers get together and allocate spaces	- (1)
Each public area has theme for half-term	- (3)
Use of corridor space is important	- (1)
Pairs of teachers plan displays together	- (2)
Thematic link with morning assembly	- (4)
Display trolley for public spaces	- (1)
Necessary for teachers to select work	- (1)
Displays transfer from class to corridor	- (1)

Pupils' responses:

When maths and science the theme ch. are interested	- (1)
Children's attention must be drawn to displays	- (2)
Children talk about displays when teachers not present	- (1)

Miscellaneous comments:

- Creative approach leads to children thinking for themselves - (1)
- Children should be able to see adults drawing - (2)
- The cost of displays is significant - (1)
- Room has become available for more display - (1)
- H.T. has special 'reward' display board in office - (2)
- Strong display teachers help weaker ones - (1)
- Subjects should include seasons and TV follow-up - (1)

4. VALUE OF PICTURES

- Important for cognitive development - (2)
- Crucial in the early years - (7)
- Important for giving information - (1)
- Important for creating atmosphere - (2)
- Important in a number of ways - (3)
- Important for enrichment - (1)
- A picture has a value if it has an end product - (1)
- Need for pictures to hold the attention - (1)
- Pictures in reading schemes are as important as the text - (2)
- They offer flexibility of use - (1)
- Pictures are important because it is a visual age - (1)

5. CHILDREN'S RESPONSES TO PICTURES

Understanding of pictures:

- Pictures work for all children - (1)
- Busy pictures can distract young pupils - (1)
- Most infants are too young to show an appreciation of art - (1)
- The age of children is important in selecting the appropriate picture - (1)

Preference for pictures:

- Children like to see many pictures - (1)
- They prefer the photographic image - (1)

7. SCHOOL POLICY

About display:

Have a distinct policy on display	- (4)
Have no distinct policy on display	- (6)
All displays to be uniformly labelled	- (1)
Place emphasis on language in displays	- (1)
Teachers selected at interview with display abilities in mind	- (1)
Teacher constructed 'stimulation' displays lead to ch. follow-up	- (1)

Four points of display policy

1. all work goes up	- (1)
2. not left up too long	
3. much should be instructional	
4. work presented on topics	

Parental involvement:

Parents are encouraged in school	- (2)
Parents help but don't teach	- (4)

8. H.T. INFLUENCE ON PICTORIAL CLIMATE

Response to the imaginary situation of having a teacher who didn't use wall displays (given that they had an educational rationale for not doing so).

I would not allow it at all	- (3)
I would heavily discourage it	- 85)
I would see if they grew out of it and stop them later if they didn't	- (2)

Things which are openly approved of:

Using pictures to develop prediction skills	- (2)
Teamwork between teachers in the use of pictures - especially display	- (4)
Encouraging classroom displays to move to public areas (when selected)	- (3)
Generally encouraging display	- (6)
Not using too many commercial pictures	- (2)
Using mainly children's work	- (5)
Preferring commercial pictures brought in by children over others	- (1)
Children seeing the art work of other classes	- (2)
Generally encourage the use of pictures in all contexts	- (2)
Not displaying things for the head's benefit	- (1)
H.T. removes books which do not have good pictures	- (1)

9. APPROPRIATE ACTIVITIES FOR CHILDREN

- Using pictures to develop listening skills via descriptive techniques - (1)
- Pictures being used to depict from - (2)
- Completion of stories shown in pictures - (2)
- Matching games with pictures - (3)
- Sequencing games with pictures - (4)

10. OTHER ACTIVITIES

- Demonstrations of using picture books for parents given by reception teacher - (1)
- Teachers should draw things in front of the children - (2)

11. CRITERIA FOR PICTURES SELECTION

In general:

- Pictures should have subjects that are within pupils' experience - (2)
- Pictures should demonstrate different artistic effects - (1)
- Pictures should contain much information - (2)
- Commercial pictures may only be chosen if you cannot do the same job with a child's picture - (1)

For book illustrations:

- There is a need for artistic (stylised work) work - (1)
- Avoid 'scribble' pictures - (2)
- Need for many pictorial cues - (2)
- The more colourful the better - (3)
- Pictures should not be 'fidgetty' (Overly detailed and confusing) - (2)
- Book illustrations need to be explanatory - (3)
- Wordless books must have realistic pictures - (1)
- Pictures in books are as important as text - (1)

12. FUNCTIONS FOR PICTURES IN GENERAL

- Primary use is as 'starting points' for work - (3)
- Most important for extending visual experience - (2)
- First hand experience always better than pictures - (2)
- Children should see proper art work in order to develop taste - (2)
- Development of language is most important use of pictures - (4)

COLLATION OF OBSERVATIONS OF WALL DISPLAYS

1. PRESENTATION

Overall

Coverage of walls	-	%	0	-	0
			20	-	0
			40	-	0
			60	-	5
			80	-	6
			100	-	2

—
13
—

Consistency of organisation	-	low	-	2
		medium	-	1
		high	-	3

Consistency between classes	-	low	-	4
		medium	-	3
		high	-	6

*Height of displays - only one example of restriction of height with pupils' eye level in mind.

*Use of windows - only two made conspicuous and 'appropriate' use of windows as part of display.

Predominant means of grouping	-	around themes	-	5
		via colour	-	7
		via spacing	-	3
		via labelling	-	2
		none	-	4
				—
				21
				—

Amount of 'linking' of displays	-	low	-	10
		medium	-	5
		high	-	2
				—
				17
				—

Colour balance between displays	-	low	-	5
		medium	-	0
		high	-	3
				—
				8
				—

General impressions	(a)	-	liveliness	-	exciting	-	2
				-	dull	-	5
				-	neither	-	7
							—
							14
							—

General impressions	(b)	-	clarity	-	confused	-	7
					clear	-	5
					neither	-	2
							—
							14
							—

Individual displays

Amount of labelling	-	low	-	7
		medium	-	2
		high	-	9
				—
				18
				—
Neatness of displays	-	low	-	6
		medium	-	3
		high	-	7
				—
				16
				—
Level of 'finish'	-	low	-	6
		medium	-	2
		high	-	8
				—
				16
				—
Uniformity of lettering	-	low	-	5
		medium	-	1
		high	-	4
				—
				10
				—

Amount of mounting	-	low	-	6
		medium	-	5
		high	-	4
			—	15
Main characteristics of composition	-	repetition	-	6
		sequence	-	1
		dynamism	-	4
		fragmentation	-	7
Presence of 'tableaux'	-	none	-	5
		low	-	2
		medium	-	3
		high	-	11
			—	21
Presence of 'collections'	-	none	-	0
		low	-	4
		medium	-	3
		high	-	9
			—	17

