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# A STUDY <br> of the thematic content preference OF YOUNG CHILDREN IN NORTHERN IRELAND LEARNING TO READ 

M. ELIZABETH GRAY B.A.

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A Thesis submitted to the Faculty of Educational Studies of The Open Oniversity for the Degree of Master of Philosophy
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## A STUDY OF THE THEMATIC CONTENT PREFERENCE

OF YOUNG CHIIDRER IN NORTHERN IRELAND LEARNING TO READ
M. Elizabeth Gray, Stranmillis College of Education, Belfast.

## ABSTRACT

This study investigated the thematic content preference of boys and girls at the beginner reader stage and surveyed the type of material used in Northern Ireland to teach children to begin reading. By two stage random sampling procedure, 96 schools were selected out of the total 1110 primary schools and 36 preparatory schools in Northern Ireland. From them, a sample of 899 children, 433 boys and 466 girls was drawn.

A specially developed picture test, administered to individual children, was used to assess theme preference. The analysis of theme preference was undertaken from three different aspects:
(1) How each picture was ranked (ranking)
(2) How each place in the individual's ranking was filled (selection) and
(3) Preference expressed through illustrated theme.

Variables taken into consideration were: sex, age, social class and religion of children; locality, size, sex, type and Area Board of school, and reading scheme in use. A series of regression analyses followed by a series of one-way analyses of variance were carried out overall and for boys and girls separately. Wide sex differences in theme preference were found.

Reading schemes most used in the schools were, in order of popularity, 'Ladybird', 'Happy Venture', and 'Janet and John'. With
the exception of 'Happy Venture', this was found to be similar to usage in Fngland. While, in general, girls were interested in the thematic content of these reading schemes, no correspondence was found between themes and the stated preferences of boys since boys showed an interest in themes of violence and adventure. The results are applied to boys' progress in learning to read and suggestions are made for improving boys' tuition.

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Fig. 1 Location of Schools in the Sample

## SECTION 1

## INTRODUCTION AND SURVEY OF THE LITERATURE.

## INTRODUCTION

Books for readers at the beginner stages are still published primarily as a technical device for teaching the skill of reading. Relatively little attention has been paid to content.

With the exception of 'Breakthrough to Literacy'' material and the more recently published 'Link-Up' (Reid and Low 1973)2 series, research in the field of reading has had little influence on the production and publication of beginner reader materials. Little significant change has occurred during the past thirty years (Goodacre 1969) ${ }^{3}$. Attempts have been made to improve illustrations and physical presentation and to remove class, sex and racial bias, but the basic features remain the same. Goodacre (1968), as a result of a survey carried out in Home County and Midland city schools, concluded that, although children were now reading from two or more schemes, these schemes were basically alike and the main principle underlying their construction was that of vocabulary control. 4

Goodacre's findings are supported and updated by Labon (1977) in his concluding observations to an exhaustive and well documented study of initial reading materials in Britain. He states: '... initial reading materials prevalent today, although existing in increasing variety over the past few decades, and although exhibiting moderate differences in detail from each other and from their predecessors do not in general demonstrate major advances over those first introduced some fifty years ago. . 5

For very young children reading must be synonymous with enjoyment and it is without doubt the nature of the content which stimulates this vital response.

The writer's interest in the content of beginner reading material grew from an involvement, over a number of years, in the education of young children. The question of the suitability of published material for the purpose of teaching children to begin reading often arose. This work seeks to examine this problem in a systematic and scientific manner.

The purpose of this research was to investigate the theme preferences of children at the beginner reader stage with a view to determining the suitability of the content of beginner reading material. 'Beginner reader' is here defined as the stage at which a child has acquired the pre-reading skills and is beginning to use a book for formal instruction.

Eight hundred and ninety-nine four, five and six year old children, drawn as a random sample from primary and preparatory schools in Northern Ireland were surveyed to gather data on children's theme preferences. The variables taken into consideration were sex, age, social class and religion of children, locality, sex, size, type and Area Board of school. The possibility of a link between reading scheme used and content preferences was also examined.

The instrument used was a specially devised picture test which was administered on an individual basis. Children also illustrated chosen themes as a cross validity measure. To investigate the

```
relative influences on theme preference by pupil and school
\nablaariables step-wise regression analysis was employed as a means
of short-listing those variables which were indicative of the
more important differences in group means. Cne-way analyses of
Variance were then employed to determine major differences
between groups.
```

The report is in four sections together with Appendices. The first section presents the introduction and a survey of the literature. The second describes the method and the aim of the investigation. The third section presents the results. The discussion of the findings with implications for the classroom comprises the fourth section.

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2. J. REID, J. LOW, (1973), Link-Up, Edinburgh: Holmes McDougall.
3. E. J. GOODACRE, (1969), 'Published Reading Schemes', Educational Research, Volume 12 No. 1, pp 30-35.
4. Ibid.
5. D. LABON, (1977), 'Evaluating Initial Reading Materials', Unpublished PhD thesis, University of Sussex.

Beginner Reading Material and Its Value as a Teaching Instrument. The reading programme should include all aspects of reading right from the beginning (Roberts $1973^{1}$; Gibson \& Levin $1975^{2}$; Moyle 1978 ${ }^{3}$ ). Thus any material used for teaching children to begin to read should satisfy this requirement if it is to have value as a teaching instrument. Apart from content, many of the early books in reading schemes, when evaluated against the basic criteria of sentence structure and children's functional vocabulary, fail to reach desirable standards. Those schemes which feature codeemphasis or vocabulary control as central teaching aids seem even less likely to be effective in the context of this wider approach to the teaching of reading.

## Sentence structure

An important reading skill which should be developed from the early stages, is cueing from the context. This implies the use of syntactic cues. But the fact that children bring to the task of reading their own experience of language structure (and actively use this experience) ${ }^{4}$ is too often ignored by those who write first reading books.

Investigating the relationship between the speech structure used by children and those in the books used to teach them to read, Strickland $(1962)^{5}$ found that the most common structure in the speech of first grade children was the sentence using a transitive verb. This form represented $60.6 \%$ of young children's conversation. She concluded that there seemed to be no reading scheme which provided for the development of command, in reading, of sentence structure and suggested that such schemes should be produced. In an extension of this research, Reid (1970) ${ }^{6}$ compared the Strickland speech samples with the first books of four well known reading schemes and found that the highest percentage of use of the transitive verb structure in any one scheme was $30.8 \%$.

On examination of sentence structure in Picture Books II and III of the "Through the Rainbow'' reading series, it was found that there was not one example of the 'I saw a bus' form in either of these books, although they were first published in 1971 when the results of the above mentioned research were available.

Even allowing for the fact that there is a difference between written and spoken language, it is essential that children's syntactic patterns should be used in the presentation of reading material for instruction at the beginning stages. Through the use of such material the important skill of predicting word probability from language structure could be developed. The sentence patterns in many schemes hinder children from developing this skill. (Bullock 1975). 8

## Vocabulary content

Vocabulary content presents problems too. The words children actually use every day should be those used in initial reading material in order to assist in word recognition. One would therefore expect to find a large proportion of these words in the first books of reading schemes. This is not so. Edwards and Gibbon (1964) ${ }^{9}$, comparing their graded vocabulary lists for five year old, six year old and seven year old children with the vocabulary of two popular reading schemes, found that few of the listed words were used in the first books and the number used decreased rapidly in later readers. This disparity between the vocabulary of children learning to read and beginner reading material is further emphasised by Quigley (1973) ${ }^{10}$ whose findings show wide differences between the beginning vocabulary of six well known reading schemes and the pre-reading vocabulary of children leaving nursery school. Beginner books, it would seem, provide little assistance through vocabulary for the development of word identification skills.

## Vocabulary control

Many of the published reading schemes intended for the lower primary children are vocabulary controlled. The introduction of new words is limited and the repetition of words already in use is saturating, the result being 'fractured English and idiotic story line' (Lefevre 1964). 11 To include meaningless repetition in the interest of word recognition and thereby sacrifice story line is unsound pedagogy. This is especially so, as it has been estimated
that the maximum number of repetitions necessary for word recognition ranges from twenty for children with an I.Q. of 120-129, to forty-five for children with an I.Q. of 70-79 (Gates 1930). 12

As a reading book is only part of the reading programme all the repetition necessary for learning to take place need not be confined to the book. Furthermore vocabulary control by no means ensures the control of differing grapheme-phoneme relationships (Diack 1960). 13 Any advantage in the use of vocabulary controlled material appears to be limited and must be evaluated against the sacrifice of interesting content.

## Code-emphasis

Writers of phonic-based schemes for the teaching of reading are primarily concerned with the presentation of phonetically regular words in a graded sequence. This pre-occupation with regular grapheme-phoneme patterns tends to preclude the writing of material with interesting content. In some examples the ideas expressed are inane because longer irregular content words already known and used in speech by the children are purposely omitted. This emphasis on code-breaking, to the exclusion of interesting content, is unsound as phonic analysis is only one element in the overall skill of reading. The aim should be to include, right from the beginning, as many of the sub-skills of reading as possible.

Underlying the conviction that children should be introduced to reading by regular phoneme-grapheme representation, is the
assumption that young children cannot assimilate options in a system. But there is opinion which indicates that this is not the case (Donaldson 1978). ${ }^{14}$ If it is not, there is no justification for failing to help children understand the nature of the task right from the beginning; to expect irregularities, rather than anticipate regular correspondence. Some irregularities should therefore be included to help alert children to their existence (Levin and Watson, 1963b ${ }^{15}$; Gibson and Levin, $1975^{16}$ ).

Linguistically based reading schemes, although claimed to be different from phonic schemes, seem to adhere to similar basic principles and accordingly the reading material suffers from the same defects as regards content. Additionally the method used in these schemes may break psychological principles (Emans 1969). ${ }^{17}$ It is debatable if code-emphasis material for beginners does facilitate the teaching of the skill of reading to any marked degree. Accordingly the question of the lack of suitable and interesting content in such material is a pertinent one.

## Skill acquisition

Malt: (1977) analysed eight reading schemes including the seven being used in $93 \%$ of British Schools (Goodacre 1968). ${ }^{18}$ Following a detailed investigation of the contribution of the material to skill acquisition the conclusions reached were:
'If a training programme for reading were developed by Skills Analysts as if reading were to be taught as an individual skill, it would be radically different from the schemes which were examined'. 19

## Content

If a book is written for the purpose of teaching a child to begin reading, one of the essential characteristics should be its compelling attraction. It should be obvious to writers and publishers that only the content will continue to fascinate after pictures have been explored, but writers of first books of reading schemes seem to ignore this fact. The interest level of such books is virtually non-existent. There seems to be no attempt to provide intrinsic motivation by structuring content to include interesting facts, exciting incidents and absorbing characters. It is a mistake to assume that because of their age and limited experience beginner readers are only interested in the mundane and near at hand.

The American study by Wiberg and Trost (1970) ${ }^{20}$ supported later by Eimet and Camp (1974), 21 concluded that 'primers' and first grade reading books had inappropriate content, when compared with what children were choosing from the library shelves.

The content of beginner readers has been condemned by many experts in the field of reading. Merritt (1970) describes many readers as 'banal'. 22 Roberts (1968) refers to the 'Paucity of content'. 23 To Lefevre (1964) they are a 'chronic pain'. 24 Busch (1972) notes a 'growing dissatisfaction' with the content of beginner readers 25 and cites the study of Blom et al (1969) who find the themes of stories in first grade readers 'bland and pollyannaish'. 26

## Teachers' involvement

The tardiness of publishers to improve beginner reading materials in the light of research is encouraged by teachers' lack of discrimination and perhaps lack of interest in content. Labon (1977), exploring teachers' constructs in evaluation of reading schemes, discovered that just $12.1 \%$ of constructs were associated with the interest to children of content. 27

Most teachers prefer to use a published reading scheme in spite of its many limitations and many believe it to be a necessity (Barton and Wilder 1964). 28 Thus teachers contribute to the casual and uninformed approach of publishers by creating demand.

If the findings of Southgate and Lewis (1973) (that out of one hour spent on language $7 \%$ of time was given to reading from the basic reader $)^{29}$ are an indication of general practice, the functional teaching materials would seem to be the accompanying reading and writing activities. This makes it even less possible to justify the use of reading books of such poor quality as regards content and raises questions concerning teachers' motives for including them at all.

## The Developmental Needs of Young Children

In the education of young children it is essential to recognise stages of development in mental and physical growth and the needs which they create. Children at beginner stages are not motivated to read by role fulfilment needs. Often they read because of adult pressure from both teacher and parent, because of peer pressure and from intrapsychic needs. Consequently when a child
assumes he has accomplished the task of reading and when he feels he has satisfied adult expectations, interest in reading books wanes and impetus to read diminishes. He is no longer motivated.

At this critical stage it is essential that the young reader is further stimulated. The only motivational factor remaining must be the content. It is of paramount importance therefore that content should carry intrinsic motivation, that it should meet the expectations of young children and ensure that efforts they make to read are rewarded.

In planning learning experiences for children it is sound practice to suit the task and the materials used to the particular child's stage of development. The modern approach to the teaching of mathematics is an apt illustration. There seems no reason why the same theory of learning should not be applied to the teaching of reading.

Fantasy is a developmental need of children when at the early reading stage. During this period the child is trying to come to terms with conflicts from within. Stories and story telling are a form of fantasy play necessary to help resolve these conflicts in that, while they allow the child to experience emotions of fear and anger, he is at the same time protected. Among others, Bettelheim (1975) ${ }^{30}$ has highlighted how these needs are met in the traditional fairy tale. But the child's need of fantasy for emotional development is largely ignored by those who select content for beginner readers. Intrinsic motivation, matched to the young child's need of fantasy, could be built in to the content
of first books if publishers showed a greater concern with how and why children learn.

Furthermore both Piaget (1951) ${ }^{31}$ and Singer (1973) ${ }^{32}$ consider the fantasies of children to be an essential stage in their cognitive development. If then, for young children, fantasy play is fundamental to thinking and to learning, could it be that for the same reasons fantasy stories are fundamental to the task of learning to read?

In an interesting and illuminating selection of stories written by young children, Connie and Harold Rosen (1973) include the story of 'The Dinosaur' by a six year old boy. 33 (Appendix A). Here is an appropriate example of a child's interest in fantasy, of his richness of language and his complete lack of restriction in the use of vocabulary. In the same selection other stories written by children as young as five years of age also have fantasy themes. The Rosens rightly comment 'For young children the real book is a story book. No other reading will so completely absorb them'. 34 Yet theories of child development and of learning, and information, though limited, on children's theme preferences, do not seem to have influenced noticeably the production of reading material for beginners.
'Children are involved in making stories long before they encounter words in books'. 35 (Grugeon 1977). To introduce them to story reading by means of the material currently produced for beginner readers mist surely be, for them, a retrograde step.

## Iimitations of Initial Reading Materials

Beginner reading schemes do not provide suitable experiences for the development of all the preliminary reading skills, mainly because of their rigid commitment to method. Where learning opportunities are provided for one area of skills, it often follows that there is little opportunity for the acquisition and practice of other equally important skills. The position is then, that most of the reading material available for beginners neither provides adequately for the acquisition of the preliminary skills nor contains themes likely to encourage young children to want to read.

When evaluated against instructional, syntactic and especially semantic criteria, beginner books cannot be considered an effective means of introducing young children to the true purposes of reading. The content of material presented to beginner readers should assist in their particular stage of development. It should therefore be prepared with an awareness of their innate need of fantasy and make-believe themes. Singer (1973) speculates, 'It would be interesting to examine from a research standpoint whether the possibility for early exposure to make-believe increases the child's interest and likelihood of learning to read and to enjoy reading. 36 This possible link between the fantasies of early childhood and the task of learning to read is an interesting one.
'In learning to read, there does have to be some focus on technique. What I am arguing is the fact that that is far from enough. We have to focus on content.' (Cashdan 1976). 37

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Little research has been undertaken in the area of the preferences of five to six year old children as far as content is concerned. A considerable amount does exist, however, concerning the tastes of children of ten years of age and upwards.

Research reviewed
It was felt that some insight into young children's preferences might be gained by examining other work on content preference. To obtain an overview for Britain, spanning the years from 1940 to the present, four large scale investigations are reviewed. The four chosen, Jenkinson (1940) ${ }^{1}$, Carsley (1957) ${ }^{2}$, The National Association for the Teaching of English (1968) ${ }^{3}$ and Whitehead et al (1975) ${ }^{4}$, all considered over two thousand subjects and provide a comprehensive survey.

Byers (1964) ${ }^{5}$ and Kirsch and Robinson (1974) ${ }^{6}$, two studies both dealing with the same age group of children investigated in this thesis, are considered in greater detail. Reviewed also, because seven year old children were sampled, are, The Froebel Foundation's Bulletin Committee Survey (Lawrence 1964) ${ }^{7}$ of nine hundred and thirteen children and the Beta Upsilon chapter Pi Lambda Theta (1974) project. ${ }^{8}$ The only report available on Northern Ireland children, Abernethy et al $(1967)^{9}$, is included because of obvious interest.

As a random sample drawn in Northern Ireland is likely to include many rural schools, a review of the preferences of rural children
is of particular relevance to the present investigation. Though research in this somewhat restricted area is limited and inconclusive, the Davies (1969) ${ }^{10}$ investigation and the Cooper (1973) ${ }^{11}$ survey, both of which are reviewed, indicate interesting trends.

Two other studies, Ellison and Williams (1971) 12 and Hanson (1973) ${ }^{13}$, are included because of their social overtones and additionally, in the case of the Hanson (1973) paper, because seven year old children were considered.

## Four large scale investigations

Jenkinson (1940) in 'What do Boys and Girls Read?' concluded that the preferences of boys and girls between the ages of twelve years and fifteen years were broadly similar, all ages choosing adventure themes. Two factors of possible relevance to the work of this thesis emerged. (1) Age appeared as a more important differential than sex; the tastes of boys and girls of the same age were more alike than were the tastes of twelve and fifteen year old boys. (2) Differences between schools existed; girls from secondary schools differed in taste from girls in senior schools.

Jenkinson's work is corroborated by Carsley (1957) and the N.A.T.E. (1968) survey in that both studies found adventure stories accounting for first preference of both sexes. The Froebel Foundation's Bulletin Committee Survey (Iawrence 1964), described by Lawrence as lacking in statistical accuracy, also found adventure stories the first choice of both boys and girls over the whole age range seven to fifteen years. Some interesting deviations must however be noted.

Unlike the Jenkinson (1940) findings, the Carsley (1957) study of two thousand and fifty ten and eleven year old children discovered no difference between schools. Carsley is supported by the N.A.T.E. results for eleven to sixteen year old children where no great difference in taste was apparent according to school. The difference between the first preferences of these children, categorized for potential G.C.E. or C.S.E. grades, was the age at which certain topics were chosen, not the topics per se. But all three surveys agreed that preference differences did emerge after second choice rankings and Lawrence (1964) whose report included the youngest children surveyed noted differences of taste between the sexes after first preference. The limitations of the contribution of the Carsley (1957), N.A.T.E. (1968) and Lawrence (1964) surveys when considering four, five and six year old children are acknowledged. The results however suggest the likelihood that children may choose adventure stories as first preference and that differences in taste between the sexes after first preference rankings may exist.

Both the Carsley (1957) and N.A.T.E. (1968) subjects represented a greater variety of social background than the Jenkinson (1940) sample and in this dimension they more closely correspond with the subjects sampled in this present work. The conclusions, that neither type of school nor social class emerged as a significant variable, are additional trends worthy of note.

In an interim report of the current Schools Council project 'Children's Reading Habits' ${ }^{14}$ covering the ten years plus to fourteen years plus age range, Whitehead (1975), discusses comic
and magazine reading and the reading of ten different categories of book. Of all book reading the most frequently read category was 'Juvenile "Non-Quality" Narrative' accounting for $33.4 \%$ of the total. A check through the provided list of titles in this category revealed the story content of these books to be mostly adventure (See Appendix B).

The report states 'our findings are not very dissimilar from the conclusions reached by Jenkinson in 1940'15. 'They also seem similar, in this respect, to the Carsley (1957) and N.A.T.E. (1968) findings. Jenkinson himself confirms that he is struck by the similarities between his pre-war investigation and the findings published in the interim report and searches for an explanation of the growth since the 1930 s of the number of children who read comics. 16

The discovery by Whitehead (1975) of apparent differences in reading tastes, narrative or non-narrative, between the sexes in 211 age groups differs from the Carsley (1957) and N.A.T.E. (1968) findings. This finding, supporting sex differences in content preference, is important since Whitehead could generalize with some degree of confidence because of the sampling procedure. It also is an indication that preference differences between the sexes may also exist at five to six years of age.