Presence of 'matrices' (multiple) -	none	-	6
	low	-	5
	medium	-	1
	high	-	6
			—
			18
			—
Presence of 'matrices' (example) -	none	-	1
	low	-	3
	medium	-	6
	high	-	2
			—
			11
			—
Main use of public spaces -	overspill	-	4
	separate	-	6
	mixed/neither	-	5
			—
			15
			—
Variety of format -	low	-	3
	medium	-	1
	high	-	7
			—
			11
			—

2. PRODUCTION

Materials

Presence of 3d work	-	none	-	2
		low	-	7
		medium	-	4
		high	-	2
				—
				15
				—

Main media (pupils' work)	-	mixed	-	3
		collage	-	3
		crayon	-	2
		paint	-	9
		line	-	1
		none	-	2
				—
				20
				—

Picture size	(Pupils' work)	(Commercial work)
(Less than A3)	small - 6	small - 1
(A3 - A2)	medium - 3	medium - 6
(A2 +)	large - 3	large - 2
	—	—
	12	9
	—	—

Age of work	recent	-	7
	(re-used) old	-	4
			—

Amount of pupils' work	-	%	0	-	0
			20	-	4
			40	-	4
			60	-	8
			80	-	5
			100	-	3
					—
					24
					—

Amount of commercial work	-	%	0	-	3
			20	-	4
			40	-	7
			60	-	4
			80	-	3
			100	-	0
					—
					21
					—

Amount of written work	-	%	0	-	2
			20	-	6
			40	-	3
			60	-	2
			80	-	1
			100	-	0
					—
					14
					—

Involvement

Pupils' contribution to selection	-	none	-	9
		low	-	6
		medium	-	0
		high	-	1
				—
				16
				—

Pupils' contribution to arrangement	-	none	-	12
		low	-	2
		medium	-	2
		high	-	1
				—
				17
				—

Presence of collaborative work	-	none	-	1
		low	-	3
		medium	-	4
		high	-	6
				—
				14
				—

Accessibility to pupils	-	none	-	6
		low	-	5
		medium	-	1
		high	-	1
				—
				13
				—

Teacher design/drawing	-	none	-	3
		low	-	1
		medium	-	2
		high	-	10
				—
				15
				—

Amount of 'component manufacture'	-	none	-	4
		low	-	1
		medium	-	4
		high	-	9
				—
				18
				—

3. CONTENT

Representation

Amount of 'figurative' work	<u>Pupils</u>	<u>Commercial</u>
none	- 0	none - 0
low	- 0	low - 0
medium	- 5	medium - 0
high	- 9	high - 14
	—	—
	14	14
	—	—
Amount of phtographic work -		none - 0
		low - 0
		medium - 3
		high - 9
		—
		12
		—
Main sort of labelling -		questioning - 2
		naming - 12
		explanation - 3
		suggestive - 1
		—
		18
		—
Types of question asked -		open - 2
		closed - 8
		—
		10
		—

Subject

		<u>Pupils</u>		<u>Commercial</u>	
Relevance to pupils experience	none	-	4	none	- 6
	low	-	4	low	- 6
	medium	-	7	medium	- 4
	high	-	1	high	- 2
			—		—
			16		18
			—		—
Predominance in broad function	-		decorative	-	10
			instructional	-	6
					—
					16
					—
Suggestive of activities to do	-		none	-	8
			low	-	5
			medium	-	0
			high	-	3
Originality of pupils work	-		original	-	5
			copied	-	7
			mixed	-	5
					—
					17
					—

Predominates subjects (commercial)	-	fairy tales		
		animals/nature		
		mathematics		
		landscape		
		history		
		health/hygiene		
		none/mixed		
		letters/words		
Relationship with classwork	-	none	-	4
		low	-	8
		medium	-	3
		high	-	2
				—
				17
				—
Interactiveness with present work	-	none	-	5
		low	-	9
		medium	-	2
		high	-	2
				—
				18
				—

Intentions

Clarity of intentions (as seen)	-	none	-	0
		low	-	6
		medium	-	2
		high	-	5
				—
				13
				—

Specificity of function (as seen)	-	none	-	4
		low	-	2
		medium	-	4
		high	-	2
				—
				12
				—

Predominant function (as visible)

recording/celebrating visits	-	3
introducing activities	-	2
publicising pupils' work	-	12
illustrating writing	-	2
general decoration	-	8
stimulation to activity	-	3
explanation/instruction	-	5
		—
		37
		—

N.B. More than one focus may be evident within a single display area.

Correspondence with stated intentions	-	none	-	0
		low	-	4
		medium	-	0
		high	-	6

—
10

The total number of observations made	=	26
classrooms	=	16
public spaces	=	10

RB/AG

3rd April, 1987

SCHOOL EXAMPLES

Summary of statements of intention for observed activity

<u>Activity</u>	<u>Intentions</u>
<u>School 1, AYSTON (Anne)</u>	
Three children with slide viewer TIME: 56 minutes AGE OF CHILDREN: 5-6	(a) Ability to use the slide viewer itself (b) Holding attention (c) Encourage some sharing
<u>School 2, BEESER (Celia)</u>	
Whole class doing a range of art work TIME: 39 minutes AGE OF CHILDREN: 8-9	(a) Observation skills (b) Language skills
<u>School 3, CEASHAM (Jane)</u>	
Group of children with language difficulties Teacher-led discussion of picture book (Alexe's Bed) TIME: 14 minutes AGE OF CHILDREN: 5-6	(a) Revise words 'where', 'what' (b) Help positional language (c) Observation skills
<u>School 6, FESTINGLY (Irene)</u>	
Whole class, but one child only observed Free selection and completion of picture puzzles TIME: 22 minutes AGE OF CHILDREN: 6-7	(a) Ability to choose a puzzle (b) Ability to correctly complete a puzzle (c) Excitement and interest (d) Language, via children helping each other
<u>School 7, GEE PARK (Valerie)</u>	
Whole class work through discussion to completion of work cards. One child with hearing problem observed in parallel TIME: 75 minutes AGE OF CHILDREN: 4-5	(a) Use of language (b) Variety of emotional response
<u>School 10, JAYLING (Betty)</u>	
Group of four children with some learning difficulties Teacher-led discussion of Maths picture book (Ginn) TIME: 52 minutes AGE OF CHILDREN: 6-7	(a) Development of number words (b) Language in general

Activity

Intentions

School 11, KAYTON HALL (Mary)

Small group of 'poorer' children (a) Development of language
Teacher-led discussion about large (b) Increase in vocabulary
picture of a tiger
TIME: 23 minutes
AGE OF CHILDREN: 6-7

School 12, LEEMER (John)

Whole class involved in 'I spy' (a) Language development
game using large 'Ferrograph' (b) Observation
pictures (c) Involvement with task
TIME: 22 minutes (d) Discussion
AGE OF CHILDREN: 7-8

School 13, MIDLEY (Gill)