The statement that the discovered list of widely read books 'strongly suggests - what they (children) are seeking must be described in terms of emotional satisfaction or instinctual gratification ${ }^{17}$ is most interesting. It is also suggested that themes of children's books, popular at different ages may reflect
the fantasies and emotional conflicts of that particular stage of development ${ }^{18}$. There is no age at which this could be more relevant than at the beginner stages of learning to read.

Two studies investigating social influences
The important question of the link between socio-economic background and story preference is the basis of two small scale studies undertaken by Eilison and Williams (1971) and Hanson (1973). Neither found any significant connection between social class and story preference. The instrument developed from books from three popular reading series, 'Ladybird ${ }^{19}$, 'Griffin' 20 and 'Nippers' ${ }^{21}$ limited the findings of the Ellison and Williams (1971) study but facts emerge which are of interest.
'Ladybird' stories were of adventure, 'Griffin' were mainly fantasy and 'Nippers' were of the real world. Of the choices of fifty-six nine to ten year old children - one of the youngest groups considered so far in this review - forty-eight first choices were for 'Ladybird' and 'Griffin' books, twenty-four to each. This clear preference for adventure tales and fantasy-adventure tales supports work already reviewed. But sex differences in taste occurring within these categories is in contrast with the findings of most of this work. More girls than boys chose fantasy-adventure tales as first preference.

Ellison and Williams (1971) suggest that their findings may be due to other factors in children's reading such as wish fulfilment, escapism and the appeal of adventure - an observation made by Whitehead et al in their interim report four years later.

In contrast, Hanson's (1973) conclusion that seven and eight year old children wish to read about children of an older age group is a contradiction of findings already discussed. But the restriction put upon choice by the pictures used in the study could not have given any other result - all illustrations depicted children of varying ages. 22 Therefore Hanson's (1973) findings as a result of the picture test should be discounted as far as story preference is concerned.

The same is not true for his three stories test. 23 While supporting the 'no class difference' hypothesis, the results do not support the selection of the adolescent model as a theme for a story. The preference of both sexes for a classless police adventure follows general trends. If adventure had been represented in the picture test the results might have been quite different.

A Northern Ireland study
Since this present investigation is concerned with reading preferences of Northern Ireland children the Register of Research in Education Northern Ireland Vol. I 1945-70, Vol. II 1970-72, Vol. III 1972-75 was consulted in the hope that some previous work in this field might be available. 24

Except for the Belfast Survey undertaken by Abernethy et al (1967), no research relevant to the topic has been carried out in Northern Ireland. Abernethy's (1967) objective was to gather information about the 'in-school' reading of eight to eleven year old Belfast children. His random sample of one thousand six hundred and
forty-seven subjects was drawn from two urban, two suburban and two preparatory schools. Children were asked to complete a questionnaire inquiring about books they were currently reading and also asking for details of their favourite book, class readers excluded. In the qualitative analysis of the books, three categories were arbitrarily decided upon: 'good class material', 'poor class material' and 'non-fiction'. Findings suggest that differences in children's tastes according to locality do exist in Northern Ireland.

All school children except those from the urban schools read more 'good class material' but the urban school children read more 'nonfiction' than the others. Sex differences in taste were not investigated. These results do not add to the information about the unrestricted taste of the children. All the books were adult approved ('those books, apart from class readers, which the teachers had permitted their children to read during the school day' ${ }^{25}$ and were categorized according to adult taste. Another factor restricting choice is revealed in a pertinent note by the research team: in 1967 Belfast had no school library service.

The quantification on question four of the questionnaire - favourite reading - is a better indication of children's taste. Over one hundred and eighty children named Enid Blyton as favourite author while animal stories and 'Ladybird' books came equal second choice, accounting for the preferences of two hundred and forty pupils. As Enid Blyton stories have adventure and fantasy themes, this result agrees with findings of most of the research already reviewed. The sizeable preference for animal stories in Belfast is not matched elsewhere but in view of the satisfactory sampling
procedure it cannot be overlooked, even though the findings relate to the whole eight to eleven years age range and not specifically to the youngest children.

The research team's comment 'Enid Blyton obviously does for children what Agatha Christie, for example, does for adults ${ }^{26}$ is paralleled by the later remarks, already documented, of Ellison and Williams (1971) and Whitehead (1975). It may be that this type of Iiterature is a necessary experience for cognitive and developmental growth and as such is instinctively chosen by children. If this is so it should have a place in the classroom of not only the eight to eleven year old age range, but also of the young child.

Three studies investigating the preference of six year old children A search of the literature in this country has failed to produce any studies of children's interest in content at the age of six years or under.

Byers (1964) based an American study of six year old children on three assumptions one of which was 'that children who are beginning to read will wish to read about people, objects and events with which they have some familiarity' ${ }^{27}$. A sample of one thousand eight hundred and sixty first grade children selected to represent a balance in rural-urban population and a cross section of social class were tape recorded during unstructured sessions termed 'sharing periods'. Chilaren talked freely, it is claimed, about their interests and discussed possessions brought in specially for sharing.

Analysis of the tapes revealed a multiplicity of topics which were categorized and placed in rank order. The topic holding the greatest interest for both boys and girls was 'Science and Nature' accounting for over twenty-five per cent of choices. When this category was sub-divided, eighty-two per cent of children's interests (twenty-one and a half per cent of the overall total sample) came under the heading of 'living things'. In this category the rank order of interest was: pets and domestic animals; birds and poultry; fish and sea life; plants; reptiles; wild animals; insects and amphibians.

This preference of both boys and girls for animal themes, noted as second choice of the eight to eleven year old Belfast children, is supported by the first preferences of the seven year old children of both sexes in another American survey, the Beta Upsilon chapter Pi Lambda Theta (1974) project. The support, however, is weakened by the ad hoc sampling procedure in the latter survey and by the fact that the number of seven year old subjects totalled just forty-six. In most of the nine other categories emerging from the Byers investigation, wide differences were apparent between the preferences of boys and girls. Content preference category rankings in this survey are not supported by other findings but it should be noted that these were younger children and differences could be expected. Some evidence of difference in taste between the social classes existed, in that certain children displayed 'a poverty of interests'.

The Byers work began with an assumption referred to above but it also seems to conclude with an assumption. The recommendation that
texts should emphasize the immediate environment, because of claims that children are interested in the 'near at hand', cannot be taken too seriously because the research design does not justify total confidence in the findings. The absence of certain themes from the conversation of children with their peers cannot be taken as proof of lack of interest in these themes.

The influence of the teacher in sharing periods is difficult to control. The children's 'sharing possessions' could be restricted by items available at home or by items forced upon a child by a parent. Thus items brought or 'chosen' for sharing would not necessarily reflect the interest of the children. Furthermore, during periods free from outside stimulation conversation could be expected to merely reflect the 'near at hand'; school, home, pets.

The up to date Kirsch and Robinson (1974) research, with a sample of two thousand one hundred and ten first and second year children from ten countries including England, was interesting but did not add significantly to the body of knowledge as far as children of this country are concerned. 28 'Fairy and fantasy tales', the overall first choice of both boys and girls, was also the first choice of the English sample for both years. The research suggests that this theme predominates to a considerable extent at this age level but the observation is not compatible with other work reviewed, (Byers 1964; Beta Upsilon 1974). Significant differences of taste between the sexes showed in the USA sample though not in the international first year sample.

The weakness of this study lies mainly in the sample size and type. More than half of the children were from three cities and suburban
areas of USA. Details of socio-economic background, a factor which might be expected to influence preference, were not given. The total first and second year population of English children was represented by one hundred and ninety-six boys and girls. So far then as English children are concerned this survey can be evaluated merely as an indication of possible trend and as a pointer to further research. Furthermore, the difficulty of establishing validity and reliability for the structured interviews conducted by many investigators in many different countries and cultures forces one to approach these findings with caution. But of interest are the significant differences recorded between countries. One might reasonably expect Northern Ireland, during this time of civil strife, to provide results different from other parts of the United Kingdom.

Two rural studies
As schools in all areas in Northern Ireland will be covered by this survey, it is of interest to note two investigations undertaken in rural schools.

In a general survey of two thousand junior school children, Davies (1969), school librarian for rural Montgomeryshire, found that thirty per cent of children liked stories of animals best. Second came stories of the human world, accounting for twenty-five per cent of preferences, but the first preference of most of the other investigations reviewed - adventure or fairy tales and fantasy came third and fourth with these rural children. This accounted for twenty-four per cent and eleven per cent of choices respectively.

This contrast between the tastes of rural and urban children is supported by Cooper (1973). In his survey thirty-one boys and girls from rural families, age range six to nine years, chose animal stories as first preference. 'Family Situation', the theme for many beginner reading books, appeared as a topic for the first time and was a very close second choice. Fantasy, the third choice of these children, also supports the Davies trends and differs from general trends.

As Davies himself intimates, these results should be viewed with caution because of the inadequacy of the sample but this apparent difference in the tastes of rural children as opposed to urban children directs attention to particular areas for investigation in this present work.

## The folklore of young children

Any review of literature on children's theme preferences could not ignore the work of Iona and Peter Opie (1969) ${ }^{29}$. They maintain that children have a folklore all their own, that the rhymes and sayings passed from child to child are not for adult ears and as such they hold a fascination for children. The Opies' (1969) delightful collection of rhymes fully illustrates this point. They found that children with very different backgrounds shared rhymes and jokes which were basically the same. Their work seems to indicate that class differences may not exist in preference at this age.

## Emerging trends in content preference

For the ten to sixteen year old age group first choice of content is adventure. The studies of Jenkinson (1940), Carsley (1957), Lawrence (1964), N.A.T.E. (1968) and the interim report by whitehead et al (1975) confirm this. As age decreases adventure is still first preference according to the Lawrence (1964) ${ }^{30}$ and Abernethy et al (1967) studies. This is broadly supported by Ellison and Williams (1971) and the results of Hanson's (1973) three story test.

The Beta Upsilon chapter Pi Lambda Theta (1974) survey is a notable exception to the above observed trends. But even though sampling procedure has been criticized suggested trends cannot be ignored. Both boys and girls, ages from seven to ten years, displayed an overwhelming interest in animal stories. These findings are supported by the results of the two rural studies in the United Kingdom, Davies (1969) and Cooper (1973), and by the interest in animals expressed by the six year old children in the Byers (1964) study. In this context it is also worth noting that the Belfast children of the Abernethy et al survey (1967) chose animal stories as second preference. So although the predominant trend for seven to sixteen year old children seems to be quite clearly adventure themes for both sexes there is the possibility that as age decreases the preference may change to an interest in animal themes.

The two investigations concerning very young children, Byers (1964) and Kirsch, Robinson (1974) produce conflicting results. The majority of children in the Byers study were interested in animals while the majority of children from all ten countries in
the Kirsch, Robinson study were interested in fairy tales. In particular, the English children in both first and second year at school rank the fairy tales as first choice. But although first choice of story among the five and six year old children has changed from the adventure themes chosen by older children to an interest in fairy tales and in animals there is no clear trend towards either theme.

## Sex differences in preference

The Jenkinson (1940), Carsley (1957), Lawrence (1964), Byers (1964), N.A.T.E. (1968), Beta Upsilon (1974) and Kirsch and Robinson (overall) (1974) investigations reveal, at first choice level, no differences in theme preference according to sex. Differences do appear from second choice on. This is of particular relevance as the youngest children sampled, the six year olds of the Byers (1964) survey, are included. But Whitehead's (1975) extensive survey with its observed differences in reading tastes between the sexes provides contradictory evidence. It should be noted however, that no children under the age of ten years were sampled in this particular survey, making the results less relevant to this present work.

Social class differences in preference
The position is similar for preference differences according to social class. There is some evidence of differences in the Abernethy (1967), Byers (1964) and Jenkinson (1940) findings although the difference in taste between schools in the Jenkinson findings could be attributed to either intelligence, motivational
factors or social class. But the two studies which set out to explore social class differences in particular, Ellison and Williams (1971) and Hanson (1973), found no significant relationship between social class and content preference. Both these studies were small and the results must be approached with caution.

## Findings related to children under seven years

 Finally, for children under seven years of age in particular, the literature offers only conflicting evidence on the major issue of theme preference. On the dependent issues of difference of preference according to sex and difference of preference according to social class, after first choice, the evidence is also conflicting. The lack of evidence and paucity of research in this field merit further investigation of the subject, especially in Northern Ireland where no relevant research has been undertaken.
## Variables likely to affect content preference

The review of the literature assisted in the delineation of variables likely to influence children's choice: sex and age. The quality of a child's pre-school experience is believed to affect the breadth of his interest in Iiterature in the early stages. As the nature of this experience is closely related to social class, social class was considered a variable likely to influence content preference. Because in Northern Ireland religion is widely used by social scientists to categorize individuals, it was included for pupil characteristics in the present investigation.

Other extraneous variables which could possibly influence preferences are locality of school and type of school and these too were included. The literature indicated that differences in taste may exist between rural and urban children, and accordingly this was taken into account in the investigation.

The variable of school type was controlled in this investigation as children attending the preparatory department of a grammar school might be expected to have, in general, a more literate background than primary school children. It is accepted, however, that this variable is associated closely with social class.

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Basingstoke: Macmillan.
22. One picture from an Enid Blyton cover and three others from reading books all depicted children - classless, middle class, working class and teenager tough-type children.
23. The three story themes were: (a) The adolescent model.
(b) A classless police adventure.
(c) A middle class family going on holiday.
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26. Ibid., p.17.
27. BYERS, 'Pupils Interest', p.228.
28. Countries sampled were Austria, Canada, England, Israel, Italy, Japan, The Netherlands, Panama, Sweden and U.S.A.
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30. Age range of subjects - seven to fifteen years.

## SECTION 2

METHOD

DEVELOPMENT OF THE INSTRUNENT

The instrument most commonly used for investigating reading tastes has been the questionnaire. Where the questionnaire can be completed anonymously, as in the case of older children, it may be acceptable as a measure but with younger children there are difficulties affecting validity. Children of five to six years cannot read or read little and the test has to be administered by a teacher or research worker. The validity of the oral questionnaire is queried on the grounds that young children may anticipate expected responses and structure their answers accordingly.

Although the literature revealed at least three recurring themes adventure, fantasy and animal - it did not yield any ready made instruments which could be used in this study. It was decided to use, in a first pilot study, the procedure suggested in the Open University PE 261 Course Units 15 and 16 Option 2 Early Reading, Activities 4, 5 and 6, for obtaining an indication of children's interest. (Appendix C).

## Report: Pilot Study I

The purpose of the first pilot study was to collect for classification data describing children's story preferences, to try out methods of obtaining this information, to assess administrative procedures and to assess the credibility of the hypotheses.

The study was carried out with thirty-eight boys and fifty girls whose ages ranged from four years to seven years. This disparity in numbers between girls and boys arose because of the decision, justified later in the text, to sample two classes as units. The age range was selected to ensure the greatest possible width to the categorization of theme preference and so allow for the tastes of children at either end of the age range chosen for the main study. The five primary schools chosen for this preliminary investigation were judged to be representative of school types within the Province. They were as follows:
A. A large urban school with an intake from a mixed socioeconomic background. (Enrolment 450).
B. A large urban school in a working class area. (Enrolment 700). C. A medium-sized market town school. (Enrolment 181).
D. An infant school in a working class area. (Enrolment 108). E. A small rural school. (Enrolment 36).

The study was divided into four areas of investigation as follows:
Area I: Choice of theme stated by children during discussions. Area II: Choice of theme read to children.

Area III: Themes of stories dictated by children.
Area IV: Selection of theme represented by a picture. All investigation was on an individual basis and was carried out by the class teacher or, in the case of the younger children, by a parent who had been briefed by the researcher.

Area I: Choice of theme stated by children during discussions Schools A and E:

Schools $A$ and $E$ were chosen as the most dissimilar of the sample schools and both were asked to collect data by the same method in order to evaluate data collection procedure. Three boys and three girls, ages ranging from five years to seven years and representing a cross section of ability as assessed by the class teacher, were chosen from each of these schools. Teachers were asked to spend some time every day for two weeks with each of the twelve children discussing stories they liked. This meant that each child would have ten opportunities to state preference. Theme categories were not suggested to the teachers in an attempt to preclude unconscious manipulation of children's choices. Daily notes were kept and returned for reference. From an evaluation of the information returned from both schools the following five theme categories emerged:
(1) Fantasy tales.
(2) Adventure tales - pirates, cowboys, soldiers fighting.
(3) Themes about animals - mostly wild.
(4) Themes within the children's own experience or immediate environment - home, granny, holidays.
(5) Themes about other people and their work.

A full statement of themes chosen is set out in Tables 1 and 2. For School A a total of fifty-three choices is recorded instead of sixty because of absenteeism.

TABLE I.
Theme Freferences School A: Five to Seven Year Old Chilaren, Fiftythree Choices of Three Boys and Three Girls

| Theme | Preferences |  |  |
| :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total |
|  |  |  |  |
|  |  |  |  |
| Animals | 12 | 7 | 19 |
| Fantasy | 5 | 7 | 12 |
| Adventure | 6 | 0 | 6 |
| Own Experience | 1 | 2 | 3 |
| Other People | 0 | 3 | 3 |
| Circus* | 2 | 3 | 5 |
| Nature | 0 | 4 | 4 |
| T.V. Themes | 0 | 1 | 1 |
|  |  |  | 27 |

* After the first week a circus came to town
** Fifty-three discussions instead of sixty because of absenteeism.

TABLE 2.
Theme Preferences School E: Five to Seven Year Old Children, Sixty Choices of Three Boys and Three Girls

| Theme | Preferences |  |  |
| :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total |
| Animals <br> Fantasy <br> Adventure <br> Own Experience <br> Other People <br> Seaside | $\begin{array}{r} 3 \\ 3 \\ 11 \\ 7 \\ 7 \\ 3 \\ 3 \end{array}$ | 6 6 3 8 3 4 | $\begin{array}{r} 9 \\ 9 \\ 14 \\ 15 \\ 6 \\ 7 \end{array}$ |
| Total | 30 | 30 | 60 |

## School C:

In School C, to vary the method of data collection every child in the PI class of twenty-seven pupils was included and was asked individually and once only what his or her preference for a story was. From the stated preferences of the four year old children (four boys and six girls) fewer theme categories emerged than for the five six and seven year old children of schools $A$ and $E$ but like the older children the most popular themes were animals, fantasy and adventure. (See Table 3).

TABLE 3
Theme Preferences School C: Four Year Old Children, Four boys and Six Girls.

| Theme | Preferences |  |  |
| :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total |
| Animals | 0 | 1 |  |
|  | 2 | 4 | 1 |
| Adventure | 2 | 0 | 2 |
| Own Experience | 0 | 1 | 1 |

The choices of the five year old children (seven boys and ten girls)
from this Pl class fell into the same categories as the younger
children with the addition of 'comic stories'. (See Table 4). It
should be noted, however, the 'comic stories' include fantasy, adventure, animal and everyday themes.

TABLE 4.
Theme Preferences School C: Five Year Old Children, Seven Boys and Ten Girls

| Theme | Freferences |  |  |
| :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total |
|  |  |  |  |
| Animals | 0 |  | 1 |
| Fantasy | 2 | 6 | 8 |
| Adventure | 2 | 7 | 3 |
| Themes from comics | 3 | 2 | 5 |
|  |  |  |  |

School D:
In School D, five boys and six girls, all five year olds and representing a cross section of ability as assessed by the class teacher, were asked once only to choose a theme for a story. In this group Bible Stories were mentioned for the first time but overall the same categories emerged: animal, fantasy, and adventure. (See Table 5).

The overall choices for thirty-eight four and five year old children from Schools C and D showed a preference for fantasy themes, animal themes and adventure themes with comics coming next before any other theme. (See Table 6).

TABLE 5.

Theme Preferences School D: Five Year Old Children, Five Boys and Six Girls

| Theme | Preferences |  |  |
| :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total |
| Animals | 2 | 3 | 5 |
| Fantasy | 1 | 1 | 2 |
| Adventure | 1 | 1 | 2 |
| T.V. Themes | 0. | 1 | 1 |
| Bible Stories | 1 | 0 | 1 |
| Total | 5 | 6 | 11 |

TABLE 6.

Theme Preferences Schools C and D: Four and Five Year Old Children, Sixteen Boys and Twenty-two Girls.

| Theme | Preferences |  |  |
| :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total |
|  |  |  |  |
| Animals | 2 | 5 | 7 |
|  | 5 | 11 | 16 |
|  | 5 | 2 | 7 |
| Own Experience | 0 | 1 | 1 |
| T.V. Themes | 0 | 1 | 1 |
| Comics | 3 | 2 | 5 |
| Bible Stories | 1 | 0 | 1 |
|  | Total | 16 | 22 |

The main themes emerging from the investigations in Area $I$ fell into eleven categories. The most regularly mentioned themes were animal, fantasy and adventure with 'own experience' fourth in popularity. For overall totals see Table 7. For boys in the sample, adventure and animal tales were most popular while for girls fantasy and animal tales were most popular. (See Table 8).

TABIE 7.
Theme Preferences Schools A, C, D and E: The Overall Preference Totals of Four, Five, Six and Seven Year Old Children.

| Theme | Preferences |  |  |
| :--- | :--- | :--- | :--- |
|  | Boys | Girls | Total |
|  |  |  |  |
| Animals | 17 | 18 | 35 |
|  | 13 | 24 | 37 |
|  | 22 | 5 | 27 |
|  | 8 | 11 | 19 |
| Other People | 3 | 6 | 9 |
| Circus | 2 | 3 | 5 |
| Nature | 0 | 4 | 4 |
| Seaside | 3 | 4 | 7 |
| Comic Themes | 3 | 2 | 5 |
| T.V. Themes | 0 | 2 | 2 |
| Bible Stories | 1 | 0 | 1 |

N.B. 12 children in schools $A$ and $E$ had a total of 113 choices.

TABLE 8.
Order of Theme Preferences by Sex, Schools A, C, D and E: Four, Five, Six and Seven Year Old Children.

| Sex | Preference | Theme | Total |
| :---: | :---: | :--- | :--- |
|  | Ist | Adventure | 22 |
|  | 2nd | Animals | 17 |
|  | 3rd | Fantasy | 13 |
| Girls | Ist | Fantasy | 24 |
|  | 2nd | Animals | 18 |
|  | 3rd | Own Experience | 11 |

This would indicate that young children look outside their own experience for themes and that difference in taste does exist between the sexes at this age. Difference in frequency of choice also appeared between the large town school (School A) and the small rural school (School E). The children of the small school were most interested in themes relating to their own experiences while the children in the town school were not. (See Tables 1 and 2, p.39). This seems to indicate that differences in taste may be influenced by the location of the school, a trend also noted when reviewing the Iiterature.

Area II: Choice of theme read to children
School B:
This investigation of pupils' preference through story telling by the teacher was conducted with a class unit. Atmosphere contributes greatly to the enjoyment of stories by young children and the best atmosphere is created when the whole class is involved. The following stories were read to a class of thirty-four seven year olds, fourteen boys and twenty girls, in a large urban school in a working class area:
(a) 'How the Bee Became' from 'How the Whale Became and Other Stories' by Ted Hughes ${ }^{1}$ - a fantasy.
(b) 'The Tale of Mr. Tod' by Beatrix Potter' - a fantasy with animal characters.
(c) 'Where we Go', from 'Ladybird Book 5a'3 - walking with Mother and Father - everyday experiences.
(d) 'The Pirates' from 'McKee Platform Readers,'4 - adventure story. After a week each child was asked which of the four stories he would like to hear again. The most popular story was the animal story 'The Tale of Mr. Tod' which was chosen by seventeen children. Next
in popularity came 'How the Bee Became', a fantasy tale. This was chosen by eleven chilaren. The adventure tale of pirates was not nearly so popular and 'Where We Go', representing close environment, was chosen by only one child. (Table 9)

TABIE 9.
Theme Preferences School B: Seven Year Old Children, Fourteen Boys and Twenty Girls

| Theme | Stories | Preferences |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Boys | Girls | Total |
| Animal <br> Fantasy <br> Adventure <br> Close Environment | Tale of Mr. Tod How the Bee Became Pirates Where We Go | 7 4 2 1 | $\begin{array}{r} 10 \\ 7 \\ 3 \\ 0 \end{array}$ | $\begin{array}{r} 17 \\ 11 \\ .5 \\ 1 \end{array}$ |
|  | Total | 14 | 20 | 34 |

The results of this investigation show a clear preference for animal
or fantasy themes. Although these findings are in line with the main categories emerging from the inquiry in Area $I_{9}$ it must be remembered that the categories were limited by the choice of story told.

Area III: Themes of stories dictated by children
Four children, two boys and two girls, ages ranging from five years and three months to six years and six months were asked to tell a story to their mothers who made a note of the stories as the children told them. All tales began with 'Once upon a time ...' and they all had an ending, an indication that young children can
be aware of story form. The themes were a combination of fantasy, animal and the children's own experiences which in the case of one of the boys, reflected influences of violence in the community. These dictated tales supported the other findings that fantasy and animal themes are of high interest level in this age group. (See Appendix D).

## Area IV: Selection of theme represented by a picture

Schools A and E:

The same three boys and three girls, ages ranging from five years to seven years and representing a cross section of ability, chosen from each of schools $A$ and $E$ were selected to express theme preference through picture choice. From different sets of pictures, children were asked to choose one about which they would like to hear a story.

The first set of pictures was chosen from story books for children, the second set from the reading scheme being used and the third set was made up of six sets of three pictures, one from a story book, one from a reading scheme and one from children's own paintings depicting something about which they would like to hear a story. Teachers were not restricted to picture content or form in the hope that a wide variety of themes would be included.

In School A fantasy, adventure and animal themes were clearly most popular. In School E adventure themes were popular but unlike School A were not first choice but third. (See Table 10). These children preferred themes which were within their own experience. Most of the children lived on farms and their interest in farming was reflected in their selections.
TABLE 10.
Preference of Theme from Pictures, Schools A and E: Five, Six and Seven Year Old Children, Three Boys and Three Girls from Each School

| Pictures | No. | Themes | Preferences School A |  |  | Preferences School E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Boys | Girls | Totals | Boys | Girls | Total |
| Story book | 6 | Fantasy <br> Adventure <br> Animals <br> Other people <br> Own Experience Others | 2 1 0 0 0 0 | $\begin{aligned} & 3 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 5 \\ & 1 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 1 \\ & 0 \\ & 1 \\ & 1 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 1 \\ & 2 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 1 \\ & 0 \\ & 2 \\ & 3 \\ & 0 \end{aligned}$ |
| Reading Scheme | 6 | Fantasy <br> Adventure <br> Animals <br> Other People <br> Own Experience Others | 1 1 1 0 0 0 | $\begin{aligned} & 2 \\ & 1 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 3 \\ & 2 \\ & 1 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 1 \\ & 0 \\ & 0 \\ & 2 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 1 \\ & 0 \\ & 1 \\ & 1 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 2 \\ & 0 \\ & 1 \\ & 3 \\ & 0 \end{aligned}$ |
| Above pictures plus children's own drawings | 18 | Fantasy <br> Adventure <br> Animals <br> Other people <br> Own Experience Others | 2 1 0 0 0 0 | 2 1 0 0 0 0 | 4 2 0 0 0 0 | 0 0 0 1 2 0 | 0 0 0 0 2 1 | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 1 \\ & 4 \\ & 1 \end{aligned}$ |

Although children were presented with a large number of themes their preferences fell into the small number of categories emerging from the study in Areas I, II and III. The selections made by these children were consistent with those made by them in the Area I study in which they took part, again revealing differences of preference between the large town school and the small rural school.

## Results: Pilot Study I

## Theme categories

On the basis of the repetition of themes in each of the different studies within the pilot study it was decided to include the five most popular categories in the instrument for the main investigation. But the theme preferences of some children were falling into the category 'adventure' because 'soldiers, war and fighting' themes were included in this classification. This seemed to indicate that Northern Ireland children were showing a strong interest in themes of violence. It was decided therefore to remove the theme of war and fighting from the 'adventure' classification and present it as a category on its own so that the interest in violence, if present, might be explored. Thus the developed measure for theme preference would include the following categories:
(a) Fantasy.
(b) Adventure.
(c) Animals.
(d) Within own experience or close environment.
(e) Other people and their work.
(f) War and fighting

The complete range of themes emerging from the pilot study is included in Appendix E.

## Collection of data and administrative procedure

To determine the most effective procedure for eliciting theme preferences discussions were held with teachers who carried out the pilot studies and who administered the procedures on trial. Those who questioned children over a period of ten days about their choice of theme were agreed that children very soon became bored with the whole project and towards the end of the period obviously gave impulsive replies in order to terminate the interview. Other children endeavoured to please the teacher by suggesting stories very recently read or told to them. Notes of these discussions had to be written up and in the opinion of all the teachers this was not practical even in average-sized classes. The same teachers took part in the picture test and all agreed that administration was much less time consuming, that the interest of the children was held to the end of the test (the last picture) and that pictures produced more valid data because they cut across language difficulties. It was decided, as a result, to use pictures representing the six categories mentioned above as the main stimuli for eliciting theme preference.

## Development of Picture Tests

The first major decision was whether or not to use coloured pictures. It is accepted that about twenty per cent of the population have either deviations or colour weakness sufficiently obvious to affect daily life ${ }^{5}$. About seven and a half per cent of the male population of this country suffers from defective colour vision resulting in an inability to perceive red or green
in the normal way. Red is sometimes not seen at all. ${ }^{6}$ As colour defects are rare in females ${ }^{7}$ multi-coloured pictures, if used as a measure for both boys and girls, would seem to discriminate against boys and so introauce bias affecting the validity of the test. It was decided therefore to use single colour pictures.

In search of the most suitable basic colour for the pictures the work of Winch (1910) ${ }^{8}$ was considered. Having studied the colour preferences of two thousand children about the age of six years he concluded that children change from a preference for red to a preference for blue at this age. Katz and Breed (1922) ${ }^{9}$ investigating colour preference with a sample of two and a half thousand children supported the Winch findings and concluded that blue was most frequently chosen even by five year olds. Later support for the above findings comes from Alschuler and Hattiwick $(1947)^{10}$ and Valentine (1962) ${ }^{11}$ and the former add that children have an increased preference for blue even from four years and six months. Furthermore blue and yellow vision are only defective in rare cases. 12

Blue therefore seemed the colour best suited to the age range of the study and the colour least likely to introduce bias through defective visual perception of the subjects.

It cannot be taken for granted that young children look at pictures and perceive the central theme represented. Instead they often pay attention to relatively unimportant details. 13 Dwyer (1967) 14 suggests that excess detail in photographs decreases learning.

Pictures crammed with detail may then confuse young children to the extent that the main theme of the picture is obscured. Line drawings seem to be more easily interpreted by them. ${ }^{15}$ Furthermore because boys may be more field-independent than girls, ${ }^{16}$ girls could be expected to have more difficulty in picture perception. ${ }^{17}$ To allow for this difference in cognitive style between the sexes and to endeavour to maintain validity it was decided to use outline pictures, with as little distraction as possible in the background.

The subject content of these pictures, to represent the six theme categories which emerged from Pilot Study $I$, was decided upon by the researcher. The fantasy theme, which had to be divorced from real life situations, seemed to be best represented by a dragon flying through the air above a castle. To distinguish between the fantasy theme and the theme of adventure the latter had to be set in a realistic background. A 'Cowboys and Indians' picture seemed best suited to represent, for both boys and girls, adventure themes as few children have not come in contact, through cinema, television or comic pictures with the 'Western Adventure'. The close environment theme seemed ideally represented by a mother nursing a baby outside a house. Wild animals were chosen to represent the animal theme. This representation could be said to impinge on the adventure theme but if domestic animals were to be chosen it is more probably that the representation would be interpreted as close environment. The theme of war and fighting seemed adequately represented by the picture of a soldier with a gun standing near a tank. The theme, other people and their work, was a difficult theme to represent as. pictures of, for example, nurses, lorry, bus and train drivers, or
farmers, were regarded as having inherent sex bias. A nurse and doctor could have been used but children may quite likely reject a picture like this for reasons other than a lack of interest in other people and their work. A shop interior with male and female attendants might have been chosen but this was considered too similar to the close environment theme of Picture II. An ideal picture lacking in sex bias would have been a policeman and policewoman on the beat but in Northern Ireland this would certainly be measuring something quite different from that which was intended. Finally it was decided that the fire service, though male, could best represent people whose life and work might hold an interest for young children of both sexes.

An artist was asked to prepare six pictures within the above confines and measuring twenty five by eighteen centimeters. The finished pictures were:

Picture I Fantasy (dragon).
Picture II Close Environment (mother and baby).
Picture III Adventure (cowboys and Indians).
Picture IV Other People and Their Work (firemen).
Picture V A Animals (wild animals).
Picture VI War and Fighting (a soldier and tank). (For scaled down reproductions of these pictures see Appendix $F$ ). Xerox copies of the pictures were prepared and from these, copies were made for circulation to the schools.

## Pilot Study II

In a second pilot study, a set of pictures in the form intended for circulation to schools, was tried out with a Primary I class in a large urban school situated in a working class area. This school was chosen as it was expected that children from this environment might possibly have more difficulty interpreting the pictures than those from less deprived areas. Twelve boys and eleven girls took part. In contrast a rural school was also chosen. Here sixteen boys and fifteen girls were sampled. The test was carried out by the researcher who interviewed children singly in a room apart from the classroom. Each child was asked to look at each of the six pictures, one at a time, and say what theme it represented.

In the urban school children identified the themes correctly for all pictures except in two instances. One boy thought that Picture $I$ (dragon and castle) represented a church, and one girl said Picture III (cowboys) was about 'a man, his horse and a tent' which reply possibly did not completely miss the adventure theme. In the rural school all themes were successfully identified by all children. On the basis of these investigations it was concluded that the pictures were a reliable instrument.

## Instructions for Administration

As the survey required the taking of a random sample and, as it was quite impossible for the researcher to visit over one hundred schools, printed directions for the taking of such a sample had to be made available for teachers administering the tests. An instruction sheet was prepared and when this was piloted with University and

College of Education students it became evident that a more detailed sheet was necessary. A second pilot study showed the more detailed sheet to be functional. Copies of it and of a sheet of random sampling numbers were made for each school. (Appendix G).

A sheet giving administration instructions and two data collection forms were also prepared. These were also piloted with students and after the first pilot study were found to be satisfactory. (See Appendix H).

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## AIMS AND SCOPE OF THE INVESTIGATION

## Aims

The main purpose of this research was to elicit the theme preferences of children at the beginner reader stage. This stage will vary in time for different children because of developmental factors but many children will have reached it towards the end of the first year in school.

The first stage of the research was to develop and pilot an instrument which would be a valid means of finding out the theme preferences of very young children. Three major areas of investigation were covered by the study.

1. The relative influences on theme preferences, as measured by a Picture Test,
by (a) pupil characteristics: sex; age; religion; social class; illustration of a chosen theme and reading scheme in use.
(b) school characteristics: school type; school size; school sex; school location and Area Board.
2. The relative influences on children's statement of theme through their own illustrations,
by (a) pupil characteristics
(b) school characteristics

Illustrated themes were also investigated as a cross validity measure.

## 3. A survey was undertaken of reading schemes used in Northern Ireland schools to teach beginners to read.

A secondary aim was to investigate boys' interest in themes of violence.

Sample
The population sampled was all Primary I pupils in primary and preparatory schools in Northern Ireland. It was decided to take a random sample and a two stage design was chosen as being the most practical for a single researcher sampling such a large population.

Out of 1110 primary schools in Northern Ireland only 1096 have Primary I classes because fourteen of the primary schools have no infant department. ${ }^{1}$ (See Appendix 1). A sample size of 110 schools representing approximately one tenth of the total number of schools with Primary I classes was judged sufficient to meet the analysis needs of the investigation.

Preparatory schools in Northern Ireland number thirty-six. Because of the small proportion of preparatory schools to primary schools it was decided to sample preparatory schools separately in order to obtain a representative sample so that theme preference differences between school types could be investigated. A sample size of six was considered sufficient.

Collecting data from very young children is arduous work and as the data collection procedure was to be fairly time consuming, a maximum of ten children from each class was considered to be a realistic sample size.

The difference between the total numbers of boys and girls in Primary I classes was not considered wide enough to justify proportionate sampling of the sexes so it was decided to sample five children of each sex.

The five area boards in Northern Ireland supplied lists of all their primary schools: controlled schools, voluntary schools and maintained voluntary schools. The Department of Education gave details of the number of preparatory departments in Northern Ireland and also identified the fourteen primary schools having no. infant departments.

The primary schools in each area were listed in alphabetical order by the local authorities. A sampling frame was compiled by placing the lists in the following order:

1. The Western Education and Library Board Northern Ireland.
2. The Southern Education and Library Board Northern Ireland.
3. The North-Eastern Education and Library Board Northern Ireland.
4. The South-Eastern Education and Library Board Northern Ireland.
5. The Belfast Education and Library Board Northern Ireland.

Using a table of random numbers, a random sample of one hundred and ten schools was drawn. The same procedure was followed for the thirty-six preparatory schools and a random sample of six was drawn.

A letter was sent to the Principal of each school selected, explaining the nature of the study and askine for co-operation in the investigation. $A_{\text {reply }}$ form and stamped addressed envelope were enclosed. (See Appendix J). At this stage schools were asked to state which readine scheme was being used in the Primary I class. Young children's writing can be influenced by what they read. Iikewise, that what they read may influence their theme preferences seems reasonable speculation. Accordingly the reading scheme used by each child at the time of the data collection is considered a relevant variable.

Out of the hundred and sixteen schools dirawn in the sample nine primary school principals and one preparatory school head teacher refused to take part in the investigation. One hundred and one primary school principals and five preparatory school head teachers agreed to take part, many with enthusiasm.

A simple random sample of five boys and five girls was drawn from Primary I classes. Where classes were composed of less than ten pupils data was returned for all children in the group. The sheet of instructions and table of random numbers, sent to each school, would ensure that sampling procedure was uniform and that random samples were meticulously taken.

## Data collection

A postal survey was considered the most appropriate means of data collection. While both pilot studies were being carried out there was on-going personal contact between the teachers involved and the
researcher. It was accepted that this ideal amount of involvement would be impossible to maintain during the main survey covering over one hundred schools across the Province. The advantages of a postal survey; relatively low cost, insensitivity to distance, speed of collection of data, suitability to respondents' needs, avoidance of non-contact with subjects through absence (Moser and Kalton 1971$)^{2}$ apply to the survey under consideration. Additionally, a postal survey using class teachers to administer the tests would overcome the problem of rapport, a sensitive one with very young children.

The potential weaknesses of such an approach, the main one being the risk of non-response could be counteracted by telephone communication since all schools have telephones installed. Likewise should any difficulty arise in the field, schools would be able to communicate with the researcher by telephone.

In schools in Northern Ireland children are generally admitted to Primary I classes in September. Consequently by May of the following year most children in Primary I classes would have progressed through the premreading stage. At this point, the mastery of a new skill is less motivating to the beginner reader. It is at this particular time that a child's interest in content is of vital importance, and this interest should be reflected in the books he is expected to make the effort to read. For this reason, May was chosen as the month most suitable for data collection for this investigation. Fortunately it is also the month, before the hectic final month of term, when teachers have more time to take part in an inquiry of this nature. The time limit settled for returned data was 1 st September 1977 to ensure that all subjects had
been sampled at the end of the Primary I year.

In May a pack containing the following was posted to each school:

1. Six pictures numbered $a, b, c, d, e, f$. (Appendix F)
2. Two data collection forms. (Appendix H)
3. One sheet of instructions for selecting a random sample. (Appendix G)
4. A table of random numbers.
5. An administration sheet. (Appendix H)
6. A stamped addressed envelope for return of data.
7. An expression of thanks to principals and head teachers for agreeing to take part in the investigation.

To ensure standardization of the conditions of administration the administration sheet set out clearly how teachers were to collect and record, on the forms provided, data on children's picture choice. Pupils were consulted individually and a break of at least one day was allowed between each presentation of the six pictures. In an attempt to avoid the distorting influence of the Hawthorne effect all teachers were asked to pose the question 'Which picture would you like to hear a story about?'