Shifting group of initially (a) Tracing work
eight children, engaged with (b) Colouring
prepared workcards. Teacher (c) Number work
present at table (d) Discussion
TIME: 20 minutes
AGE OF CHILDREN 4-5

SCHOOL EXAMPLES

Summary of teachers' evaluation of observed activity (d)

School 1, AYSTON (Anne)

- | | | |
|-------------------------------|-----|---|
| In general | (a) | Surprised that children stuck with it |
| | (b) | (One child) gained skills in using viewer |
| | (c) | Worthwhile language |
| | (d) | Helped group cohesion |
| | (e) | Helped (one child) socially |
| | (f) | Helped development of imagination |
| In response
to observation | (a) | Some evidence of sharing but not much |
| | (b) | Group coherence doubtful |
| | (c) | Future lessons with viewer to extend language |
| | (d) | Next step to categorise pictures |

School 2, BEESER (Celia)

- | | | |
|-------------------------------|-----|---|
| In general | (a) | Children worked well |
| | (b) | (One child) did not apply himself |
| | (c) | Presence of observer distorted activity |
| | (d) | Need to spend more time on colour mixing |
| In response
to observation | (a) | We didn't get into much discussion |
| | (b) | Will go back over same work to generate more talk later |

School 3, CEASHAM (Jane)

- | | | |
|-------------------------------|-----|---|
| In general | (a) | (One child) higher response rate than usual |
| | (b) | (One child) higher quality of language than usual |
| | (c) | (One child) rarely volunteered anything |
| | (d) | (One child) managed positional language quite well |
| | (e) | (One child) better 'joining in' than usual |
| | (f) | (One child) waited his turn |
| | (g) | (One child) found it difficult to focus |
| In response
to observation | (a) | Sequenced pictures predictably proved a problem for one child |
| | (b) | (One child) seemed to understand questions (not implied only one) |
| | (c) | Would have liked to spend longer on 'open questions' |
| | (d) | Later same book will be used with whole class |

School 6, FESTINGLY (Irene)

- In general (a) Most people getting on with it
(b) (Specified child) did not have difficulty except in putting things away
- In response to observations (a) Not surprised how little language used by specified child
(b) He didn't finish puzzle for himself
(c) Pleased that so many children wanted to help
(d) He tends to lose interest quickly
(e) General discussion of possible reasons for specified difficulties

School 7, GEE PARK (Valerie)

- In general (a) Children normally more responsible
(b) Less language than expected
(c) Some improvement in whole class for language but not in this session
(d) Presence of group from another class may have affected things
(e) Specified child did quite well: better standard of work than usual
- In response to observation (a) Surprised that he (specified child) was so inattentive
(b) Still considered him better than usual in respect of time on task

School 10, JAYLING (Betty)

- In general (a) Not quite what was wanted
(b) Insufficient language generated
(c) In general held their attention
- In response to observation (a) (One child) always shown high level of curiosity
(b) Will need to take (two specified children) on their own
(c) Not worried about a child shown as little involved - 'she likes to play but can do good work'
(d) (One child) is a good counter

School 11, KAYTON HALL (Mary)

- In general (a) Not a normal response
(b) Various things to account for a low response from children are listed
(c) Can be summed up as worthwhile
(d) All sorts of things will come out it
(e) (One child) spoke most - unusually
(f) (One child) was distractable, because he is youngest in the class
- In response (a) Two children shown to say little - 'normally have more to say for themselves'
(b) (One child) is beginning to settle down
(c) Less language than expected
(d) Activity opens up possibility for many other things to come from it

School 12, LEEMER (John)

- In general
- (a) Pleased with the way things went
 - (b) Level of noise was acceptable
 - (c) Quality of language had been good
 - (d) Wide variation in response between children
- In response to observation
- (a) Surprised that the two specified children had been indistinguishable in terms of attentiveness
 - (b) Surprised at number of 'control statements' which he had used
 - (c) This is a noisy group
 - (d) The group gets over excited too easily

School 13, MIDLEY (Gill)

- In general
- (a) Quite an effective session on the whole
 - (b) Some children demanded too much attention
 - (c) Don't often have the picture cards out - hence children not used to the activity
 - (d) Most children were enthusiastic
 - (e) In future would link it more to other activities - may generate more discussion
 - (f) Quality of verbal responses alright, but not in every case
- In response to observation
- (a) Surprised at teacher praise proving to be the main distracter
 - (b) Praise is so important, that it must be done frequently, even if it distracts the rest of the group
 - (c) A problem here that deserves thinking about

REFERENCES

- Adelman, C., Jenkins, D. and Kemmis, S. (1977) 'Rethinking case study' IN J. Bell (ed) Conducting small-scale investigations in educational management. London. Harper Educational.
- Alexander, R. J. (1984) Primary Teaching. London. Holt, Rhinehart and Winston.
- Althusser, L. (1980) The Politics of Culture; one Dimensional Marxism. London. Allison and B.
- Arnheim, R. (1974) Art and Visual Perception; a Psychology of the Creative Eye. The New Version. University of California Press.
- Ashton, P., Kneen, P., Davies, F., and Holley, B. J. (1973) The Aims of Primary Education; a Study of Teachers' Opinion. London. Macmillan Education.
- Ashton, P., Kneen, P., Davies, F., and Holley B. J. (1975) The Aims of Primary Education: a Study of Teachers Opinions. London. Macmillan Educational.
- Ashwin, C. (1979) The ingredients of style in contemporary illustration: a case study. Information design Journal. 1, 51-67.
- Auld, R. (1976) William Tyndale Junior and Infants' School Public Inquiry. London. ILEA.
- Aupecle, M. (1978) Des images pour apprendre a ecrire (Pictures in learning to write). Francais dans le Monde. 137, 57-62.

Ausubel, D. P. and Robinson, F. G. (1971) School Learning. London. Holt, Rinehart and Winston.

Bacharach, U. R., Carr, T. H. and Mehner, D. S. (1976) Interactive and independent contributions of verbal descriptions to children's picture memory. Journal of Experimental Child Psychology. 22, 492-488.

Baine, D. (1982) Using Pictures to Teach Concepts to Handicapped Learners. Special Education in Canada. 56, 3, 19-21.

Barker-Lunn, J. C. (1970) Streaming in the Primary School, Slough. N.F.E.R.

Bassey, M. (1978) Nine Hundred Primary School Teachers. Slough. N.F.E.R.

Bassey, M. (1984) Pedagogic research: on the relative merits of search for generalisation and study of single events IN J. Bell (ed) Conducting small-scale investigations in educational management. London. Harper Educational.

Bayliss, D. G. and Renwick, T. M. (1966) Photograph Study in a Junior School. Geography 51, 322-329.

Beagles-Roos, J. and Greenfield, P. M. (1979) Development of structure and strategy in two-dimensional pictures. Developmental Psychology. 15, 483-494.

Bealing, D. (1972) The Organisation of Junior School Classrooms. Educational Research, 14, 3. June.

Becker, H. (1958) Problems of Influence and Proof in Participant Observation. American Sociological Review. December, 28 652-660.

Becker, R. A. (1980) Research into practice IN W. B. Dockrell and D. Hamilton (Eds) Rethinking Educational Research London. Hodder and Stoughton.

Becker, R. A., Rosner, R. S. and Nelson, K. (1971) Stimulus modes and concept formation in pre-school children. Developmental Psychology. 11, 401-412.

Bender, B. G. and Levin, J. R. (1978) Pictures, imagery, and retarded children's prose learning. Journal of Educational Psychology. 70, 583-588.

Bennett, S. N., Desforges, C., Cockburn, B., and Wilkinson, B. (1984) The Quality of Pupil Learning Experiences, New York. Lawrence Erlbaum Associates.

Bennett, S. N., Jordan, J., Long, G., and Wade, B. (1976) Teaching Styles and Pupil Progress. London. Open Books.

Berlak, A., and Berlak, H. (1981) Dilemmas of Schooling: Teaching and Social Change. London. Methuen.

Bingham, J. M. (1979) Pictorial treatment of black and teaching picture reading skills in order to enrich children's vocabulary. Paper presented to Greatlakes I.R.A. Detroit, Mich. October.

Bock, M. (1978) Levels of processing of normal and ambiguous sentences in different contexts. Psychological Research. 40, 37-51.

Bock, M. and Milz, B. (1977) Pictorial context and the recall of pronoun sentences. Psychological Research. 39, 203-220.

Boeplan, R. C., and Bicklen, S. K. (1982) Qualitative Research for Education: An introduction to theory and methods, Mass. Allyn and Bacon Inc.

Booker, H. R. (1975) Relative comprehensibility of pictorial information and printed words in proceduralized instruction. Human Factors. 17, 266-277.

Borg, W. R. (1981) Applying Educational Research, A practical guide for users, New York. Longman Inc.

Bower, G. H. (1972) Mental imagery and associative memory IN L. W. Gregg (Ed.) Cognition in Learning and Memory. New York. John Wiley and Sons.

Blaine, D. (1982) Using pictures to teach concepts to handicapped learners. Special Education in Canada. 56, 19-21.

Blake, Q. (1981) Research from an illustrator's point of view. Paper given to Conference 'Research in Illustrations'. Brighton Polytechnic, March.

Blenkin, G. and Kelly, A. V. (1981) The Primary Curriculum. London. Harper and Row.

Bliss, J., Monk, M., and Ogborn, J. (1983) Qualitative Data Analysis for Educational Research. London. Croom Helm.

Blot, B., Boulot, S. and Clevy, J. (1978) Exercices langagiers sur des images (Language exercises based on pictures). Francais dans le Monde. 137, 21-31.

Brearley, M. (1969) Fundamentals in the First School. Oxford, Blackwell.

- Brown, A. L. and Scott, M. S. (1971) Recognition memory for pictures in pre-school children. Journal of Experimental Child Psychology. 11, 401-412.
- Brown, J. W., Lewis, R. B. and Harclerod, F. F. (1973) A. V. Instruction, Technology, Media and Methods. (4th Edition) London. McGraw-Hill.
- Brown, R. (1981) The influence of mode of pictorial representation upon the matching ability of young school children. Unpublished M.A. dissertation. University of York.
- Bruner, J. S. and Olson, D. R. (1973) Learning through experience and learning through media. IN G. Gerber, L. P. Gross and W. H. Melody, (Eds.) Communication, Technology and Social Policy. London. John Wiley & Sons.
- Butcher, P. S. (1980) Bibliotherapy: What is it and Will it be an Influence on British Children's Literature? School Librarian March. 28, 1, p11-13.
- Cable, R. (1965) Audio-Visual Handbook. University of London Press.
- C.A.C.E. (1967) The Plowden Report. Children in their Primary Schools. London. H.M.S.O.
- Calderhead, J. (1984) Teachers' Classroom Decision Making. London. Holt Educational.
- Campbell, P. F. (1976) Literature review: Research on children's comprehension of pictures. Technical Report No. 5. Florida State University.

Campbell, P. F. (1979) Artistic Motion Cues, Number of Pictures and First Grade Children's Interpretation of Mathematics Textbook Pictures. Journal for Research in Mathematics Education. 10, 2, 148-151.

Carr, T. H., Bacharach, U. R. and Mehner, D. S. (1977) Preparing children to look at pictures: Advance descriptions direct attention and facilitate active processing. Child Development. 48, 22-27.

Cohen, L. and Manion, L. (1981) Perspectives on Classrooms and Schools. London Holt, Rinehart and Winston.

Concannon, S. J. (1975) Illustrations in books for children: review of research. The Reading Teacher. 29, 254-256.

Constable, H., and Brown, R. (1985) Facilitating School Based Action: A case study. British Journal of In-service education. 11 No. 3, summer.

Constable, H., Campbell, R. and Brown, R. (1987) Sectional Drawings from Science Textbooks: An experimental investigation into pupil's understanding. Journal of Educational Psychology. 57, 3, summer.

Corbin, T. J. (1970) Display in Schools. London. Pergammon.

Cox, C., and Dyson, T. (eds.) (1969) Fight for Education. London. Critical Quarterly Society.

Cronbach, L. J. (1975) Beyond the two disciplines of scientific psychology American Psychologist 30 No. 2 116-127.

- Cronbach, L. J. (1982) Designing Evaluations of Educational and Social Programs. San Francisco. Jossey-Bass.
- Davies, F. R. and Ashton, P. M. E. (1975) Two Analyses of Teachers' Discussions of Aims in Primary Education IN P. H. Taylor (Ed) Aims, Influence and Change in the primary school curriculum, Slough. N.F.E.R.
- Davidson, R. E. (1964) Mediation and ability in paired-associate learning. Journal of Educational Psychology. 55, 352-356.
- De Cecco, J. P. (1974) The psychology of learning and instruction. Prentice Hall, New Jersey.
- De Graaf, C. A. (1972) Teaching action concept usage to institutionalised retardates with systematic instructions and still pictorial illustrations. Unpublished Dissertation. Southern Illinois University.
- Delamont, S. (1984) Readings on Interaction in the Classroom. London. Methuen.
- Delamont, S. and Hamilton, D. (1984) 'Revisiting classroom research: a continuing cautionary tale' IN Delamont, S. (ed) Readings in Interaction in the Classroom. London. Methuen.
- Denburg, S. O. (1976-77) The interaction of pictures and print in reading instruction. Reading Research Quarterly. 12, 176-189.
- Dennis, M. (1976) Test of incidental cues hypothesis. Perceptual and Motor Skills. 43, 175-178.