The word 'story' was considered the most suitable word to use here as young children do not understand the word 'theme'. As they would not yet have acquired the skill of reading, to ask them what they would like to read about seemed inappropriate.

Data was collected in the following way:
Children were asked to rank the six pictures using a system of repeated selection over a period of five days.

## Day 1

The child was presented with the six pictures and asked Which picture would you like to hear a story about?'

Day 2
The child was presented with five pictures, the one chosen by him on the previous day having been removed, and the question, 'Which picture would you like to hear a story about?' was asked again. Day 3

The child was presented with four pictures, two pictures having been removed, and the above question was repeated.

This procedure was repeated for days four and five until one picture remained.

Each day the child was selecting a picture as first choice from those presented to him. But as that particular picture was removed from the group before the next time of selection, the child was in effect ranking the pictures one to six and also placing them in order of preference, first to sixth.

Teachers were asked to record daily, on the form provided, the child's selection of picture. They were not asked to code the responses.

Children sampled were also asked to draw a picture of something about which they would like to hear a story. A description of the picture, in the child's own words, was written by the teacher on the back of the drawings which were returned to the researcher for classification. This information was collected as a cross check although it is acknowledged that other possible confounding variables are present. For example a child may wish to hear a
story about a dragon but because he has not acquired the necessary manipulative technical and imaginative skills he is unable to commit his particular idea to paper and may settle for a house or some other easily represented subject.

These illustrations were drawn in class after the Picture Test was completed. Children, therefore, are likely to have had in mind the pictures already presented to them and it could be said that this directly influenced illustrations. But the picture most popular and rated as first by each child would have been seen by that child once only, and the least popular pictures would all have been viewed more than once. It was considered that a child's statement of theme by illustration would be more discriminating following the stimulation of the Picture Test and that this advantage would outweigh any possible disadvantage. A common complication when working with young children is enabling them to understand the nature of the task. In trying to overcome this, teachers may have prompted children, unwittingly introducing bias. It was assumed that the experience of the Picture Test, administered over a period of a week would help the children in task identification and so reduce the likelihood of distortion.

Each child's sex, age and parent's occupation were requested. Sex was identified on data collection forms by 'M' for male and ' $F$ ' for female to eliminate error through indistinguishable christian names. Age was asked for on both forms as a cross check.

Throughout the data collection period the researcher maintained contact with schools by telephone and correspondence and several schools were visited.

Of the hundred and one primary schools agreeing to take part in the investigation one was closing down during the year and on reflection the Principal decided to opt out, thus diminishing the sample size to one hundred. After receiving the picture test and administration details a further two schools declined to take part so a return of ninety-eight sets of data was anticipated for primary schools. However, one set of data was lost in the post, two sets were not returned in time for inclusion and four sets were not returned at all, although repeated effort was made to collect all outstanding material. It was essential that the time limit on returned data should be observed and only the ninety-one sets returned by Ist September 1977 were considered. This represents for primary schools a returned sample of $90.09 \%$ of the total number agreeing to take part, a figure well above the accepted level of $80 \%$ plus ${ }^{3}$. It is also worth noting that $82.73 \%$ of the original sample of 110 was received. (Table 11)

Five preparatory schools out of a drawn sample of six returned data representing a return of $83.33 \%$ (Table 11 ). These return figures for both types of school clearly eliminated the possibility of bias due to non-response.

TABLE 11

The Sample of Schools and The Responses Returned

| Sample Description | Primary <br> Schools | Preparatory <br> Schools |
| :--- | :---: | :---: |
| Drawn sample <br> Sample agreeing to take part | 110 | 6 |
| Schools closing <br> Schools declining after sight. <br> of tests <br> Responses lost in post | $\ldots$ | 5 |
| Non return of data <br> Late return of data | 1 | 1 |

Furthermore, in stage one a sample of ninety-six out of a total of 1096 schools was returned, a ratio of 1 : 11 and in the second stage out of a target population of 30,439 children a sample of 899 was returned making the sampling ratio 1: 33. In comparison, the Whitehead et al (1977) ${ }^{4}$ survey team judged a sampling ratio of 1 : 75 for schools and 1 : 200 for population to be adequate. The key to the validity of the result of any research is the sampling procedure. This study sample can confidently be regarded as representing children in Primary I classes in Northern Ireland schools. The first stage of the two stage sampling was carried out by the researcher, and there is no reason to suspect that teachers introduced bias during the second stage. Instructions for the
drawing of a random sample were specific and feedback from schools indicated that these were followed with meticulous attention to detail.

The location and classification of the schools in Northern Ireland taking part in the investigation can be seen on the map of the Province, Figure I, page xvii.

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## CHAPTER V

## DESCRIPTION OF THE SAMPLE

As each school returned data, the school was identified on a master sheet which listed the total school sample. Data return forms were then scrutinized for error or omissions and schools were contacted where necessary. But where omissions for any part of the picture test occurred because of absence these subjects were eliminated from the investigation. The eight hundred and ninety-nine children, 433 boys and 466 girls, who completed this part of the inquiry were the subjects of the final analysis.

Five types of variables were collected for each subject: individual characteristics; school characteristics; reading scheme usage; illustrated themes and the thematic picture test.

Individual Characteristics

## Age

Table 12 shows the subjects' ages ranged from four to six years old. As expected, the majority of the sample fell into the five years plus age range with least in the six years plus range.

TABLE 12
Ages of Boys and Girls Sampled

| Age | Number of Pupils Sampled |  |  | Percentage of Pupils Sampled |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total | Boys | Girls | Total |
| Four Years Plus | 85 | 111 | 196 | 19.63 | 23.82 | 21.80 |
| Five Years Plus | 290 | 318 | 608 | 66.98 | 68.24 | 67.64 |
| Six Years Plus but not Seven | 53 | 32 | 85 | 12.24 | 6.87 | 9.45 |
| Unclassified | 5 | 5 | 10 | 1.15 | 1.07 | 1.11 |
| Total | 433 | 466 | 899 | 100.00 | 100.00 | 100.00 |

Social class
The data on father's occupation were coded according to the Registrar General's Social Class (1966)¹. Social Classes I and II were classified together as were Social Classes III, IV and V. The sample included many rural schools and consequently many parents who were farmers. These were all placed on scale II. It is acknowledged that this classification may be misleading but as the Registrar General's scale has been estimated as the best for general use in educational research in Britain (Robertson 1974) ${ }^{2}$, its use in this investigation follows normal practice (e.g. Wilson 1971) ${ }^{3}$.

Some schools declined to disclose fathers' occupations and several were unable to obtain the information. The reasons for this are understandable in Northern Ireland today. Because of civil strife there are children whose fathers are in prison and there are also parents who would not wish their occupations disclosed to unknown sources. Because of this, forty-six subjects remained unclassified as far as social class is concerned. (Table 13)

TABLE 13
Social Class of Boys and Girls Sampled

| Social Class | Number of Pupils Sampled | Percentage of Pupils Sampled |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | Total | Boys | Girls | Total |  |
|  |  |  |  |  |  |  |  |
| I and II | 162 | 166 | 328 | 37.4 | 35.7 | 36.48 |  |
| III, IV and V | 248 | 277 | 525 | 57.3 | 59.4 | 58.40 |  |
| Unclassified | 23 | 23 | 46 | 5.3 | 4.9 | 5.12 |  |
|  |  | 433 | 466 | 899 | 100.0 | 100.0 | 100.00 |

Religion
Religious difference, Catholic or Protestant, was obtained by classifying schools according to whether they were controlled, voluntary or maintained. In the primary sector forty-seven schools were controlled and forty-four were voluntary or maintained. The five preparatory schools, though voluntary, were known to be Protestant making a total of fifty-two Protestant schools and fortyfour Catholic schools. But it cannot be assumed that all voluntary schools are Roman Catholic, some are Protestant and some schools have a mixed intake. Therefore this initial classification was checked using the procedure adopted by Darby et al (1977) ${ }^{4}$ It was found to be accurate.

## School Characteristics

Area Board
Geographical position was considered for each school, by classifying schools according to Education and Library Board Areas, of which there are five in N. Ireland. Each board has a list of schools and institutions of further education and these lists were used for classification.

## School locality

In an effort to classify schools according to locality a definition of 'rural' as applied to Northern Ireland was sought. Approaches to the Department of Education Northern Ireland and the Registrar General's Office Northern Ireland were unsuccessful in obtaining a working definition and consequently an arbitrary placing of schools according to locality had to be undertaken.

On the basis of personal knowledge of the Province it was decided that three categories, rural, urban and provincial-urban would afford a
more accurate classification of locality than the two categories rural and urban, as it would be inaccurate to classify most of the smaller towns in Northern Ireland as urban. These towns, while not strictly rural either, are nevertheless more rural than urban in that they serve a close rural hinterland. A more specific classification of such towns was judged to be 'provincial-urban'. In order to standardize the classification of locality, schools in areas of population of 15,000 or over were classified as 'urban', those in areas of population of between 15,000 and 2600 as 'provincialurban' and those in areas of under 2600 as rural.

All areas were classified according to the Census of Population 1971 except for three. 5 Since the 1971 census Antrim town has expanded and the population increase is such that it would seem more precise to consider schools in this area as urban. The same is characteristic of some of the previously named 'rural' areas in the Belfast, Lisburn and Lurgan (Craigavon) districts and accordingly schools in these areas were also classified as urban. As expected a large number of children sampled, 556, were from rural areas. (Table 14)

TABLE 14

Classification of Locality of School and Boys and Girls Sampled

| Locality of School | Number of Schools Sampled | Number of Pupils Sampled |  |  | Percentage of Pupils Sampled |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Boys | Girls | Total | Boys | Girls | Total |
| Urban | 24 | 133 | 150 | 283 | 30.7 | 32.2 | 31.6 |
| Provincial-urban | 7 | 35 | 25 | 60 | 8.1 | 5.4 | 6.6 |
| Rural | 65 | 265 | 291 | 556 | 61.2 | 62.4 | 61.8 |
|  | 96 | 433 | 466 | 899 | 100.0 | 100.0 | 100.0 |

School size
The sample would be expected to reflect the fact that, of the 1110 primary schools in Northern Ireland, 664 (59.8\%) have enrolments of 150 or under and do not qualify for an allocation of one teacher per class. ${ }^{6}$ Because of this many children are educated in classrooms catering for more than one yearly age range of pupils. Classes combined tend to be Primary I and Primary II. It is possible that children at the primary one stage who share classroom experiences with older children, and who may be influenced by them, may differ in story preference from those children who are taught within their own age group. To account for this schools were classified according to size.

School staffing, from information supplied by the Area Boards, was taken as the deciding factor in categorization, as the number of staff in a school is a more accurate criterion for this purpose than the number of children on rolls. It was assumed that in schools with four members of staff or less primary one children would almost certainly be educated with older children. The exception would be in a new school serving a very recently expanded area but no such school appeared in the sample.

The schools were therefore classified according to whether the staff numbered five teachers and over or four teachers and under. (Table 15)
table 15
Size of School and Boys and Girls Sampled

| Size of School | Number of <br> Schools <br> Sampled | Number of <br> Pupils Sampled | Percentage of <br> Pupils Sampled |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys Girls Total | Boys | Girls | Total |  |  |  |
| Five Teachers Plus <br> Four Teachers and <br> Under | 50 | 252 | 276 | 528 | 58.2 | 59.2 | 58.7 |
| Total | 96 | 181 | 190 | 371 | 41.8 | 40.8 | 41.3 |

## School Sex

Schools were also classified according to whether they were mixed or single-sex schools. Of the ninety-six schools ten were single sex.

## School Type

Finally schools were categorized as primary or preparatory as noted previously.

## Reading Scheme Usage

On the initial reply form principals were given the opportunity, after they had stated the main reading scheme, to list other reading schemes in use at beginner level. Although several schools used more than one scheme, only the main schemes, of which there were nine, were taken into consideration when classifying subjects according to the reading scheme which was being used to teach them to read at the time of the investigation. Table 16 shows that $83.7 \%$ of pupils were learning to read through the medium of one of the following 'Ladybird', 7 'Happy Venture', 8 'Janet and John', 9 and 'Through the Rainbow'. 10
TABLE 16.

| Reading <br> Scheme | Date Published | Number of <br> Pupils in Sample Using Scheme | Percentage of <br> Pupils in Sample Using Scheme | Number of <br> Schools in Sample <br> Using Scheme | Percentage of Schools in Sample Using Scheme |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ladybird | 1964 | 347 | 38.6 | 34 | 35.4 |
| Happy Venture | 1939 | 192 | 21.4 | 21 | 21.9 |
| Janet and John | 1949 | 121 | 13.5 | 15 | 15.6 |
| Through the Rainbow | 1964 | 91 | 10.2 | 10 | 10.4 |
| Breakthrough to Literacy (Materials) | 1970 | 40 | 4.4 | 4 | 4.2 |
| Dominoes | 1972 | 39 | 4.3 | 4 | 4.2 |
| Racing to Read | 1970 | 31 | 3.4 | 4 | 4.2 |
| Kathy and Mark | 1970 | 28 | 3.1 | 3 | 3.1 |
| Gay Way | 1950 | 10 | 1.1 | 1 | 1.0 |
| Total |  | 899 | 100.0 | 96 | 100.0 |

## IIlustrated Themes

Subject's choice of theme as indicated by illustration was returned for 849 children. These illustrations, described in the children's own words, were individually examined by the researcher and classified one to six for theme category using the same classificatory criteria as the test pictures. (Table 17) Pictures which did not slot easily into any of the six categories were coded 'seven'.

TABLE 17
Classification of Children's Illustrated Themes

| Classification of <br> Illustrated Themes | Boys | Girls | Total |
| :--- | :--- | ---: | :--- |
|  |  |  |  |
| 1. Fantasy | 89 | 124 | 213 |
| 2. Close Environment | 81 | 198 | 279 |
| 3. Adventure | 82 | 30 | 112 |
| 4. Other People | 56 | 28 | 84 |
| 5. Animals | 42 | 46 | 88 |
| 6. War and Fighting | 54 | 6 | 60 |
| 7. Unclassified | 4 | 9 | 13 |
| 8. Non-returns | 25 | 25 | 50 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Just thirteen pictures fell into category seven representing stories about Jesus, Queen Elizabeth and Santa Claus. Bible story themes are so varied that it would be impossible to know which type of theme children were referring to or whether they were interested primarily in the person of Jesus. So to classify this type of response could not have been undertaken with any degree of accuracy. The Santa Claus theme was judged to be a special category and was mentioned by only one child. Stories about the Queen came from children in areas visited by the Queen on her Jubilee celebration visit to Northern Ireland and these were not included in categories one to six because of the known specific influence.

To assess the validity of the above classification a sample of nine schools was drawn by selecting every tenth school on the sampling frame. All pictures in each of these schools were independently classified. Children's own descriptions of pictures, written on the back by class teachers, were applied to the given list of categories, the characteristics of which were carefully explained to the independent assessors. They were asked to include fairy tales, dragons, ghosts, Dracula and like titles in the fantasy category. Only those pictures explicitly stated by children to represent war and fighting were to be included in category six. The location of schools was given to assist in delineating between 'Close Environment' and 'Other people and Their Work'. For example a farm scene could be either, depending on the area in which a child lives.

Out of a selection of sixty-six pictures $92.4 \%$ were assigned to the categories used by the researcher. Two of the five which were allocated to a different category came from a school sample where the teacher had omitted the child's spoken description and the interpretation depended solely on the individual perception of the picture painted. The third difference arose from the interpretation of a picture captioned 'This is the three goats and the wolf' which was classified as 'Fantasy' by the researcher but as 'Animals' by the assessors. The class teacher had noted that this child was fond of animal stories but the original classification was made, as for 2.11 pictures, on the caption alone. The remaining two pictures again came from the same school sample. 'Lots of people looking at goats, and they do not like the goats' was judged by the researcher to have an adventure element and accordingly was classified
'Adventure' but in the second classification it was assigned to category five, stories about animals. The fifth picture which differed was a seaside scene, by a child in the heart of County Armagh, and there was a difference of opinion as to whether this should be classified as 'Close Environment' or 'Other People and Their Work'.

## Thematic Picture Test

The data collected on theme preferences as indicated by children's ranking of the six Test Pictures combines two kinds of information, viz:
(1) How each picture is ranked one to six.
(This aspect is referred to as 'ranking').
(2) By which picture each place, first to sixth in the
individual's ranking of pictures is filled.
(This aspect is referred to as selection).
Data was therefore coded in two ways.

Firstly, the rank order one to six, given to each picture by each child, was coded one to six e.g.

|  | Pictures |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | I | II | III | IV | V | VI |
| Subject 001 | 4 | 6 | 5 | 3 | 2 | 1 |

Data was presented in this form to facilitate the exploration of a possible relationship between the rankings given to the individual pictures and the listed variables.

Secondly each child's picture selection, first to sixth was also coded one to six according to the picture which filled each selection position, e.g.

| Sample | Selection |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ist | 2nd | 3rd | 4th | 5th | 6 th |
| Subject 001 | 6 | 5 | 4 | 1 | 3 | 2 |

This alternative form of presentation of data was used so that the order of children's selection of the pictures could be studied to examine the pattern of selection followed by different groups of children.

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## SECTION 3

RESULTS

## Introduction

An initial analysis was carried out to establish the pattern of reading scheme usage in the representative sample of primary schools and preparatory schools separately. Unlike other analysis this analysis was based on schools and not on pupils. The reply form asked principals to. include details of reading schemes used. Eight primary school principals and one preparatory school principal who were unwilling to participate in the research project did nevertheless give this information. Because of the additional number of schools in this part of the investigation and the separating of primary and preparatory schools for analysis details of school characteristics will not correspond to those tabulated previously.

Reading Scheme Usage in Northern Ireland Primary Schools

Overall usage
Out of a sample of 110 primary schools ninety-nine, $90 \%$, returned details of material used to teach reading in Primary I classes.

If only the main reading scheme in a school is considered 'Ladybird' is found to be the most used series. Reading is taught mainly through this medium by $35.35 \%$ of schools in the sample. 'Happy Venture' is used by $22.22 \%$ of schools and 'Janet and John' by $15.15 \%$. This shows a rather limited range in the choice of reading materials. Overall. 72.72\% of this sample of Northern Ireland schools teach children to read through using one of these three schemes. The
stated range of material used to teach reading throughout the sampled schools is presented in Table 18.

When the supporting schemes, second and third, are taken into account the same dependency is reflected. One third of all schools use one of the three schemes as back-up material. When main and back-up schemes are included, 'Ladybird' is to be found in 52.52\% of the schools, 'Happy Venture' in $32.32 \%$ and 'Janet and John' in $21.21 \%$. Details of scheme usage frequency are shown in Table 18.
table 18

| Reading Scheme | Date Published | Number of Schools Using as Main Scheme | Percentage of Schools Using as Main Scheme | Number of Schools Using as Second Scheme | Number of Schools Using as Third Scheme | Total Number of Schools Using Scheme | Percentage of Schools Using Scheme |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ladybird | 1964 | 35 | 35.35 | 12 | 5 | 52 | 52.52 |
| Happy Venture | 1939 | 22 | 22.22 | 7 | 3 | 32 | 32.32 |
| Janet and John | 1949 | 15 | 15.15 | 3 | 3 | 21 | 21.21 |
| Through the Rainbow | 1964 | 10 | 10.10 | 1 | 2 | 13 | 13.13 |
| Breakthrough to Literacy (Materials) | 1970 | 4 | 4.04 | 7 | 1 | 12 | 12.12 |
| Dominoes | 1972 | 4 | 4.04 | 4 | 2 | 10 | 10.10 |
| Racing to Read | 1970 | 4 | 4.04 | 4 | 1 | 9 | 9.09 |
| Kathy and Mark | 1970 | 3 | 3.03 | 2 | 1 | 6 | 6.06 |
| Gayway | 1950 | 1 | 1.01 | 3 | 2 | 6 | 6.06 |
| Early to Read | 1962 | 1 | 1.01 | 3 | 0 | 4 | 4.04 |
| Methuen Instant Readers | 1972 | 0 | 0 | 1 | 2 | 3 | 3.03 |
| Language Project | 1974 | 0 | 0 | 1 | 0 | 1 | 1.01 |
| Fallons 'Hopscotch' | 1976 | 0 | 0 | 1 | 0 | 1 | 1.01 |
| Macdonald Starters | 1971 | 0 | 0 | 1 | 0 | 1 | 1.01 |
| Happy Trio | 1956 | 0 | 0 | 1 | 0 | 1 | 1.01 |
| The Star Family | 1975 | 0 | 0 | 0 | 1 | 1 | 1.01 |
| Sparks | 1972 | 0 | 0 | 0 | 1 | 1 | 1.01 |
| Total |  | 99 |  | 51 | 24 | 174 |  |

Just under half of the schools ( $48.48 \%$ ) use one reading scheme only and only $24.24 \%$ of schools reported, use three schemes. (See Table 19). Schemes used alone are, 'Ladybird', 'Happy

Venture', 'Janet and John', 'Ihrough the Rainbow' and 'Breakthrough to Literacy' materials. By far the majority of schools, with only one scheme (forty-three out of forty-eight) use the first three (See Table 20).