Department of Education and Science. (1978) Primary Education in England; A Survey by H.M. Inspectors of Schools. London. H.M.S.O.

Department of Education and Science/Welsh Office. (1981) The School Curriculum. London. H.M.S.O.

Department of Education and Science (1985) Quality in Schools: Evaluation and Appraisal. London. H.M.S.O.

Deregowski, J. B. (1968) Picture recognition in subjects from a relatively pictureless environment. African Social Research. 5.

Deregowski, J. B., Muldrow, E. S. and Muldrow, W. F. (1972) Pictorial recognition in a remote Ethiopian population. Perception. 1, 67-78.

Devoe, G. M. and Stern, C. (1970) Real objects versus pictures in the instruction of young children. Journal of School Psychology. 8, 77-81.

Dixon, P. (1974) Creative Expression in the Primary School. Blackwell.

Dockrell, W. B. (1980) The Crutriculation of research to knowledge and practice. Truth - what is that? IN W. B. Dockrell and D. Hamilton (Eds) Rethinking Educational Research, London. Hodder and Stoughton.

Downe, C. P. (1979) The effect of pictures and context cues on the acquisition and retention of right words. Unpublished dissertation. University of New Jersey.

Downey, M. T. (1980) Pictures as Teaching Aids: Using the Pictures in History Textbooks. Social Education. February 44, 2, 93-99.

- Duchastel, P. C. (1978) Illustrating instructional texts. Educational Technology. 18, 36-39.
- Duchastel, P. C. and Waller, R. (1979) Pictorial illustration in instructional texts. Educational Technology. 19, 11.
- Duckett, J. C. (1981) Representational competence and the ability to succeed with first grade learning activities. Paper presented to South Carolina Conference on Ed. Issues and Research. November.
- Dwyer, F. M. (1970) Exploratory studies in the effectiveness of visual illustrations. A. V. Communication Review. 18, 235-249.
- Dwyer, F. M. (1972) A guide for improving visualized instruction. State College p.a. Learning Services.
- Elkind, D., Koegler, R. and Go, E. (1964) Studies in perceptual development: II, part-whole perception. Child Development. 35, 81-90.
- Entin, A. D. (1979) The use of photography in family psycho-therapy. Paper presented to American Psychological Association. September.
- Evans, G. S. and Seddon, G. M. (1978) Responsiveness of Nigerian students to pictorial depth cues. Educational Communication and Technology Journal 26.
- Farnham-Diggory, S. (1978) Learning Disabilities London. Open Books, Fontana.
- Feldman, G. B. (1981) Art is for reading: pictures make a difference. Teachers College Record. 82, 649-660.

Fleming, M. L. (1967) Classification and analysis of instructional illustration. A. V. Communication Review. 5, 246-258.

Fleming, M. L. (1979) On pictures in educational research. Instructional Science. 8, 235-251.

Frake, C. O. (1977) Plying Frames can be Dangerous: some reflections on methodology in cognitive anthropology. Quarterly Newsletter of the Institute for Comparative Human Development. New York. 3, 1.

Freeman, N. H. and Cox, M. V. (1985) Visual Order. Cambridge University Press.

Friedman, S. L. and Stephenson, H. B. (1975) Developmental changes in the understanding of implied motion in two dimensional pictures. Child Development. 46, 773-778.

Galton, M. (1982) Strategies and tactics in Junior School Classrooms, in Richards, C. (ed.) New Directions in Primary Education. Brighton. Falmer Press.

Galton, M. and Simon, B. (1980) Progress and Performance in the Primary Classroom. London. Routledge and Kegan Paul.

Galton, M., Simon, B. and Croll, P. (1980) Inside the Primary Classroom. London. Routledge and Kegan Paul.

Geist, H. (1964) The Geist picture interest inventory. Western Psychological Services. California.

Giannetti, L. D. (1976) Understanding the movies. Prentice-Hall. Eaglewood Cliffs.

Gibson, J. J. (1954) A theory of picture perception. A. V. Communication Review. 2, 3-23.

Glaser, B. G. and Strauss, A. (1976) The Discovery of Grounded Theory. Chicago Aldine Press.

Goldsmith, E. (1984) Research into Illustration: an approach and a review. Cambridge University Press.

Gollin, E. S. (1966) Serial learning and perceptual recognition in children: training, delay, and order effects. Perceptual and Motor Skills. 23, 751-758.

Goodman, N. (1968) Languages of Art. London. Bobbs-Merrill.

Gordon, C. (1986) Resource Organisation in Primary Schools: Guidelines 5. Council for Educational Technology.

Gross, L. P. (1973) Communication and education for the full employment of human potential. IN G. Gerber, L. P., Gross and W. H. Melody, Communication Technology and Social Policy. London. John Wiley & Sons.

Gulliford, R. (1985) Teaching Children with Learning Difficulties. Slough. NFER-Nelson.

Hagen, M. A. (ed) (1980) The Perception of Pictures (Vol. 1.) New York. Academic Press.

Halverson, L. H. (1968) Geography via pictures. Revision: Do it this way. 2. National Council for Geographic Education.

Hamilton, D. (1981) 'Generalisations in the educational sciences: problems and purposes' IN T. S. Pop Kewitz and B. R. Tabachnick (eds) 'The Study of Schooling'. London. Praeger.

Hanes, M. I. (1973) The Research on How Children Learn from Pictures. Viewpoints 49, 2, p11-20.

Hargreaves, D. H. (1980) Editorial Forward. Educational Analysis. 2, 2, 5-6.

Hargreaves, D. H., Heston, S. K. and Mellor, E. S. (1975) Dominance in Classrooms. London. Routledge and Kegan Paul.

Higgins, L. C. (1979) Effects of strategy-oriented training on children's inference drawing from pictures. Educational Communication and Technology Journal. 27, 265-280.

Hochberg, J. and Brooks, V. (1962) Pictorial recognition as an unlearned ability: a study of one child's performance. American Journal of Psychology. 75, 624-628.

Holliday, W. G. (1976) Teaching verbal chains using flow diagrams and texts. A. V. Communication Review. 24, 63-78.

Hughes, J. N. and Hall, D. M. (1983) Individual differences in children's ability to profit from picture adjunct aids. Paper presented to American Ed. Research Association. April.

- Iscoe, I. and Sernier, I. J. (1964) Paired-associate learning in normal and mentally retarded children as a function of four experimental conditions. Journal of Comparative and Physiological Psychology. 57, 387-392.
- Jacobson-Widding, A. (1980) Farger auspeglar varldsbilden. Forskring och Framsteg. 6/80, 1-7.
- Jolicoeur, D., Gluck, M. A. and Kosslyn, S. M. (1984) Pictures and names: Making the connection. Cognitive Psychology. 16, 243-275.
- Jong, S. and Hormann, H. (1983) Sentences before and after pictures: How do verbal specifications influence picture recognition? Psychological Research. 45, 255-266.
- Keddie, N. (1971) Classroom Knowledge IN M. F. D. Young (Ed.) Knowledge and Control, London, Collier-Macmillan.
- Keifer, B. (1983) The response of children in a combination first/second grade classroom to picture books in a variety of artistic styles. Journal of Research and Development in Education. 16, 14-20.
- Kennedy, J. H. (1974) A Psychology of Picture Perception. London. Jossey-Bass.
- Keroy, T. and Tollit, J. (1987) Teaching Infants. Oxford. Basil Blackwell.
- King, R. (1978) All Things Bright and Beautiful; A Sociological Study of Infants' Classrooms. London. John Wiley and Sons.

- Kosslyn, S. W. and Pomerantz, J. (1977) Imagery, propositions, and the form of internal representation. Cognitive Psychology. 9, 52-76.
- Kosslyn, S. W. and Schwartz, S. P. (1977) A data-driven simulation of mental imagery. Cognitive Science. 1, 265-296.
- Kyriacou, C. (1986) Effective Teaching in Schools. London. Basil Blackwell.
- Lacey, C. (1976) Problems of Sociological Fieldwork: a review of the methodology of 'Hightown Grammar'. IN Hammersley, M. and Woods, P. (eds). The Process of Schooling. London. Routledge and Kegan Paul.
- Lang, R. J. and Solman, R. T. (1979) Effect of Pictures on Learning to Read Common Nouns. British Journal of Educational Psychology 49, 2, 138-149.
- Lawton, D. (1983) Curriculum Studies and Educational Planning. London. Hodder and Stoughton.
- Legenza, A. and Knafle, J. D. (1978) The effective components of children's pictures. Paper presented to National Reading Conference, Florida. November.
- Levie, W. H. and Dickie, K. E. (1973) The analysis and application of media. IN R. M. W. Travers (Ed.) Second Handbook of Research in Teaching. London. Rand McNally & Co.
- Levin, J. R. (1979) On functions of pictures in prose. Research Report. Wisconsin University.

- Lippman, M. Z. and Shanahan, M. W. (1973) Pictorial Facilitation of Paired - Associate Learning: Implications for Vocabulary Training. Journal of Educational Psychology. 64, 2, p216-222.
- Levin, J. R. and Berry, J. K. (1980) Children's Learning of All the News that's Fit to Picture. Educational Communication and Technology. Fall, 28, 3, 177-185.
- Levin, J. R., Bemder, B. G. and Lesgold, A. M. (1976) Pictures, repetition and young children's oral prose learning. A. V. Communication Review. 24, 367-360.
- Levin, J. R. and Divine-Hawkins, P. (1974) Visual Imagery as a prose Learning Process. Journal of Reading Behaviour. 6, 23-30.
- Lipsky, J. A. (1971) Students imaginative reactions to pictures: A means for studying their attitude toward reading. Elementary School Guidance and Counselling. 5, 266-272.
- Levin, J. R., Ghatala, E. S., De Rose, T. M. and Makoid, L. A. (1977) Image tracing: an analysis of its effectiveness in children's pictorial discrimination learning. Journal of Experimental Child Psychology. 23, 78-83.
- Lloyd, B. A. (1977) Picture - vocabulary - story (P-V-S). A guide to the new reading process through a total language approach. Reading. 11, 29-35.
- Luczoz, M. A. (1982) A Developmental Study of Recognition and Recall of Complex Pictures. Presented to American Psychological Association. Washington. August.

Luyben, P. D. (1973) The effects of pictures on the acquisition of a sight vocabulary in Rural EMR children. Paper presented to American Ed. Research Association. February.

Lyon, H. (1982) The Delphi Technique for Problem Solving. Personnel Management. January. 42-45.

Mackay, D. A. and Morland, P. W. (1978) Thought Processes of Teachers. Paper presented to the American Educational Research Association. Toronto.

Macworth, N. (1967) A stand camera for line-of-sight recording. Perception and Psychophysics. 2, 119-127.

Magne, O. and Parknas, L. (1963) The learning effects of pictures. British Journal of Educational Psychiatry. 33, 265-275.

Mandler, J. M. and Johnson, N. S. (1976) Some of the thousand words a picture is worth. Journal of Experimental Psychology, Human Learning and Memory. 2, 529-540.

Mandler, J. M. and Robinson, C. A. (1978) Developmental changes in picture recognition. Journal of Experimental Child Psychology. 26, 122-126.

Mangan, J. (1978) Cultural conventions of picture representation: Iconic literacy and education. Educational Communication and Technology Journal. 26, 245-267.

Manzo, A. V. and Legenza, A. (1975) A method for assessing the language stimulation value of pictures. Language arts. 52, 1085-1089.

- Marcel, T. and Barnard, P. (1979) Paragraphs of pictographs: The use of non-verbal instructions for equipment. IN P. A. Kolers, M. E. Woostad and H. Bouma (Eds) Processing Visible Language. London. Plenum Press.
- Marks, M. R. and Raymond, C. K. (1951) A new technique for observing concept evocation. Journal of Experimental Psychology. 42, 424-429.
- Marschalek, D. G. (1983) The Influence of Viewing Time upon the Recognition of Color and Subject Matter Placement in Paintings for Elementary and High School Studer Research Report 143. University of Wisconsin Press.
- Marsh, L. G. (1973) Being a Teacher. London. A. & C. Black.
- Matz, R. D. and Rohwer, W. D. (1971) Visual elaboration and comprehension of text. Paper presented to American Ed. Reserch Association. February.
- Matza, D. (1964) Delinquency and Drift. New York. Wiley.
- Mays, P. (1985) Teaching Children through the Environment London. Hodder & Stoughton.
- McAlpin, J. (1980) The magazine picture library: practical language and teaching No. 3. London. Allen and Unwin.
- McCutcheon, G. (1980) How do Elementary Teachers Plan? The nature of planning and influences upon it. The Elementary School Journal. 81, 4-23.
- Merton, R. K. and Kendall, P. L. (1946) 'The focussed interviews' American Journal of Sociology, 51, 541-557.

Misra, G. and Shulka, A. (1984) Recognition of pictorial material as a function of experimental deprivation and age. International Journal of Behavioural Development. 7, 95-103.

Morris, C. (1946) Signs, Language, and Behaviour. New York. Prentice-Hall.

Morton, J. (1979) Some experiments on facilitation in word and picture recognition and their relevance for the evaluation of the theoretical position. IN P. A. Kolers, M. E. Woolstad and H. Bourma (Eds) Processing Visible Language. New York. Plenum Press Vol. 1.)