There is no pattern of particular schemes being used together but 11. $11 \%$ of the sample schools use a combination of 'Iadybird', 'Happy Venture' and 'Janet and John' as first and second selections and one school uses all three.

## TABLE 19

Numbers of Schemes Used by Schools

| Number of <br> Schemes Used | Number of <br> Schools <br> Using Scheme | Percentage <br> of Schools <br> Using Scheme |
| :---: | :---: | :---: |
| 1 | 48 | 48.48 |
| 2 | 27 | 27.27 |
| 3 | 24 | 24.24 |

TABLE 20
Schemes Used Alone

| Schemes Used <br> Alone | Number of <br> Schools <br> Using Scheme | Percentage <br> of Schools <br> Using Scheme |
| :--- | :---: | :---: |
| Ladybird | 17 | 17.17 |
| Happy Venture | 17 | 17.17 |
| Janet and John | 9 | 9.09 |
| Through the Rainbow | 4 | 4.04 |
| Breakthrough | 1 | 1.01 |
|  | Total | 48 |

## Usage according to locality

School usage according to locality was investigated. Of seventythree rural schools thirty-eight (52.05\%) use one scheme only, while $40 \%$ of the provincial-urban schools and $38.10 \%$ of the urban schools also use a single scheme. Twenty-nine ( $76.32 \%$ ) of the thirty-eight rural schools using one scheme are staffed by four teachers or fewer (Table 21). Children, therefore, who learn to read in a small rural school are most likely to do so through the medium of one scheme. No provincial-urban schools use three schemes and of those who use two series all are staffed by five teachers or more. The highest percentage of schools using three schemes is found in urban areas. The indication is that a child learning to read in an urban school is more likely to have at his disposal a variety of material than a child at beginner stages in either a rural or provincial-urban setting.
TABLE 21


## Usage according to Area Board

No difference in selection of schemes or in the number of schemes used is apparant between controlled, maintained or voluntary schools. There are, however, interesting differences and similarities between Area Boards.

In the Western Education and Library Board area, with the exception of three schools (using'Through the Rainbow') all schools use as a main scheme one of the three generally most used schemes, 'Ladybird,' 'Happy Venture' and 'Janet and John' with the majority using 'Ladybird'. The pattern in the North Eastern Education and Library Board area is very similar to this. Two schools use 'Dominoes, ${ }^{1}$, one uses 'Early to Read', ${ }^{2}$ and all other schools use as a main scheme one of the three already mentioned with $50 \%$ of the sample using 'Ladybird'. In each of these areas $55.56 \%$ of schools use oniy one scheme, the highest percentage for any of the areas.

The majority of schools in the Southern Education and Library Board and the South Eastern Education and Library Board areas also use one of these three schemes as a main scheme but overall a greater variety of choice is shown. While the Western area schools choose from a total of four schemes and the North-Eastern area from a total of five, the Southern and South-Eastern Area school samples both extend usage to six schemes plus the use of 'Breakthrough to Literacy' materials.

Schools under the Belfast Education and Library Board differ from those in other areas in that not one school in the sample uses 'Ladybird' as a first scheme. Only two schools use it at all, one as secondary material and one as a third series. 'Janet and John' is used as a main scheme by only one school but 'Happy Venture'
is the first choice of $37.5 \%$ of schools. Even so, greater variety in the choice of material is shown in Belfast schools. All schools in the sample differ in selection of main scheme and there is considerable diversity in the choice of supporting material. Fifty per cent of Belfast schools use three reading schemes as opposed to $14.8 \%$ using three in the Western Area. The numbers of schemes used by the sample of schools in each of the Area Boards are presented in Table 22.
TABLE 22
Numbers of Schemes Used by Schools in Each Area Board

| Total Number <br> of Schools | Area <br> Board | Number of <br> Schools <br> Using <br> I Scheme | Percentage of <br> Schools Using <br> I Scheme | Number of <br> Schools <br> Using <br> 2 Schemes | Percentage of <br> Schools Using <br> 2 Schemes | Number of <br> Schools <br> Using <br> Schemes | Percentage of <br> Schools Using <br> 3 Schemes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | Western | 15 | 55.56 | 8 | 29.63 | 4 | 14.81 |
| 28 | Southern | 13 | 46.43 | 8 | 28.57 | 7 | 25.00 |
| 18 | N.Eastern | 10 | 55.56 | 5 | 27.78 | 3 | 16.67 |
| 18 | S.Eastern | 8 | 44.45 | 4 | 22.23 | 6 | 33.33 |
| 8 | Belfast | 2 | 25.00 | 2 | 25.00 | 4 | 50.00 |

## Discussion

The results of this present survey are strikingly similar to those of a study undertaken by The Northern Ireland Council for Educational Research ten years ago. ${ }^{3}$ Then $42 \%$ of teachers were using 'Happy Venture', $34 \%$ were using 'Janet and John' and five per cent were using 'Ladybird'. No figures were given for the numbers of schools using a particular series. Although the sampling procedure was statistically representative of the population, (Aten per cent random sample was selected from each of four population strata, each stratum representing school size. One hundred and one schools out of one hundred and thirty-five returned questionnaires, representing a $78 \%$ response) some schools must have been represented twice or even three times in the results as two hundred and forty-two teachers, ranging from reception to primary three classes returned information on reading scheme in use. It is acknowledged that different teachers in the same school may use different reading schemes but it is highly unlikely that the scheme used in Primary I will not be continued right through to the end of Primary III. No separate details were given of the responses of the one hundred and thirty-six Reception class and Primary I class teachers who taught primary one children either as a unit or with other classes and this makes comparison with the present study difficult.

Nevertheless the three schemes used then are still those most used today even though the popularity indices differ. A possible explanation for this difference could be that in the N.I.C.E.R. study the findings were based on teacher response while in the present study they are based on school response. As no figures are given by N.I.C.E.R. for the number of schools using a scheme
it is impossible to say whether more or less schools are now teaching reading through the use of these schemes.

In answer to the N.I.C.E.R. question 'Are you satisfied with the series?' the reply was given in the affirmative by $71 \%$ of teachers while $43 \%$ of teachers claimed the named scheme had been in use from ten to eighteen years. Teacher conservatism and adherence to school tradition may be two reasons for the small change that has taken place over the years in the choice of reading material.

Although the reading series chosen by the majority seems for the most part to have remained the same over the past ten years schools today are using a wider variety than in 2970. Then only three other schemes were mentioned, contrasting with the present study, which shows main series usage covering a range of ten schemes extending to seventeen if second and third selections are taken into account. Teachers today can choose from a much greater variety. Of the seventeen schemes mentioned only nine were published in 1970 or later. Today's proliferation of reading material has not influenced selection as much as might have been expected.

These results resemble very closely the Labon (1977) findings following a survey of one hundred and ninety-one Southern England County Schools. ${ }^{4}$ There, the top four schemes, in order of usage, were: 'Ladybird', 'Through the Rainbow', 'Janet and John' and 'Breakthrough to Literacy'. The complete table is reproduced in Appendix K.

The main difference between the Northern Ireland schools and the Finglish sample is the use of 'Happy Venture', otherwise they are remarkably alike. According to Labon (1977) 'Happy Venture' is
declining in favour in England and now rates seventh place. It would be of interest to know why this scheme, second most used ten years ago in Midland city and Home Counties schools (Goodacre 1969) ${ }^{5}$ is still second in use in Northern Ireland today. (Appendix L).

## Breakthrough To Literacy

## Overall usage

The range of schemes used by the sample schools includes just two which are language based. They are, "The Language Project' ${ }^{6}$ and 'Breakthrough to Literacy' which, strictly speaking, is not really a scheme but a set of materials. The 'Language Project' is used by one school as support material. Overall $12.12 \%$ of schools use 'Breakthrough to Literacy', $4.04 \%$ of schools using the materials as the main medium through which beginners are taught to read.

A large rural school is the only school which teaches beginners to read through the use of 'Breakthrough' materials alone. When 'Breakthrough' is used with another series $33.33 \%$ of schools choose 'Ladybird'. A reason generally given by teachers for not using these materials, even if the underpinning theory is accepted, is the problem of organizing the use and storage of the equipment especially when dealing with average or over-average sized classes. The results of the survey indicate that size of school has little to do with reasons for adopting the method; $41.67 \%$ of schools using 'Breakthrough' are small rural schools and $58.33 \%$ are large urban schools.

As far as a language experience approach to the teaching of reading is concerned the maintained schools seem to be more innovative than the controlled schools. Sixty-six point six per cent of schools using 'Breakthrough' are maintained schools.

## Usage according to Area Board

The pattern of use in the different areas follows the same pattern for reading schemes. The Western Education and Iibrary Board and the North Eastern Education and Iibrary Board each have one school in the sample using the materials representing $3.7 \%$ and $5.56 \%$ of schools respectively. In the Southern and South Eastern Areas 10.71\% and $16.67 \%$ of sample schools use 'Breakthrough' but as before greater innovation is evident in the schools of the Belfast Area where $50 \%$ of the sample use 'Breakthrough!. Figures on 'Breakthrough' usage given by the N.I.C.E.R. study 'Curriculum Projects in Primary Schools'7 carried out in 1979 support these findings by showing practically the same pattern across Areas. This study was not concerned with 'Breakthrough' usage as a main scheme but classified schools according to the reply to the question 'Are you making any use of 'Breakthrough' materials?'

Sixteen per cent of schools in the Belfast Area were making 'extensive' use of these materials as compared with $14 \%$ of schools in the South Eastern Board, $13 \%$ in the North Fastern Board, 8\% in the Southern Board and only 7\% in the Western Board.

Differences in proportions of schools adopting 'Breakthrough' reported in the current study and the N.I.C.E.R. survey may be explained by differences in procedure, sample size and survey dates. Nevertheless it is notable that similar trends were found in both studies. 'Breakthrough' materials had been adopted by the highest proportion of schools in Belfast and by the lowest proportion in the Western area.

## Discussion

The Labon survey presents an interesting comparison with this Northern Ireland study. The use of 'Breakthrough' materials as a main scheme, fifth in preference for Northern Ireland teachers is fourth in preference for Southern England teachers. The similarity becomes more notable when one considers that $6.28 \%$ of English schools, as against $4.04 \%$ of Northern Ireland schools use the materials.

For those who question the effectiveness of the use of published reading schemes for teaching beginners to read, a very encouraging trend in both the present and the Labon investigation is this moving up the popularity scale of 'Breakthrough to Literacy'. However, a greater percentage of the English sample schools make some use of the materials, ( $40.31 \%$ ) as opposed to $12.12 \%$ in Northern Ireland.
'Breakthrough to Literacy' seems to have been adopted mainly by the Belfast Area schools. A number of in-service courses have been conducted on the project throughout Northern Ireland so if the provision of courses alone ensured implementation then the pattern should be the same across the Province. But a back-up system is fundamental if innovation is to be institutionalized. The Belfast Area provides this service through Colleges of Education, Teachers' Centres and Advisers.

Reading Scheme Usage in Northern Ireland Preparatory Schools

The drawn sample of six preparatory schools returned data on reading schemes used. Two thirds of these schools use only one scheme for teaching reading. As in primary schools, 'Ladybird', used by 50\%' of the sample as an only scheme, is the most used main scheme. This $50 \%$ consists of one-sex schools. The other schemes used are Happy Venture' coming next in popularity, followed by 'Janet and John'.

While two schemes are used by $16.67 \%$ of schools and three schemes are used also by $16.67 \%$ of schools, the only scheme used apart from the three mentioned is "The Star Family". This scheme is used as third selection in one school.

When taking into account the three most popular schemes, preparatory school usage replicates primary school usage. But more preparatory than primary schools rely on one series. A notable finding is the lack of variety of material in preparatory departments.

In summary materials used to teach beginner readers in Northern Ireland are, in order of usage, those first published in 1964, 1939 and 1949. Many lists of criteria have been compiled as a guide to the selection of such materials (Olsen 1968)9 but one which should always be applied is the question of validity. Material which is valid must surely embody the results of up to date research. Much research in the field of reading was carried out in the 1960s both in this country and in America and the volume has gradually increased since then. A scheme published in 1964 ('Ladybird') could not have taken cognizance of important findings during this period and the validity of such a scheme is clearly open to question. The publication dates for 'Happy Venture', 1939 and 'Janet and John', 1949 require no comment, they speak for themselves. A point made earlier, but worth restating in this context, is that although reading schemes are updated from time to time this is rarely undertaken from a sound pedagogical standpoint.

The three schemes most used in the sample schools account for 72.72 per cent of school usage. Of these 'Ladybird' and 'Janet and John' approximate on theme content. They both portray the comfortable middle class background up to 'Ladybird, $3 a$ ' and ' $3 b$ ' and 'Janet and John' - 'Out and About'. Both deal with everyday episodes and close environment experiences. Included in both are dogs, cats, fish, gardens, shops, cars, boats and trains. Neither series up to the third book has a real story line but consists of a series of incidents which, if related to particular individual children reading the material might be of some interest. But it is difficult to justify trying to interest the majority of children,
conversant with space travel and science fiction, in a series of incidents, often dull, written around the cardboard figures of Jane and Peter, Janet and John.

The same stereotype middle class children, this time named Dick and Dora, are the main characters in the 'Happy Venture' books. The introductory and first two books follow roughly the same content as those mentioned above. Again there are the cat, the dog, mother, the doll, a shop and children who run, hop, jump and skip. In Book II 'Our Friends' some attempt is made to introduce fantasy in the shape of the 'White Horse and Rabbit' and 'The Two Bad Pigs' stories, but the story line is very weak.

These beginner reading books shown to be in common use in Northern Ireland schools depend therefore almost entirely on close environment themes. They rarely include fantasy, adventure, violence or even animal stories.

Does the content of these books relate to the theme preference shown by pupils?

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## Introduction

This chapter presents the results of the children's choice of picture themes and illustrations. It is divided into three parts. Part I outlines the pattern of choice by selection of pictures. The prediction of children's choice of theme is described in Part II and Part III presents the pattern of choice of themes by illustration.

PART I

## PATTERN OF CHOICE OF THEME BY SELECTION OF PICTURES

## Overall selection

The overall first selection of the total sample was Picture II (Home Environment) but the first selection of the majority of girls made the major contribution to this category. Picture VI (War and Fighting) was the overall first selection of the majority of boys. Details of the frequency of first selections are shown in Figure 2. In the case of the least popular picture for each of the sexes, the position is found to be exactly the opposite of the situation described above. Boys assigned Picture II (Home Environment) to last place and the girls did likewise with Picture VI (War and Fighting). (See Figure 3).

Fig. 2 DISTRIBUTION OF FIRST SELECTIONS FOR EACH PICTURE: BOYS.GIRLS.


Fig. 3 DISTRIBUTION OF REMAINING PICTURE AFTER FIVE SELECTIONS: BOYS,GIRLS.


## Analysis

Chi-square analysis of picture selections first to sixth was carried out for boys and girls separately. First selection was controlled for in order to observe the pattern of selections, first, second and third. Tables 23 and 25 show the pattern of selection for boys and girls respectively. Only second and third selections made by more than nine per cent of those choosing any one picture as their first selection were included.

Pattern of selection: boys

TABLE 23
Boys: Pattern of Picture Selections, First to Third

| Number of Boys | Selections |  |  | Percentage of Boys |
| :---: | :---: | :---: | :---: | :---: |
|  | First | Second | Third |  |
| 93 | Picture 1 | 3 3 6 | $\begin{aligned} & 4 \\ & 6 \\ & 4 \end{aligned}$ | $\begin{aligned} & 17.2 \\ & 15.1 \\ & 12.9 \end{aligned}$ |
| 18 | Picture 2 | $\begin{aligned} & 6 \\ & 3 \\ & 1 \\ & 6 \end{aligned}$ | $\begin{aligned} & 3 \\ & 6 \\ & 5 \\ & 1 \end{aligned}$ | $\begin{aligned} & 16.7 \\ & 16.7 \\ & 11.1 \\ & 11.1 \end{aligned}$ |
| 102 | Picture 3 | 6 4 4 4 | $\begin{aligned} & 4 \\ & 1 \\ & 5 \\ & 6 \end{aligned}$ | $\begin{array}{r} 16.7 \\ 11.8 \\ 10.8 \\ 9.8 \end{array}$ |
| 69 | Picture 4 | $\begin{aligned} & 6 \\ & 6 \\ & 1 \\ & 3 \end{aligned}$ | $\begin{aligned} & 1 \\ & 3 \\ & 6 \\ & 1 \end{aligned}$ | $\begin{aligned} & 13.0 \\ & 11.6 \\ & 10.0 \\ & 10.0 \end{aligned}$ |
| 32 | Picture 5 | $\begin{aligned} & 4 \\ & 3 \\ & 4 \\ & 1 \\ & 1 \\ & 6 \\ & 3 \\ & 4 \end{aligned}$ | $\begin{aligned} & 3 \\ & 1 \\ & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 6 \\ & 6 \end{aligned}$ | $\begin{array}{r} 15.6 \\ 9.4 \\ 9.4 \\ 9.4 \\ 9.4 \\ 9.4 \\ 9.4 \\ 9.4 \end{array}$ |
| 119 | Picture 6 | $\begin{aligned} & 4 \\ & 3 \\ & 4 \\ & 1 \end{aligned}$ | 3 4 1 4 | $\begin{array}{r} 14.3 \\ 12.6 \\ 11.8 \\ 9.2 \end{array}$ |

Figures presented in Table 23 show that the pictures selected together by boys were Pictures I, III, IV and VI. Uith the most popular first choice of boys (Picture VI) Pictures III and IV were mainly selected as either second or third choice. The next most popular picture was Picture III and Pictures IV and VI were
mainly selected with it as second and third choice.

Picture I was the third most popular picture and with it were selected as second or third choice Pictures III, IV or VI in equal numbers.

Of note is the lack of interest shown by boys in Picture II. From the figures presented in Table 24 it can be seen that only small percentages selected it as either first, second or third choice.

TABLE 24
Boys: Selection of Picture II

| Boys | Selections Picture II |  |  |  |
| :--- | ---: | :---: | :---: | :---: |
|  | First | Second | Third | Total |
| Number of Boys | 18 | 23 | 32 | 73 |
| Percentage of Boys | 4.16 | 5.31 | 7.39 | 16.86 |

## Pattern of selection: girls

TABLE 25
Girls: Pattern of Picture Selections, First to Third

| Number of Girls | Selections |  |  | Percentage of Girls |
| :---: | :---: | :---: | :---: | :---: |
|  | First | Second | Third |  |
| 61 | Picture 1 | 5 2 2 | $\begin{aligned} & 2 \\ & 5 \\ & 3 \end{aligned}$ | $\begin{array}{r} 13.1 \\ 16.4 \\ 9.8 \end{array}$ |
| 240 | Picture 2 | $\begin{aligned} & 1 \\ & 5 \end{aligned}$ | $\begin{aligned} & 5 \\ & 1 \end{aligned}$ | $\begin{aligned} & 15.4 \\ & 11.7 \end{aligned}$ |
| 41 | Picture 3 | 2 5 2 2 | $\begin{aligned} & 1 \\ & 2 \\ & 5 \\ & 6 \end{aligned}$ | $\begin{array}{r} 17.1 \\ 12.2 \\ 9.8 \\ 9.8 \end{array}$ |
| 26 | Picture 4 | $\begin{aligned} & 2 \\ & 5 \\ & 1 \end{aligned}$ | $\begin{aligned} & 3 \\ & 2 \\ & 5 \end{aligned}$ | $\begin{aligned} & 15.4 \\ & 11.5 \\ & 11.5 \end{aligned}$ |
| 62 | Picture 5 | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1 \\ & 6 \\ & 3 \\ & 4 \end{aligned}$ | $\begin{array}{r} 21.0 \\ 14.5 \\ 12.9 \\ 9.7 \end{array}$ |
| 36 | Picture 6 | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 5 \end{aligned}$ | $\begin{aligned} & 4 \\ & 1 \\ & 5 \\ & 2 \end{aligned}$ | $\begin{aligned} & 13.9 \\ & 11.1 \\ & 13.9 \\ & 11.1 \end{aligned}$ |

In contrast with boys' selection, pictures selected together by girls were Pictures II, V and I. The most popular picture for girls was Picture II. Pictures I and V were selected with it as either second or third choice. Picture $V$ was next in popularity. Picture II was a consistent second choice to Picture V with a variety of pictures selected as third choice. Third in popularity
was Picture $I$ and with it Pictures II or $V$ were selected as second or third choice. Picture VI was of little interest to girls even as second or third choice as figures in Table 26 demonstrate.