Mundy-Castle, A. C. (1966) Pictorial depth perception in Ghanaian children. International Journal of Psychology. 1, 290-300.

Murphy, C. Y. and Wood, D. J. (1981) Learning from pictures: the use of pictorial information by young children. Journal of Experimental Child Psychology. 32, 279-297.

Murray, H. A. (1938) Explorations in Personality. New York. Oxford University Press.

Murray, F. S. and Szymczyk, J. M. (1978) Effects of distinctive features on recognition of incomplete pictures. Developmental Psychology. 14, 356-362.

Myatt, B. and Carter, J. M. (1979) Picture preferences of children and young adults. Educational Communication and Technology. 27, 45-53.

Nadel, S. F. (1939) An application of intelligence tests in the anthropological field. IN F. C. Bartlett, M. Ginsberg, E. J. Lindren, and R. H. Thouless (Eds) The Study of Society. London. Kegan Paul.

- Nesbit, L. L. (1981) Relationship between eye movement, learning, and picture complexity. Educational Communication and Technology. 29, 109-116.
- Newton, D. P. (1984) A Way of Classifying and Measuring Some Aspects of the Illustration Style of Text books. Programmed Learning and Educational Technology. February, 21, 1, p21-27.
- Nicholson, J. R. and Seddon, G. M. (1977) The influence of secondary depth cues on the understanding by Nigerian schoolboys of spatial relationships in pictures. British Journal of psychology. 68, 327-333.
- Ninio, A. and Bruner, J. (1976) The achievement and antecedents of labelling. Journal of Child Language. 12, 120-135.
- Nisbet, J. and Watt, J. (1984) 'Case Study IN J. Bell (ed.) Conducting small-scale investigations in educational management. London. Harper Ed.
- Orderindi, N. O. (1975) Pictorial assessment and selection. Audio Visual Instruction. 20, 20-26.
- Olson, D. R. (1970) Cognitive development: The child's acquisition of diagonality. New York. Academic Press.
- Olson, R., Yonas, A. and Cooper, R. (1980) Development of Pictorial Perception IN Hagen, M. (ed) Perception of Pictures Vol II. New York Academic Press.
- Paris, S. G. and Mahoney, G. J. (1974) Integration in children's memory for sentences and pictures. Child Development. 45, 633-642.

Pavio, A. (1977) Images, prepositions and knowledge IN J. Nicholas (Ed) Images, Perception and Knowledge. Reidel, Dordrecht.

Pavio, A. (1978) The relationship between verbal and perceptual codes. IN E. Carterette and M. Friedman (Eds) Handbook of Perception (Vol. 8). New York. Academic Press.

Peek, J. (1974) Retention of pictorial and verbal content of a text with illustrations. Journal of Educational Psychology. 66, 880-880.

Peng, C. and Levin, J. R. (1978) Longer term effects of pictures on children's story recall. Paper presented at the American Educational Research Association. March.

Pettersson, R. (1982) International review: Cultural differences in the perception of image and colour in pictures. Educational Communication and Technology Journal. 30, 43-53.

Phelps, R. (1969) Display in Classrooms. Oxford. Blackwell.

Potter, M. C. (1979) Mundane symbolism: the relations among objects, names and ideas. IN N. R. Smith and M. B. Franklin (Eds) Symbolic Functioning in Childhood. New Jersey. Erlbaum, Hills-dale.

Pressley, G. M. (1976) Mental imagery helps eight-year olds remember what they read. Journal of Educational Psychology. 68, 355-359.

Pressley, G. M. (1977) Imagery and children's learning: putting the picture in developmental perspective. Review of Educational Research. 47, 585-622.

Purves, A. and Beach, R. (1972) Literature and the reader: Research in response to literature, reading interests and the teaching of literature. Urbana III N.C.T.E.

Pylyshyn, Z. W. (1973) What the mind's eye tells the mind's brain: a critique of mental imagery. Psychological Bulletin. 80, 1-24.

Rankin, E. F. and Culhane, J. W. (1970) One picture equals 1000 words? Reading Improvement. 7, 37-40.

Reese, H. W. (1970) Imagery and contextual meaning. Psychological Bulletin. 73, 404-414.

Reid, D. J., Beveridge, M. and Wakefield, P. (1986) The Effect of Ability, colour and Form on Children's Perceptions of Biological Pictures. Educational Psychology. 6, 1. 9-18.

Richards, C. (1982) Curriculum Consistency, IN Richards, C. (ed.) New Directions in Primary Education. Brighton. Falmer Press.

Ridgway, L. (1976) The Task of the Teacher in the Primary School. London. Wardlock.

Ritchey, G. H. (1980) Picture superiority in free recall: the effects of organisation and elaboration. Journal of Experimental Child Psychology. 29, 460-474.

Ritchey, G. H. (1982) Notes, comments and findings. Pictorial detail and recall in adults and children. Journal of Experimental Psychology. 8, 139-141.

Rivers, W. H. R. (1904) Observation on the senses of Todas. British Journal of Psychology. 1.

Rohwer, W. D. and Harris, W. J. (1975) Media effects on prose learning in two populations of children. Journal of Educational Psychology. 67, 651-657.

Rosenshine, B. (1970) Evaluation of Classroom Instruction. Review of Educational Research. 40, 279-300.

Rowell, E. and Goodkind, T. (1983) From Cover to Classroom. Instructor May. 92, 9. 38-40.

Royer, J. M. and Cable, G. W. (1976) Illustrations, analogies, and facilitative transfer of prose learning. Journal of Educational Psychology. 68, 205-209.

Salomon, G. (1974) What is learned and how is it taught: the interaction between media, message task and learner. IN D. R. Olson (Ed) Media and Symbols. National Society for the Study of Education.

Sampson, K. M. and Westcott, A. L. (1983) The use of the picture potency formula in selecting pictures to stimulate stories. Reading Improvement. 20, 146-150.

Samuels, S. J. (1970) Effects of pictures on learning to read, comprehension and attitudes. Review of Educational Research. 40, 397-407.

Samuels, S. J., Biesbrock, E. and Terry, P. R. (1974) The effects of pictures on children's attitudes toward presented stories. Journal of Educational Research. 67, 243-246.

Schutz, A. (1953) Concept and Theory Formation in the Social Sciences.
Journal of Philosophy, 51.

Selleck, R. J. W. (1972) English Primary Education and the Progressives
1914-1939. London. Routledge and Kegan Paul.

Serpell, R. (1976) Cultures' Influence on Behaviour. London. Methuen.

Serpell, R. (1979) How specific are perceptual skills? A cross-cultural study
of pattern reproduction. British Journal of Psychology. 70, 15-35.

Seymour, P. H. K. (1976) Contemporary models of the cognitive process: II
Retrieval and comparison operatives in permanent memory. IN V. Hamilton and
P. V. Vernon (Eds) The Development of Cognitive Processes. London. Academic
Press.

Sigel, I. E. (1978) The development of pictorial comprehension IN Visual
Learning, Thinking and communication. London. Academic Press.

Sigel, I. E., Anderson, L. M. and Shapiro, H. (1966) Categorisation behaviour
of lower and middle class negro pre-school children: differences in dealing
with representation of familiar objects. Journal of Negro Education. 35,
218-229.

Sigel, I. E. and Olmsted, P. (1970) Modification of classificatory competence
and level of representation among lower class negro kindergarten children. IN
A. H. Passow (Ed) Reaching the Disadvantaged Learner. New York. Teachers
College Press.

- Sinatra, R. (1981) Visual Compositions and the Writing Process. Paper presented to Canadian Council of Teachers of English Vancouver. May.
- Sinatra, R. (1983) Sentence Development: A Non-verbal Approach. Academic Therapy. 19, 1, p79-88.
- Shepard, R. (1967) Recognition memory for words, sentences, and pictures. Journal of Verbal Learning and Verbal Behaviour. 6, 156-163.
- Smerdon, G. (1976) Children's preferences in illustration. Children's Literature in Education. 20, 97-131.
- Smith, R. (1980) Scepticism and qualitative research: a view from inside Education and Urban Society 12, 3, 383-398.
- Snowman, J. and Cunningham, D. J. (1975) A comparison of pictorial and written adjunct aids in learning from text. Journal of Educational Psychology. 67, 307-311.
- Spangenberg, R. W. (1973) The motion picture variable in procedural learning. A. V. Communication Review. 21, 419-436.
- Spencer, C., Harrison, N. and Darvizeh, Z. (1980) The Development of Iconic Mapping Ability in Young Children. International Journal of Early Childhood 12, 2, 57-64.
- Spiegel, D. L. (1983) Readiness for Reading Comprehension. Teaching Guide 052. University of Wisconsin Press.

- Spradley, J. P. (1980) Participation Observation. London. Holt, Rinehart and Winston.
- Standing, L. G. (1971) Categorizing stimuli for picture/memory studies. Research Report EP-2 Lennoxville, Quebec, Bishop's University.
- Standing, L. G., Conezio, J. and Haber, R. N. (1970) Perception and memory for pictures: single trial learning of 2560 visual stimuli. Psychonomic Science. 19, 73-74.
- Stenhouse, L. (1980) The study of samples and the study of cases. British Educational Research Journal. 6, 1-6.
- Stewart, J. (1986) The Making of the Primary School London. Open University Press.
- Stonier, T. (1982) Changes in Western Society; Educational Implications. IN, Richards, C. (ed.) New Directions in Primary Education. Brighton. Falmer Press.
- Stott, D. (1978) Helping Children with Learning Difficulties: A Diagnostic Approach. London. Ward-Lock Educational.
- Strang, R. (1969) Diagnostic Teaching of Reading. New York. McGraw-Hill.
- Stubbs, M. and Delamont, S. (eds) (1976) 'Explorations in Classroom Observation' London. John Wiley and Sons.
- Sumner, N. L. (1950) Visual Methods in Education. Oxford. Basil Blackwell.

Swanson, H. I. (1977) Response strategies and stimulus salience with learning disabled children and mentally retarded children on a short-term memory task. Journal of Learning Disabilities. 10, 635-642.

Swanson, H. L. and Watson, B. (1976) Dimensional salience and short-term memory recognition in mentally retarded children. Perception and Motor Skills. 42, 1163-1166.

Taylor, P. H. (1975) A Study of the emphasis given by Teachers of Different Age groups to aims in Primary Education IN Taylor, P. H. (ed.) Aim Influence and Change in the Primary School Curriculum. Slough N.F.E.R.

Taylor, R. (1986) Education for Art. London. Longman.

Taylor, P. H., Reid, W. A., Holley, B. J. and Exon, G. (1974) Purpose, Power and Constraint in the Primary School Curriculum. London Macmillan.

Travers, R. M. W. (1978) An Introduction to Educational Research. (4th Edn) New York MacMillan.

Tucker, D. J. and others (1973) The effects of pictorial stimuli on direction following of mentally retarded adolescents. Project working paper No. 300. Bureau of Ed for the Handicapped. August.

Vernon, M. D. (1950) The value of pictorial illustration. British Journal of Psychology. 174, 180-187.

Vernon, M. D. (1976) The Development of Visual Perception in Children. IN Brothwell, D. R. (Ed) Beyond Aesthetics. London. Thames and Hudson.

Voelker, A. M. (1973) Up-grading picture communications research in science education. Paper presented National Association for Research in Science Teaching. March.

Vurpillot, E. (1976) The Visual World of the Child. London. Allen and Unwin.

Wacker, D. P. and Berg, W. K. (1983) Effects of picture prompts on the acquisition of complex vocational tasks by mentally retarded adolescents. Journal of Applied Behaviour Analysis. 16, 417-433.

Walberg, H. J. and Thomas, S. C. (1971) Characteristics of Open Education; Towards an Operational Definition. Newton, Massachusetts Educational Development Center.

Watkins, M. J. and Graefe, T. M. (1981) Delayed rehearsal of pictures. Journal of Verbal Learning and Verbal Behaviour. 20, 276-288.

Watts, M. and Ebbutt, D. (1987) More than the Sum of the Parts: research methods in group interviewing. British Educational Research Journal. 13, 1, 25-34.

Weiss, M. J. (1982) Children's preferences for format factors in books. Reading Teacher. 35(4), 400-407.

Wilgosh, L. (1975) Effects of labels on memory for pictures in four-year old children. Journal of Educational Psychology. 67, 375-379.

Williams, C. M. (1963) Learning from Pictures. Washington. National Education Association.

Willows, D. M. (1978) Individual differences in distraction by pictures in a reading situation. Journal of Educational Psychology. 70, 837-847.

Wittich, W. A. and Schuller, C. F. (1962) Audiovisual Materials: their nature and use. London. Harper and Row.

Wittgenstein, F. (1961) Tractatus Logicus - Philosophicus. London. Routledge and Kegan Paul.

Wolcott, H. F. (1967) A Kwakint Village and School. New York. Holt, Rinehart and Winston.

Woods, P. (1979) The Divided School. London. Routledge and Kegan Paul.

Yinger, R. J. (1980) A study of teacher planning The Elementary School Journal 80, 107-127.

Zahorik, J. A. (1975) Teachers' planning models Educational Leadership, 33, 134-139.

Zahorik, J. A. (1982) Learning activities: nature, function and practice. The Elementary School Journal. 82, 303-319.

Zeaman, D. and House, B. J. (1963) The roles of attention in retardate discrimination learning. IN N. R. Ellis (Ed) Handbook of Mental Deficiency. McGraw-Hill New York.