TABLE 26
Girls: Selection of Picture VI

| Girls | Selections Picture VI |  |  |
| :--- | :---: | :---: | :---: |
|  | First | Second | Third |
| Number of Girls | 36 | 39 | 73 |
| Percentage of Girls | 7.7 | 8.4 | 15.7 |

Out of a total of 433 boys only five grouped Pictures I, II and V together, a typicai grouping by girls. Pictures III, IV and VI were those grouped together by boys and just three girls out of a sample of 466 grouped these pictures together.

The highest percentage, $27.5 \%$ of all first selections of boys went to Picture VI (War and Fighting). The highest percentage of all second selections, $26.8 \%$ went to Picture IV (Firemen) and the highest percentage of all third selections $25.9 \%$ went also to Picture IV. (Table 27).

Considering girls, the highest percentage of all first selections, 51. $5 \%$ went to Picture II (Home Environment). The highest percentage of all second selections, $23.8 \%$, went to Picture V (Animals) and the highest percentage of all third selections, $22.1 \%$, went also to Picture V. (Table 27).

## TABLE 27

The Highest Percentage of All First, All Second and All Third Selections of Boys and Girls, Related to the Picture Test.

| Selection | Boys |  | Girls |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Picture | Percentage | Picture | Percentage |
| All First | VI | 27.5 | II | 51.5 |
| All Second | IV | 26.8 | V | 23.8 |
| All Third | IV | 25.9 | V | 22.1 |

## PREDICTION OF THEMATIC PICTURE CHOICE

## Introduction

The rationale for the selection of themes for the picture test has already been described in Chapter III 'Development of the Instrument' but in no sense is it suggested that the pictures are related in such a way as to represent any unified scale. It is preferable to regard each picture as an entity which is possibly, but not demonstrably, related to the others. The child may be regarded as ranking each picture on a six point scale. Another possible interpretation might be that the child is in effect assigning himself a score on each of the six pictures. In these terms it is suggested that each picture constitutes a variable at an ordinal level of measurement.

## Analyses

With approximately 54,000 data it became obvious that the main problem was how to present the results of the picture test without resorting to extensive or redundant tabulation. Step-wise regression analysis was chosen as the most suitable solution to this problem. Through this method of analysis, variables indicative of the most important differences in group means for the sample could be extracted.

For the analysis of ranking for each of the six pictures eleven independent variables were listed. These comprised sex of pupil, age at testing, religion of pupil, social class, location of
school, school type, school size, school sex, illustrated theme, reading scheme and Area Board. Although a range of eight reading schemes and 'Breakthrough to Iiteracy' materials were used across the sampled schools only the five most used were included for analysis. They were 'Ladybird', 'Happy Venture', 'Janet and John', 'Through the Rainbow' and 'Breakthrough to Literacy'. Dummy variable coding (1/0) was used for location of school, illustrated theme, major reading schemes and Area Board as suggested by Bottenberg and Ward $(1963)^{1}$ and Cohen $(1968)^{2}$. The dependent variables consisted of subject's ranking of each picture.

An exploratory model was used as there was no logical basis on which to hypothesize a hierarchy of simple effects. Accordingly the variables were made available for unordered step-wise regression on the basis of maximally increasing assigned variation at each successive step. When entry of a further variable did not increase assigned variation by an amount significant at the .05 level the sequence was stopped. Redundant prediction, was, in this way, removed from the regression equation.

All analyses were carried out using the statistics package for the social sciences. (Nie et al, 1970) ${ }^{3}$

Regression analyses: boys and girls

TABLE 28
Boys and Girls: Assigned Variation in Ranking of Pictures I to VI

| Picture | Assigned Variables | Cumulative Step-wise Increase | $\underset{\text { ratio }}{F}$ | d.f. | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I | Illustration (Theme I) | 1.50 | 12.76 | 1,825 | xxxx |
|  | Area Board | 3.02 | 13.18 | 1,825 | $x \times$ |
|  | Reader (Ladybird) | 3.49 | 4.10 | 1,825 | x |
|  | Total assigned variation | 3.49 | 10.10 | 3,825 |  |
| II | Sex | 50.78 | 867.67 | 1,821 | xxxx |
|  | Social Class | 51.13 | 5.97 | 1,821 | x |
|  | School Sex | 51.46 | 5.70 | 1,821 | x |
|  | Total assigned variation | 51.46 | 296.46 | 3,821 | $8 \times x$ |
| III | Sex | 8.29 | 76.00 | 1,820 | x00x |
|  | School Size | 9.08 | 7.32 | 1,820 | xx |
|  | Total assigned variation | 9.08 | 41.95 | 2,820 | ${ }_{8 \times 8} \times$ |
| IV | Sex | 12.75 | 122.92 | 1,825 | xxxx |
|  | Reader (Janet and John) | 13.46 | 6.82 | 1,825 | , |
|  | Total assigned variation | 13.46 | 65.30 | 2,825 | x $x^{\prime \prime}$ x |
| V | Sex | 4.98 | 44.10 | 1,819 | 2xax |
|  | Illustration (Theme I) | 5.67 | 6.15 | 1,819 | xx |
|  | School Type | 6.14 | 4.12 | 1,819 | X |
|  | Total assigned variation | 6.14 | 18.28 | 3,819 | ${ }_{8 \times 8} \times$ |
| VI | Sex | 16.82 | 170.11 | 1,820 | $8 \times 8$ |
|  | Reader (Happy Venture) | 17.39 | 5.72 | 1,820 | x |
|  | Total assigned variation | 17.39 | 88.40 | 2,820 | $8 \times 8 \times$ |

$x: p<.05 ; ~ x x: ~ p<.01 ; ~ x x x: ~ p<.001 ; ~ x x x: ~ p<.0001$

The order of entry of the variables in the overall regression analysis equation, with cumulative step-wise increase in assigned variation is presented in Table 28. The sex variable entered first into step-wise regression for Pictures II to VI inclusive, and was seen to make a highly significant contribution to each of these pictures. The illustrated theme variable made a highly significant contribution to Picture $I$ and a less strong contribution to Picture V. Because of the nature of the illustrated theme variable it was removed from the regression analysis in order to discover if other variables would emerge but it was found that its removal did not affect results and so the decision was taken to include it in all analyses. The reading scheme variable made a significant contribution to Pictures $I, ~ I V$ and VI with the strongest contribution to Picture IV. Area Board emerged as a highly significant predictor for Picture I but for no other picture. School size was a significant predictor for Picture III alone. Social class and school sex were predictors for Picture II but for no other picture. School type contributed to the variance for Picture V. Variables which did not enter into the regression at all were age and religion of pupil and locality of school.

An interesting result of the analyses was the high percentage of explained variance assigned to Picture II (51.46\%) in comparison to other pictures. The picture coming next was Picture VI with a total assigned variation of $17.39 \%$, while explained variation for Picture I was only $3.49 \%$. It is notable that fifty per cent of variance in Picture II was explained by the sex variable. Also worthy of comment is the entering of the two variables, sex and reader, in that order, accounting for a significant proportion of
explained variation in both Pictures IV and VI.

In summary variables which made the strongest contribution to assigned variation were pupil, not school variables.

## Analyses of variance: by sex

Because overall regression analysis showed that sex was the most important predictor for ranking of scores for Pictures II to VI the mean ranks for boysand girls were examined and a series of one-way analyses of variance carried out to further investigate these findings. Means are represented graphically in Figure 4.

By-sex differences in the mean scores for the ranking of Pictures II to VI inclusive, when tested by a one-way analysis of variance, were highly significant ( $p<.00001$ ). Large differences in means were noted in scores for Pictures II to VI. Boys ranked Picture II, 5.07 (the lowest) and girls ranked it 2.07 (the highest). Picture VI was given a mean rank of 2.87 (the highest) by boys and 4.23 (the lowest) by girls. Picture I was the exception. For this picture there was only a slight non-significant difference in mean ranking scores of boys and girls.

It is interesting to note that when boys' mean scores for the pictures are ordered the pattern of ranking, beginning with the most popular picture and ending with the least popular, is Picture VI, IV, III, I, V and II. When girls' mean scores are likewise ordered the pattern of ranking is Picture II, V, I, III, IV and VI, the exact opposite. (Figure 5).

Fig 4
MEAN RANKING OF PICTURES BY SEX.
Highest rank 1

Lowest rank6

xxxxx: p < . 00001 ; df 1.897

Fig. 5

BOYS, GIRLS: | PATTERN OF |
| :--- |
| MEAN RANKING SCORES FOR |
| PICTURES I to VI |



PICTURES

Because the initial analyses revealed the overwhelming importance of sex of pupil in relation to the ranking of five of the six pictures further analyses were carried out for boys and girls independently.

Regression analyses: boys
TABIE 29
Boys: Assigned Variation in Ranking of Pictures I to VI

| Picture | Assigned variables | Cumulative Step-wise Increase | $\begin{gathered} F \\ \text { ratio } \end{gathered}$ | Q.f. | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $I$ | Illustration (Theme I) | 2.70 | 11.18 | 1,401 | 8 x |
|  | Total assigned variation | 2.70 | 11.18 | 1,401 | xxx |
| $I I$ | Social Class | 2.81 | 11.69 | 1,401 | xxx |
|  | Age | 3.82 | 4.21 | 1,401 | x |
|  | Total assigned variation | 3.82 | 8.00 | 2,401 | $x \times x$ |
| III | School Size | 1.86 | 7.64 | 1,399 | Xx |
|  | Illustration | 3.19 | 5.50 | 1,399 | x |
|  | Reader (Through the Rainbow) | 4.24 | 4.40 | 1,399 | x |
|  | Total assigned variation | 4.24 | 5.91 | 3,399 | xXX |
| IV |  | N.S. |  |  |  |
| V | Illustration (Theme II) | 1.65 | 6.75 | 1,399 | x $x$ |
|  | Total assigned variation | 1.65 | 6.75 | 1,399 | xx |
| VI | Reader (Through the Rainbow) | 1.25 | 5.09 | 1,398 | x |
|  | Illustration (Theme II) | 2.83 | 6.58 | 1,398 | xx |
|  | School Size | 4.00 | 4.84 | 1,398 | x |
|  | Illustration (Theme V) | 5.20 | 5.09 | 1,398 | X |
|  | Total assigned variation | 5.20 | 5.49 | 4,398 | xxxx |

$x: p<05 ; x x: p<.01 ; \quad x \times x: p<.001 ; x \times x x: p<.0001$

When regression analyses were carried out on boys' ranking of each picture five of the variables entered the equation. Table 29 shows the order of entry of significant variables for each picture with the step-wise increases in assigned variation. Strongest predictors were illustrated theme for Picture I and social class for Picture II and these were seen to be highly significant. Illustrated theme made the only contribution to Picture V and a weaker contribution to Pictures III and VI. The reading scheme variable, 'Through the Rainbow' made the strongest contribution to Picture VI and emerged also for Picture III. School size, the most important predictor for Picture III also contributed to Picture VI. Age entered for Picture II only. It is notable that although at least one significant predictor was found for five of the six pictures the total assigned variation explained by predictors was less than five per cent of the total variance for all but Picture VI. For this picture four variables explained only 5.2 per cent of total variance.

## Analyses of variance: boys

Significant variables from regression analysis for boys were illustrated theme, reading scheme, social class, school size and age of pupil. These, together with Area Board, school sex and school type, significant variables which emerged from the overall regression analysis, were included in a series of one-way analyses of variance on the ranking of the six pictures by boys. It should be noted at this point that the number of boys included in the analyses of variance varied but in each case the number is greater than in the regression analyses. Missing data from a number of variables were compounded in the regression analyses so that there were only 403 boys from a total sample of 433 for whom all data were available. Similar differences occurred with the regression analyses for girls.

No significant differences appeared in mean scores for the ranking of the pictures by age, school sex, school type, reading scheme or Area Board. (See Appendix M).

As Figure 6 illustrates significant social class differences emerged in mean scores for the ranking of Fictures $I$ and II. The greatest difference was observed between mean ranking scores for Picture II with boys in social classes I and II assigning the higher score. Social class III, IV and $V$ boys had a higher mean score for Picture I though the difference here was not as marked as for Picture II.

Significant mean score differences also existed for the ranking of Pictures III and VI by school size. Figure 7 shows that boys from smaller schools had a higher mean score, 2.76 on Picture III

Fig. 6

## BOYS: MEAN RANKING OF PICTURES BY SOCIAL CLASS



Fig 7
BOYS: MEAN RANKING OF PICTURES BY SCHOOL SIZE

than boys from larger schools and boys from larger schools had a higher mean score on Picture VI than boys from smaller schools.

## TABLE 30

Boys: Mean Ranking of Pictures by Illustrated Theme

| Illustrated Theme | Pictures |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PI | PII | PIII | PIV | PV | PVI |
| I | 2.67 | 4.88 | 3.34 | 3.19 | 4.12 | 2.80 |
| II | 3.37 | 4.98 | 3.02 | 2.95 | 3.54 | 3.14 |
| III | 3.20 | 5.15 | 3.09 | 2.84 | 4.01 | 2.71 |
| IV | 3.57 | 4.91 | 2.77 | 2.98 | 3.80 | 2.93 |
| v | 3.17 | 5.05 | 2.90 | 2.98 | 3.63 | 3.27 |
| VI | 3.57 | 5.46 | 2.57 | 2.81 | 4.17 | 2.14 |
| Mean | 3.22 | 5.05 | 3.00 | 2.97 | 3.90 | 2.86 |
| Sig. | xx | N.S. | N.S. | N.s. | x | N.S. |
| $\mathrm{xx}: \mathrm{p}<.01 ; \mathrm{F}$-ratio $=3.28$; d.f. $=5.39$ |  |  |  |  |  |  |
| $\mathrm{x}: \mathrm{p}<.05 ; \mathrm{F}$-ratio $=2.37$; d.f. $=5.39$ |  |  |  |  |  |  |

Table 30 sets out the mean scores for ranking of pictures by illustrated theme and shows that scores differed significantly for Pictures I and V. Boys who illustrated Theme I gave for Picture I the highest mean ranking score (2.67). Boys who illustrated Theme VI gave the lowest mean ranking score (3.57) for Picture I. Picture V was assigned the highest mean rank (3.54) by boys who illustrated Theme II and the lowest mean rank (4.17) by those boys who illustrated Theme VI.

In summary, a small but significant percentage of variance in five of the six pictures was explained by predictor variables. Social class was an important predictor for Picture II and school size an important predictor for Pictures III and VI. However the major predictor for boys was illustrated theme.

Regression analyses: girls

TABLE 31
Girls: Assigned Variation in Ranking of Pictures I to VI

| Picture | Assigned Variables | Cumulative Step-wise Increase | $\underset{\text { ratio }}{F}$ |  | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I | Reader (Breakthrough) | 1.42 | 6.30 | 1,433 | xx |
|  | School Sex | 2.77 | 6.02 | 1,433 |  |
|  | Illustration (ThemeI) | 3.84 | 4.83 | 1,433 |  |
|  | Total assigned variation | 3.84 | 5.78 | 3,433 | $x$ |
| II | School Sex | 1.79 | 7.96 | 1,435 | $x \times$ |
|  | Total assigned variation | 1.79 | 7.96 | 1,435 | xx |
| III |  | N.S. |  |  |  |
| IV | Reader (Janet and John) | 2.98 | 13.41 | 1,433 | xxxx |
|  | Locality of school | 4.36 | 6.27 | 1,433 | x x |
|  | Total assigned variation | 4.36 | 9.92 | 2,433 | xxxx |
| V | Locality of school | 1.97 | 8.75 | 1,429 | xx |
|  | Illustration (Theme III) | 3.27 | 5.87 | 1,429 | x |
|  | Total assigned variation | 3.27 | 7.36 | 2,429 | xxx |
| VI | Reader (Ladybird) | 1.49 | 6.59 | 1,433 | xx |
|  | Illustration (Theme IV) | 2.40 | 4.08 | 1,433 | x |
|  | Total assigned variation | 2.40 | 5.36 | 2,433 | 8 x |

$\mathrm{x}: \mathrm{p}<.05$; $\mathrm{xx}: \mathrm{p}<.01$; $\mathrm{xxx}: \mathrm{p}<.001$; $\mathrm{xxxx}: \mathrm{p}<.0001$

When regression analyses were carried out on girls' ranking of each picture four of the ten variables entered into the regression equations. The order of entry of significant variables for each picture, with step-wise increases in assigned variation is presented in Table 31.

The reading scheme variable made a highly significant contribution to Picture IV and a less strong but still significant contribution to Pictures I and VI. Locality of school, the strongest predictor for Picture V also made a contribution to Picture IV. The only significant predictor for Picture II was school sex, a variable which also contributed to the variance on Picture I. Illustrated theme was associated with Picture I, V and VI making a weaker contribution than other variables which were predictors for these pictures. Overall the predictors explained less than five per cent of variance in any of the pictures.

## Analyses of variance: girls

Included in a one-way analysis of variance on the ranking of pictures by girls, were the significant variables which emerged from regression analysis on girls' scores. These were, reader, locality, illustrated theme and school sex. Also included were social class, school size, school type and Area Board, the remaining variables which made a significant contribution to variance in the overall regression analyses.

No significant differences were found in the mean ranking scores for Pictures I to VI by the variables social class and size of school. (See Appendix N).

TABLE 32
Girls: Mean Ranking of Pictures by Area Board

| Area Board | PI | PII | PIII | PIV | PV | PVI |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3.39 | 1.93 | 3.93 | 4.07 | 3.49 | 4.16 |
| Southern | 3.91 | 1.98 | 3.95 | 4.04 | 3.04 | 4.06 |
| N. Eastern | 3.17 | 1.90 | 4.33 | 4.10 | 3.30 | 4.19 |
| S. Eastern | 3.32 | 2.08 | 4.03 | 4.06 | 3.20 | 4.28 |
| Belfast | 2.46 | 2.88 | 3.94 | 3.80 | 3.28 | 4.64 |
| Mean | 3.39 | 2.08 | 4.02 | 4.03 | 3.24 | 4.22 |
| Sig. |  |  |  | N.S. | N.S. | N.S. |
|  |  |  |  |  |  |  |

$\begin{array}{rll}\text { xxxx: } p<.00001 ; & \text { F-ratio }=8.67 ; & \text { d.f. }=4.45 \\ \text { xxx: } p<.001 ; & F-r a t i o=4.51 ; & \text { d.f. }=4.45\end{array}$

As illustrated in Table 32 by-Area Board differences in mean scores on ranking of pictures emerged for Pictures I and II significant at $p<.00001$ and $p<.001$ levels respectively. Girls in the Belfast Area gave Picture I a mean score of 2.46, a higher score than girls from any other Area. The same girls mean score for Picture II was 2.88, a lower score than that assigned by any other Area. It should be noted here that although none of the Area Board variables featured in the girls' regression analyses Area Board was an important predictor of variance in ranking pictures overall. For girls 'Breakthrough to Literacy' and school sex were the most important predictors for Picture I while school sex was the only significant predictor for Picture II. This suggests that observed difference in ranking between Area Boards
could partly be explained by Area Board differences in availability of readers and distribution of single-sex schools.

TABLE 33
Girls: Mean Ranking of Pictures by Locality

| Locality | PI | PII | PIII | PIV | PV | PVI |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Urban | 3.15 | 2.25 | 4.18 | 3.93 | 3.19 | 4.29 |
| Provincial-urban | 3.28 | 1.72 | 4.20 | 3.68 | 4.16 | 3.96 |
| Rural | 3.52 | 2.01 | 3.91 | 4.10 | 3.21 | 4.21 |
| Mean | 3.39 | 2.07 | 4.01 | 4.02 | 3.26 | 4.23 |
| Sig. | N.S. | N.S. | N.S. | N.S. | IX | N.S. |

xx: $\mathrm{p}<.01 ;$ F-ratio $=4.47$; d.f. $=2.46$

Table 33 shows a significant difference in mean scores on ranking of pictures by locality for Picture V. Provincial-urban girls rated it much lower than any other picture with a mean score of 4.16 .

Significant school sex differences were found in rankings for Pictures I, II and III as illustrated in Figure 8. Girls in single-sex schools assigned Pictures I and III higher mean ranks than girls in mixed-sex schools, whereas girls in mixed-sex schools assigned Picture II a higher mean rank than those in single-sex schools.

Fig. 8

## GIRLS: MEAN RANKING OF PICTURES BY SCHOOL SEX



TABLE 34
Girls: Mean Ranking of Pictures by Illustrated Theme

| IIIustrated <br> Theme | PI | PII | PIII | PIV | PV | PVI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 3.13 | 2.16 | 3.96 | 4.08 | 3.51 |
|  | I | 3.16 |  |  |  |  |
| II | 3.53 | 1.97 | 3.98 | 4.03 | 3.29 | 4.19 |
| III | 3.47 | 2.23 | 4.40 | 3.87 | 2.67 | 4.30 |
| IV | 3.11 | 2.04 | 4.32 | 3.75 | 2.86 | 4.82 |
| V | 3.64 | 2.19 | 3.70 | 4.15 | 3.04 | 4.28 |
| VI | 3.83 | 2.33 | 4.00 | 3.67 | 4.17 | 3.00 |
| Mean | 3.40 | 2.08 | 4.00 | 4.02 | 3.27 | 4.22 |
| Sig. | N.S. | N.S. | N.S. | N.S. | $\times$ | N.S. |
|  |  |  |  |  |  |  |

$x: p<.05 ;$ F-ratio $=2.50 ;$ d.f. $=5.42$

Mean scores on ranking of pictures by illustrated theme also differed significantly for Picture V. Table 34 shows that girls who illustrated Theme III ranked Picture V highest and those who illustrated Theme VI ranked Picture V lowest.

Table 35 displays the significant differences in mean scores for the ranking of Pictures I and IV by reading scheme in use. Girls using 'Breakthrough to Literacy' materials gave Picture I a mean ranking of 2.50 , the highest score, while those using 'Racing to Read' gave it the lowest score, a mean ranking of 4.00 . Those who ranked Picture IV lowest, 4.45, were using 'Breakthrough' materials and those who ranked this picture highest (3.46) were using 'Janet and John'.

TABLE 35
Girls: Mean Ranking of Pictures by Reading Scheme in Use

| Reader | PII | PIII | PIV | PV | PVI |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PI | PII | PII |  |  |  |
| Ladybird | 3.57 | 2.04 | 3.97 | 4.10 | 3.31 | 4.00 |
| Janet and John | 3.52 | 2.38 | 3.95 | 3.46 | 3.29 | 4.32 |
| Happy Venture | 3.22 | 2.01 | 4.03 | 4.04 | 3.17 | 4.52 |
| Through the Rainbow | 3.30 | 1.86 | 3.96 | 4.24 | 3.34 | 4.30 |
| Kathy and Mark | 3.06 | 1.88 | 4.38 | 4.19 | 3.31 | 4.19 |
| Racing to Read | 4.00 | 2.44 | 3.94 | 4.06 | 2.75 | 3.81 |
| Dominoes | 2.90 | 1.65 | 4.55 | 4.15 | 3.45 | 4.30 |
| Breakthrough | 2.50 | 2.35 | 3.95 | 4.45 | 3.10 | 4.65 |
| Mean | 3.39 | 2.07 | 4.01 | 4.02 | 3.26 | 4.23 |
| Sig. | $x$ | N.S. | N.S. | $x$ | N.S. | N.S. |

TABLI 36
Girls: Mean Ranking of Pictures by School Type

| School Type | Pictures |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PI | PII | PIII | PIV | PV | PVI |
| Primary | 3.41 | 2.06 | 4.02 | 4.08 | 3.23 | 4.21 |
| Preparatory | 3.00 | 2.20 | 3.86 | 3.33 | 3.87 | 4.53 |
| Mean | 3.20 | 2.07 | 4.01 | 4.03 | 3.27 | 4.23 |
| Sig. | N.S. | N.S. | N.S. | xx | x | N.S. |
| xx: p<.01; F-ratio $=7.28$; d.f. $=1.46$ |  |  |  |  |  |  |
| $\mathrm{x}: \mathrm{p}<.05 ; \mathrm{F}$-ratio $=4.80 ;$ d.f. $=1.46$ |  |  |  |  |  |  |

Figures presented in Table 36 show that mean ranking scores for pictures by school type differed significantly for Picture IV ( $p<.01$ ) and $V(p<.05)$. Girls in preparatory schools ranked Picture IV higher than girls in primary schools while girls in primary schools ranked Picture $V$ higher than those in preparatory schools.

In summary, for five of the six pictures a small but significant percentage of variance was explained by predictor variables. Illustration, the major predictor for boys' ranking of pictures, was also an important predictor for girls for Pictures I, V and VI. School sex was an important predictor for Picture II but the major predictor for girls was reader in use.

Figure 9 presents a summary of the significant predictors, overall, and for boys and girls separately for each of the six themes.
Figure 9

|  | Overall <br> Regression Analyses |  |  |  |  | Boys' Regression Analyses |  |  |  |  |  | Girls'RegressionAnalyses |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Pictures |  |  |  |  |  |  |  |  |  |  |  |
|  | I | II | III IV | V | VI | I | II | III | IV | V | VI | I | II | III | IV | V | VI |
| Sex |  | x | X $\mathbf{x}$ | x | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Social Class |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Religion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| School Type |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| School Size |  |  | x |  |  |  |  | x |  |  | x |  |  |  |  |  |  |
| School Locality |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| School Sex |  | x |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |
| Area Board | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reader | x |  | X |  | X |  |  | X |  |  | x | x |  |  | x |  | x |
| Illustration | x |  |  | x |  | x |  | x |  | x | x | x |  |  |  | x | x |

# PATTERN OF CHOICE OF THEMES 

By
IILUSTRATION OF THEMES

Children's choice of theme was also investigated through their Own illustrations of themes. These were classified I to VI. (Details may be found in Chapter V). Overall, the choice of themes, with the most popular theme coming first, was, for boys, Theme I, III, II, IV, VI and V and for girls, Theme II, I, V, III, IV and VI (See Table 17 Chapter V).

## Analyses

In order to assess, using regression analysis, the relative association of the school and individual variables with the children's own illustrations, the categorizations were recorded using a binary category scheme. For example, if children had illustrated a theme classified as I (Fantasy) this was recorded as 100000 and if the illustrated theme was classified as II (Close Environment) the recording was 010000. It was therefore possible to carry out six separate regression analyses in which the predictors were age, sex, social class, religion, school locality, school size, school type, school sex, Area Board and reading scheme. Dummy variables were used for school locality, Area Board and reading scheme (see p 113). The criteria for these analyses were the presence or absence of each of the six classifications of the illustrated themes.

Regression analyses: boys and girls

## TABLE 37

Boys and Girls: Assigned Variation in Illustration of Themes

| Illustrated Theme | Assigned Variables | Cumulative Step-wise Increase | $\underset{\text { ratio }}{\mathrm{F}}$ | d.f. | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I | Reader (Happy Venture) | . 78 | 6.62 | 1,832 | xx |
|  | Locality | 1.45 | 5.71 | 1,832 | $x$ |
|  | Area Board | 2.59 | 9.78 | 1,832 | xx |
|  | Reader (Ladybird) | 3.37 | 6.75 | 1,832 | $x$ |
|  | Sex | 4.02 | 5.70 | 1,832 | x |
|  | Total assigned variation | 4.02 | 7.00 | 5,832 | $x \times x \times$ |
| II | Sex | 6.93 | 62.63 | 1,830 | x $x \times x$ |
|  | Reader (Through the Rainbow) | 8.12 | 10.94 | 1,830 | $8 \times 8$ |
|  | Area Board | 8.91 | 7.29 | 1,830 | $x$ |
|  | School Sex | 9.69 | 7.07 | 1,830 | xx |
|  | Area Board | 10.31 | 5.92 | 1,830 | x |
|  | Reader (Breakthrough) | 10.95 | 5.97 | 1,830 | x |
|  | Reader (Janet and John) | 11.44 | 4.62 | 1,830 | $\mathbf{x}$ |
|  | Total assigned variation | 11.44 | 15.41 | 7,830 | xxax |
| III | Sex | 3.87 | 33.89 | 1,837 | $x \times 8 x$ |
|  | School Sex | 4.70 | 7.27 | 1,837 | $x \times$ |
|  | Total assigned variation | 4.70 | 20.70 | 2,837 | $x^{2} \times 8$ |
| IV | Sex | 1.44 | 12.31 | 1,840 | xxxx |
|  | Total assigned variation | 1.44 | 12.31 | 1,840 | xxxx |
| v | Reader (Ladybird) | 1.26 | 10.75 | 1,838 | xxx |
|  | Total assigned variation | 1.26 | 10.75 | 1,838 | Xxx |
| VI | Sex | 5.41 | 48.18 | 1,834 | xxxx |
|  | Age | 5.91 | 4.39 | 1,834 | x |
|  | Locality | 6.37 | 4.11 | 1,834 | x |
|  | Total assigned variation | 6.37 | 19.02 | 3.834 | xxxx |

$x: p<.05 ; x x: p<.01 ;$ xxx: $p<.001 ;$ x00x: $p<.0001$

Overall, six of the variables entered the step-wise regression equations for the six illustrated themes. The order of entry, for each theme, with cumulative step-wise regression, is presented in Table 37.

The sex variable made the major contribution to assigned variation for IIlustrated Themes II, III, IV and VI and was seen to be highly significant for each theme ( $\mathrm{p}<.001$ ). Sex also made a contribution to variation for Theme $I(p<.05)$ but did not enter the equation for Theme $V$. The reading scheme variable made the only significant contribution to variation for Theme $V(p<.001)$ and the major contribution to Theme $I(p<.01)$. A contribution by this variable was also made to Theme II. Variables which did not enter for any theme were social class, religion, size of school and type of school.

Because sex was the strongest significant predictor of variation for four themes and contributed significantly to a fifth theme it was decided to analyse boys'and girls'illustrated themes separately.

Regression analyses: boys
table 38

Boys: Assigned Variation in Illustration of Themes

| IIlustrated Theme | Assigned Variables | Cumulative Step-wise Increase | $\underset{\text { ratio }}{\mathrm{F}}$ | d.f. | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I | School Type | 1.59 | 6.51 | 1,387 | xx |
|  | Reader (Breakthrough) | 2.64 | 4.34 | 1,387 | x |
|  | Total assigned variation | 2.64 | 5.45 | 2,387 | $x \times$ |
| II | Age | 3.93 | 16.47 | 1,388 | $x \times x$ |
|  | Reader (Through the Rainbow) | 6.48 | 10.96 | 1,388 | xxx |
|  | Total assigned variation | 6.48 | 13.92 | 2,388 | $x \times x \times$ |
| III | School Sex | 1.18 | 4.80 | 1,388 | x |
|  | Total assigned variation | 1.18 | 4.80 | 1,388 | x |
| IV |  | N.S. |  |  |  |
| V |  | N.S. |  |  |  |
| VI |  | N.S. |  |  |  |

$x: p<.05 ; x x: p<.01 ; x x: p<.001 ; x x x: p<.0001$

When regression analyses were carried out with boys' choice of theme for illustration as criterion significant variables entered into the equations for Themes I, II and III only. The order of entry of the four emerging variables with cumulative step-wise increase in variation for each theme is presented in Table 38. The contribution of the age variable to Theme II was seen to be highly significant ( $p<.0001$ ) but this variable made no contribution to any of the other themes. School type was the strongest predictor for Theme $I(p<.01)$ and School sex the strongest predictor for Theme III ( $\mathrm{p}<.05$ ). Reader in use made a significant contribution to Theme $I(p<-05)$ and a stronger highly significant contribution to Theme II $(p<.001)$

Regression analyses: girls

TABLE 39
Girls: Assigned variation in Illustration of Themes

| Illustrated Themes | Assigned Variables | Cumulative Step-wise Increase | $F$ ratio | d.f. | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $I$ | Locality of School | 1.41 | 6.24 | 1,421 | XX |
|  | Reader (Happy Venture) | 2.57 | 5.16 | 1,421 | x |
|  | Area Board | 3.42 | 3.86 | 1,421 | x |
|  | Total assigned variation | 3.42 | 5.13 | 3,421 | XX |
| II | Area Board | 1.42 | 6.26 | 1,420 | 8x |
|  | Reader (Janet and John) | 2.80 | 6.17 | 1,420 | $x \mathrm{x}$ |
|  | Reader (Through the Rainbow) | 4.16 | 6.17 | 1,420 | $x \mathrm{x}$ |
|  | Total assigned variation | 4.16 | 6.27 | 3,420 | xxxx |
| III |  | N.S. |  |  |  |
| IV | Area Board | . 89 | 3.89 | 1,421 | x |
|  | Total assigned variation | . 89 | 3.89 | 1,421 | x |
| V | Reader (Iadybird) | 2.30 | 10.23 | 1,421 | xxx |
|  | Locality of School | 3.61 | 5.96 | 1,421 | x |
|  | School Type | 4.50 | 4.03 | 1,421 | $\mathbf{x}$ |
|  | Total assigned variation | 4.50 | 6.82 | 3,421 | $8 \times 8 \times$ |
| VI |  | N.S. |  |  |  |

$x: \mathrm{p}<.05 ; \mathrm{xx}: \mathrm{p}<.01 ; \mathrm{xxx}: \mathrm{p}<.001$; xxxx: $\mathrm{p}<.0001$

Four variables entered into the regression equations when regression analyses were carried out with girls' choice of theme for illustration as criterion. Table 39 sets out the order of entry with cumulative step-wise regression. The variable, reader in use, contributed to variance for Themes V, II and I at significant levels of $\mathrm{p}<.001, \mathrm{p}<.01$ and $\mathrm{p}<.05$ respectively. Area Board made the strongest contribution to Theme II $(p<. O 1)$ and the only contribution to Theme IV ( $p<.05$ ) Location of School made the major contribution to variance on Theme $I(p<. O 1)$ and also emerged as a predictor for Theme V (p<.05).

In summary, with the exception of Theme II (Home Environment) where, for boys, age was the strongest significant predictor of variance all other variables which emerged for both boys and girls were school characteristics; not pupil. Reader in use was the strongest common predictor for both boys and girls.

## Chi-square analyses

Further analyses were carried out for those variables (location of school, school type, school sex, Area Board, reader and age) which contributed significantly to variation in any of the illustrated themes for boys or girls. Chi-square was considered an appropriate test as the data were categorical and as the purpose was to examine the percentages of any group illustrating each of the themes. The chi-square tests were not significant for school type, Area Board, school sex or location of school for either boys or girls (See Appendix 0)

Figure 10 presents details of themes chosen for illustration by four, five and six year old boys and girls separately. There were significant age differences in the choice of theme illustrated by boys ( $x^{2}=25.26 ;$ d.f $=12 ; p<.01$ ) but results for girls were not significant.

## Age: boys

Figure 10 shows that boys' interest in Theme I was maintained for all ages with a slight increase in interest at five years. Four year old boys showed a high interest in Theme II but this interest dropped sharply for boys of six. All age groups were interested in Theme III and this interest gradually increased with age. Four year old and six year old boys were not much interested in Theme IV but five year old boys were. For all ages least interest was shown in Theme V. Interest in Theme VI increased noticeably between the ages of four and six. Twenty-five point five per cent of six year old boys illustrated this theme compared with $13.4 \%$ of four year old boys while only $17.2_{\%}^{\%}$ of five year old boys displayed an interest.

## Age: girls

Although age was not significant in relation to choice of theme for girls some patterns of choice, illustrated in Figure 10, were notable. Girls of four years of age were interested in Theme I but there was a decline in interest as age increased. High interest was shown by all ages in Theme II with the peak at five years. Except for four year old girls Theme III was of little
Fig. 10

BOYS, GIRLS: ILLUSTRATION OF THEMES BY AGE.
interest. Only six year olds showed an interest in Theme IV. Four year olds and six year olds were more interested in Theme V than five year olds. Theme VI was of very little interest to girls in any of the age groups.

## Reading Scheme in Use

Tables 40 and 41 present the criteria illustrated themes by reading scheme in use for boys and girls respectively. Chi-square analyses revealed differences in choice according to reader, statistically significant for boys $\left(\chi^{2}=84.48 ;\right.$ d.f. $\left.=48 ; \mathrm{p}<.001\right)$ and for girls ( $X^{2}=64.41$; 4.f $=42 ; p<.01$ )
Boys
table 40

| Illustrated Themes | Reading Schemes |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ladybird | Janet and John | Happy | Venture | Through the Rainbow | Kathy and Mark | Racing to Read | Dominoes | Breakthrough to Literacy | Gayway |
| $1 \begin{gathered}\text { No. } \\ \%\end{gathered}$ | $\begin{aligned} & 37 \\ & 23.4 \end{aligned}$ | $\begin{gathered} 8 \\ 17.4 \end{gathered}$ |  | $\begin{aligned} & 26 \\ & 28.3 \end{aligned}$ | $\begin{aligned} & 4 \\ & 9.8 \end{aligned}$ | $\begin{array}{r} 0 \\ 0.0 \end{array}$ | $\begin{gathered} 2 \\ 13.3 . \end{gathered}$ | $\begin{aligned} & 1 \\ & 7.1 \end{aligned}$ | $\begin{aligned} & 8 \\ & 42.1 \end{aligned}$ | $\begin{gathered} 3 \\ 30.0 \end{gathered}$ |
| II | $\begin{aligned} & 36 \\ & 22.8 \end{aligned}$ | $\begin{gathered} 8 \\ 17.4 \end{gathered}$ |  | $\begin{aligned} & 12 \\ & 13.0 \end{aligned}$ | $\begin{aligned} & 14 \\ & 34.1 \end{aligned}$ | $\begin{array}{r} 0 \\ 0.0 \end{array}$ | $\frac{1}{6.7}$ | $\begin{gathered} 4 \\ 28.6 \end{gathered}$ | $\begin{gathered} 6 \\ 31.6 \end{gathered}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ |
| III | $\begin{aligned} & 25 \\ & 15.8 \end{aligned}$ | $\begin{aligned} & 10 \\ & 21.7 \end{aligned}$ |  | $\begin{aligned} & 18 \\ & 19.6 \end{aligned}$ | $\begin{aligned} & 10 \\ & 24.4 \end{aligned}$ | $\begin{gathered} 2 \\ 16.7 \end{gathered}$ | $\stackrel{7}{46.7}$ | $\begin{aligned} & 1 \\ & 7.1 \end{aligned}$ | $\begin{gathered} 2 \\ 10.5 \end{gathered}$ | $\begin{gathered} 7 \\ 70.0 \end{gathered}$ |
| IV | $\begin{aligned} & 16 \\ & 10.1 \end{aligned}$ | $\begin{gathered} 9 \\ 19.6 \end{gathered}$ |  | $\begin{aligned} & 13 \\ & 14.1 \end{aligned}$ | $\begin{gathered} 5 \\ 12.2 \end{gathered}$ | $\begin{gathered} 4 \\ 33.3 \end{gathered}$ | $\begin{gathered} 2 \\ 13.3 \end{gathered}$ | $\begin{gathered} 5 \\ 35.7 \end{gathered}$ | $\begin{gathered} 2 \\ 10.5 \end{gathered}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ |
| v | $\begin{aligned} & 19 \\ & 12.0 \end{aligned}$ | $\begin{gathered} 6 \\ 13.0 \end{gathered}$ |  | $\begin{aligned} & 11 \\ & 12.0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 2.4 \end{aligned}$ | $\begin{gathered} 3 \\ 25.0 \end{gathered}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $0$ | $\begin{aligned} & 1 \\ & 5.3 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ |
| VI | $\begin{aligned} & 22 \\ & 13.9 \end{aligned}$ | $\begin{aligned} & 4 \\ & 8.7 \end{aligned}$ |  | $\begin{aligned} & 12 \\ & 13.0 \end{aligned}$ | $\begin{gathered} 7 \\ 17.1 \end{gathered}$ | $\begin{gathered} 3 \\ 25.0 \end{gathered}$ | $\begin{gathered} 3 \\ 20.0 \end{gathered}$ | $\begin{gathered} 3 \\ 27.4 \end{gathered}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ |
| Unclassified | 3 | 1 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 158 | 46 |  | 92 | 41 | 12 | 15 | 14 | 19 | 10 |

Figures in Table 40 show that there was no overall consensus among boys reading any of the schemes in the themes they chose to illustrate. However there were differences in the pattern of theme illustrations among reading schemes. Although figures were small it is notable that $74 \%$ of boys using 'Breakthrough to Literacy' illustrated Themes I or II. Nearly half the boys reading 'Ladybird' also illustrated one of these themes as did over a third of boys reading 'Janet and John'. Over twice the proportion of boys reading 'Happy Venture' illustrated Theme I as compared with the number who illustrated Theme II. In contrast $34 \%$ of boys reading 'Through the Rainbow' illustrated Theme II and only $9.8 \%$ illustrated Theme I. Theme III was particularly popular with boys reading 'Gayway' but numbers were small. Theme IV was illustrated by relatively small percentages of boys especially those reading 'Ladybird' (10.1\%) and 'Happy Venture' (14.1\%). Boys reading 'Kathy and Mark' and 'Dominoes' were interested in Theme IV but numbers were small here also. Except for boys reading 'Kathy and Mark' where numbers were again small few boys illustrated Theme V. Few boys who read 'Janet and John' illustrated Theme VI while those reading 'Ladybird' 'Happy Venture' and 'Through the Rainbow' showed roughly equal interest. Iittle difference in preference for Themes I to IV was shown by boys reading 'Janet and John' but there was a decline of interest in Themes $V$ and VI.
Girls
TABLE 41

| Illustrated Themes | Ladybird | Janet and John | Happy Venture | Reading Sc <br> Through the Rainbow | hemes <br> Kathy and Mark | Racing to Read | Dominoes | Breakthrough to Literacy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I $\begin{gathered}\text { No. } \\ \%\end{gathered}$ | $\begin{aligned} & 48 \\ & 28.4 \end{aligned}$ | $\begin{aligned} & 13 \\ & 18.8 \end{aligned}$ | $\begin{aligned} & 33 \\ & 37.5 \end{aligned}$ | $\begin{aligned} & 11 \\ & 22.0 \end{aligned}$ | $\begin{gathered} 4 \\ 26.7 \end{gathered}$ | $\begin{gathered} 5 \\ 31.3 \end{gathered}$ | $\begin{gathered} 4 \\ 26.7 \end{gathered}$ | $\begin{gathered} 6 \\ 30.0 \end{gathered}$ |
| II | $\begin{aligned} & 71 \\ & 42.0 \end{aligned}$ | $\begin{aligned} & 39 \\ & 56.5 \end{aligned}$ | $\begin{aligned} & 31 \\ & 35.2 \end{aligned}$ | $\begin{aligned} & 26 \\ & 52.0 \end{aligned}$ | $\begin{gathered} 4 \\ 26.7 \end{gathered}$ | $\begin{gathered} 6 \\ 37.5 \end{gathered}$ | $\begin{aligned} & 11 \\ & 73.3 \end{aligned}$ | $\begin{aligned} & 10 \\ & 50.0 \end{aligned}$ |
| III | $\begin{aligned} & 9 \\ & 5.3 \end{aligned}$ | $\begin{aligned} & 5 \\ & 7.2 \end{aligned}$ | $\begin{aligned} & 8 \\ & 9.1 \end{aligned}$ | $\begin{aligned} & 3 \\ & 6.0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 6.7 \end{aligned}$ | $\begin{gathered} 3 \\ 18.8 \end{gathered}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 5.0 \end{aligned}$ |
| IV | $11$ | $\begin{aligned} & 5 \\ & 7.2 \end{aligned}$ | $\begin{aligned} & 8 \\ & 9.1 \end{aligned}$ | $\begin{aligned} & 4 \\ & 8.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ |
| V | $\begin{aligned} & 26 \\ & 15.4 \end{aligned}$ | $\begin{aligned} & 5 \\ & 7.2 \end{aligned}$ | $\begin{aligned} & 7 \\ & 8.0 \end{aligned}$ | $\begin{aligned} & 2 \\ & 4.0 \end{aligned}$ | $\begin{gathered} 4 \\ 26.7 \end{gathered}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{gathered} 3 \\ 15.0 \end{gathered}$ |
| VI | $\begin{aligned} & 2 \\ & 1.2 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 6.7 \end{aligned}$ | $\stackrel{2}{12.5}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0.0 \end{aligned}$ |
| Unclassified | 2 | 2 | 1 | 3 | 1 | 0 | 0 | 0 |
| Total | 169 | 69 | 88 | 50 | 15 | 16 | 15 | 20 |


#### Abstract

Figures in Table 41 show that girls displayed great consensus in choice of illustrated theme according to the reading books they were using. Except for girls reading 'Happy Venture' the greatest percentage of all girls reading any of the other schemes chose to illustrate Theme II. Theme I, chosen by the majority of boys reading 'Happy Venture' was also chosen by the majority of girls reading this scheme thus showing consensus between boys and girls, a finding not found elsewhere in the present study. Except for the $15.4 \%$ of 'Ladybird' readers who illustrated Theme V the percentages of girls reading any of the four most used schemes, who illustrated themes other than I or II were small.


In summary, children's own illustrations of their choice of theme varied according to their sex. For both boys and girls the reader in use within the school was found to be associated with their illustrations. Age was also important for boys but not for girls.

Finally it is notable that although predictor variables accounted for slightly higher percentage of variance in Illustrated Theme I than ranking of Picture $I$ in the Picture Test, for all other illustrations the predictors account for far less of the variance in illustration than in thematic picture choice.

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## SECTION 4

DISCUSSION AND IMPLICATIONS

# CHAPTER VIII 

## DISCUSSION

## PART I

SUMMARY OF THE FINDINGS

## The Pattern of Selection of Pictures

The first selection of the majority of girls was Picture II representing the 'Close Environment' theme while the majority of boys selected Picture VI, the 'War and Fighting Theme'.

Chi-square analysis of picture selections was carried out for boys and girls separately to observe the pattern of selections first, second and third. The pictures selected together by girls were consistently Pictures II, V and I (Close Environment, Animal and Fantasy Themes). Those selected together by boys were Pictures VI, IV and III (War and Fighting, Other People and Their Work and Adventure Themes). Only three girls and five boys out of the total sample did not follow the typical sex pattern.

## The Picture Test

A series of regression analyses were carried out on the ranking scores given to the six pictures comprising the Picture Test. Orerall step-wise regression analysis revealed the overwhelming importance of sex for five of the test pictures. Picture II (Close Environment) emerged as the most popular theme with sex accounting for $50.78 \%$ of explained variance. Picture VI (War and Fighting) and Picture IV (Other People and Their Work) were also popular themes, though the variance explained by sex for both was much smaller, $16.82 \%$ and $12.75 \%$ respectively. The contribution
made by sex to explained variance for Picture III (Adventure) and Picture V (Animals), though highly significant, was below $10 \%$. Sex did not appear as a predictor for Picture I (Fantasy). Regression analyses, carried out for boys and girls separately, showed that although some variables made significant contributions to variance none explained more than five per cent. Overall the strongest contribution to differences in girls' ranking scores was the reader variable which accounted for the highest percentage of explained variance for Themes I, IV and VI. The illustrated theme variable, included as a cross-validity measure, emerged as a contributor to Themes I, III, V and VI for boys and to Themes I, V and VI for girls.

Further analysis revealed that one small group of boys and girls, those from schools in the Belfast Area Board, differed significantly from other children in their response to the 'Fantasy' theme.

## Illustrated Themes

Overall step-wise regression analyses carried out on the Illustrated Theme scores revealed that sex made the major significant contribution to explained variance for themes II, III, IV and VI ( $p<.001$ ). Though the highest contribution ( $6.93 \%$ ) was made to Theme II by this variable much less of the variance was explained by sex than for ranking scores on theme II.

Reader emerged as the strongest significant predictor for Theme $V$ ( $p<.001$ ) and Theme $I(p<.01)$ though only a small percentage of the variance was explained in each case.

Regression analyses carried out for boys and girls separately showed that while some variables made a significant contribution to explained variance none explained more than five per cent. The reader variable was the common overall predictor among themes.

For girls, it contributed to explained variance on Themes I, II and $V$ and for boys, on Themes I and II.

Chi-square analyses, applied to examine boys' and girls' scores separately, further revealed significant differences by age in the choice of illustrated theme by boys.

## Reading Schemes

The Reading Scheme Survey showed that 'Ladybird', 'Happy Venture' and 'Janet and John' were the most used reading schemes in Northern Treland. Thus there has been no change over the past ten years in materials chosen by the majority of schools to teach beginners to read.

Some regional and school differences were discovered. Belfast Area Board schools used a much wider variety of reading books than schools in any other Area Board and in this respect maintained schools seemed to be more innovative than controlled schools. The Western Area Board schools showed the most restricted selection of reading schemes and children in small rural schools were most likely to learn to read through the medium of one series.

## Summary

When the results of the Picture Test, The Pattern of Selection and the Illustrated Themes Test were assessed together with the Reading Survey it became clearly evident that teachers were employing, for the teaching of reading, books which were not in accord with boys' choice of themes or episodes. The violence, adventure, interest in male occupations were all missing from reading schemes found to be widely used in their schools.

Conversely, for girls, the reading books used to teach them to read include episodes linked to themes in which they showed a substantial interest.

An unexpected finding was the link, shown through regression analyses, between the reading scheme in use and theme preference as stated through the Picture Test and the Illustrated Theme Test.

The results, briefly summarized above, raise a number of issues for discussion in the context of the aims of the study. Accordingly the validity of the instrument will be assessed in Part II of this chapter and important aspects of the thematic content preferences will be discussed in Part III. Part IV will deal with the main issues raised by the results of the Reading Scheme Survey. Part $V$ will make brief comment on boys' interest in violence and an overview of the study will be presented in Part VI.

## PART II

THE INSTRUMENT

## Validity

During the construction of the Picture Test scrupulous attention was paid to detail and every effort was made to exclude bias. Although reservations have been expressed (p.64) about the Illustration of a Theme Test it can be stated with confidence that this test, devised to check validity, did produce evidence to support the Picture Test as a valid instrument. This comes through very strongly when girls' scores are scrutinized. They ordered themes, through the Illustration of a Theme Test, beginning with the most popular, II, I, V, III, IV, VI; through mean ranking on the Picture Test Scores, II, V, I, III, IV, VI and through Selection, II, V, I, III, IV, VI showing remarkable consistency. Furthermore girls who illustrated Theme II or Theme VI, the overall most popular themes, ranked the corresponding themes, through the Picture Test, higher than girls who illustrated any other theme.

Boys showed consistency between the mean ranking of two of the test pictures and the two corresponding themes when those who illustrated 'Fantasy' and 'War and Fighting' ranked pictures representing those themes higher than boys depicting any other themes. However, 'Close Environment', boys' last choice in the Picture Test, surprisingly emerged third choice as a result of the Illustration of a Theme Test. But it must be noted, that young children may find themes of 'Other People and Their Work' and 'War and Fighting' difficult to depict because of the physical
and perceptual skills required. They may therefore have resorted to easily represented themes. This could, of course, also apply to girls for their favourite theme happened to be the easy one to draw yet the overall consistency displayed by girls does not seem to support this supposition.

It was acknowledged that experience of the Test Pictures might influence children when they came to illustrate their chosen themes. Notably, none of the illustrations was in any way a copy of the test pictures. Instead they covered a very wide area of subject content, revealing vivid and fertile imaginative qualities. Such picture captions as: 'A magician with a wand trying to turn bubbly gum into a frog'; 'A sword fight in the nice place, but thunder and lightening to make it a fright'; 'A ghost looking for all the bad people to throw them in a fire' and 'Two magic men making a camel', indicate that there is a wide difference between children's ideas of exciting content and the themes represented in many beginner books. A selection of scaled down pictures with captions is presented in Appendix $P$.

## Content of the Pictures

The significant differences in the grouping of the pictures by boys and girls independently warrants a second analysis of their content.

Picture II could be said to have inherent female bias and Pictures III, IV and VI male bias while Pictures $I$ and $V$ seem strictly neutral. Girls, by repeatedly selecting Pictures $I I_{\text {, }} I$ and $V$ may have been choosing first of all the 'female' picture and then may have been rejecting the 'male' pictures by choosing the neutral pictures $I$ and $V$. Boys may have been selecting 'male' pictures VI, IV and III regardless of themes represented leaving to the last
the 'female' picture II. But Belfast Area Board boys and girls rejected the popular 'sex' pictures with differences for girls emerging as highly significant ( $\mathrm{p}<.00001$ ). This consistency shown independently by boys and girls in both selecting and rejecting particular groups of pictures indicates that sex bias is not likely to be the most important factor governing choice. Furthermore Scott and Feldman-Summers (1979)1sampling nine and ten year old boys and girls make the point that the activities in books about boys are different from the activities in books about girls and claim that children's preferences are due to the activities presented not the male or female characters.

The picture of a fireman, chosen to illustrate Other People and Their Work' will be discussed in the context of the specific experience of children growing up in Northern Ireland.

## THEMATIC CONTENT PREFERENCES

Sex difference in theme preference
The highly significant difference in theme preference found between the tastes of four, five and six year old boys and girls for five of the presented themes was the most notable outcome of the research.

These results contrast with the findings of the three studies which previously investigated roughly the same age group as the present study. (Byers, 1964; ${ }^{2}$ Beta Upsilon chapter Pi Lamda Theta, $1974^{3}$ and Kirsch and Robinson $1974^{4}$ ) where no preference difference was found between sexes for first choice of theme. But the results of the present study follow the trends of the recent Whitehead et al (1977) ${ }^{5}$ findings for older children by demonstrating that differences in taste do also exist between the sexes below the age of the whitehead sample. They also are in accordance with the conclusion of the Barker Lunn (1970) ${ }^{6}$ study of the interests of nine to eleven year old children in that the greatest single factor affecting the pattern of interests was sex of the child.

Some difference between the sexes in response to the presented themes was expected but it was surprising to find that out of a total of six themes not even one commonly attracted.

Children in Northern Ireland did not share the first preferences of children in the Kirsch and Robinson (1974) study, for fairy stories, or of children in the Byers (1964) study for animal themes. There was no parallel here in Northern Ireland to the
wide interest in animal themes shown in American studies. However there was similarity between the girls of this study and the Belfast children of the Abernethy (1967) ${ }^{7}$ study. Both named animal themes as second selection. Differences between preferences of Northern Ireland and American children of the same age might have been expected on the basis of cultural background but the Kirsch and Robinson (1974) sample included United Kingdom subjects. In comparison then this Northern Ireland study produced, in the context of the United Kingdom, atypical results.

Boys preferred the 'War and Fighting' theme and grouped with it 'Firemen' and 'Adventure' themes. Girls preferred the 'Close Environment' theme and chose with it 'Animal' and 'Fantasy' themes. The first selections of both boys and girls were not surprising results.. But the discovery that boys and girls diametrically ordered the themes (Figure 5) must be regarded as somewhat unusual.

A study of the overall responses to the different presented and illustrated themes revealed some interesting, if not all significant, patterns which could best be discussed under the theme headings for boys and girls together, taking the themes in order of overall popularity.

## Theme II

Close Environment: represented by a mother and baby

The 'Close Environment' theme was overwhelmingly popular with girls of all ages while the vast majority of boys were not at all interested in it. Newson $(1976)^{8}$ investigating the playthings and pastimes of seven year old children found that dolls and their
accessories, houses, clothes and prams, were the major preoccupations of about $65 \%$ of girls regardless of class. Presumably, the mother and baby image, portrayed, in the Test Picture II, stimulated that overriding interest of girls and linked it with story preference.

An interesting departure from the majority response to the 'Close Environment' theme was the high ranking given to it by boys and girls from social classes I and II, (significant for boys but not for girls) but it would be imprudent to attach any importance to this. However, if children from social classes $I$ and II are read to more often than other children (Newson 1977) ${ }^{9}$ and have more books (Whitehead et al 1977) ${ }^{10}$ it could be expected that this wider experience of content might stimulate a desire for variety in story line. Perhaps, in general boys of four to six years in social classes I and II are more sheltered than other boys. If so this security of home life might have influenced their response to the 'Close Environment' theme. The fact that boys from social classes III, IV and V rated this theme lower than social classes I and II was not so surprising since it has been shown that working class boys shun domestic settings preferring machines and space (Yule 1979) ${ }^{11}$.

There was an indication in the Northern Ireland study (Abernethy et al 1967) that social class might have a bearing on taste in that urban school children read a different type of material from the preparatory and suburban school children. The children in the urban schools were classified as having different 'cultural backgrounds'. But the present investigation lends only very slight support to the theory that social class in Northern Ireland may be a factor in content preference.

This finding is not in accordance with trends emerging from the Byers (1964) report on children of this age but is supported by the results of the two studies Hanson (1973) ${ }^{12}$ and EIlison and Williams (1971) ${ }^{13}$ which set out primarily to investigate class differences in theme preference. In comparison with contemporary evidence, in the final report of the Schools Council research project 'Children's Reading Habits', trends seem similar. Whitehead et al (1977) ${ }^{14}$ found that for all ages (the youngest sampled was ten years plus) children with fathers in non-manual occupations read more books than children with fathers in manual occupations, but there was no clear indication of wide differences in choice of content. In contrast, Newson (1977) ${ }^{15}$ found that children from different social classes read different types of comics. But the comics read by middle class children were generally selected by parents while children from lower social classes enjoyed the freedom of buying their own.

Age was also linked to responses to this theme. Analyses of illustrated themes revealed that four year old boys were very interested in 'Close Environment', but interest declined with age and boys of six years showed scarcely any interest. (Figure 10)

Another interesting departure from the norm was the significant differences in the ranking of this theme by Area Board. Belfast girls were less interested in 'Close Environment' than girls from any other Area Board. They were the only girls who did not rank it first preference. Closely linked with this result was the response of urban girls. Although they placed this theme higher than any other they assigned to it a lower mean ranking than girls
from any other locality. Belfast boys and provincial-urban boys responded to the 'Close Environment' theme in a similar way. They also ranked it lower than boys from any other Area Board or locality.

The present survey of reading schemes used in the schools has shown that Belfast Area Board children have access to a wider variety of books than those from any other Area Board. There was also an indication that reading scheme in use was linked to content preference. This experience of a wider variety of books could possibly, in the present study, account for the atypical behaviour of the Belfast children and in particular of Belfast girls.

Interesting too, was the significant difference between the responses of girls in mixed and single-sex schools, girls in single-sex schools showing less interest in 'Close Environment'. In comparison Whitehead et al (1977) found 'more non-book-readers in the mixed schools than in the single-sex schools: 16 Whitehead suggests that perhaps more attention is given to the suitability of books in single-sex schools. The relevance to the present study is that children who are given the chance to read widely seem more likely to seek variety in content than those who are not.

## Theme VI

War and Fighting: represented by a soldier beside a tank.

The 'War and Fighting' theme, though most popular for boys, was not nearly so popular for boys as a group, as the 'Close Environment' theme was for girls. The favourite playthings of seven year old boys are plastic soldiers, cowboys and Indians, battle equipment and space travel toys. (Newson 1976) ${ }^{17}$. It is suggested that these toys are a potent medium for role-playing and fantasy play.

Boys' selection of the picture of a soldier with a gun could best be explained in the same way.

Boys in larger schools found the 'War and Fighting' theme significantly more interesting than did any other group of boys. This unexpected finding is hard to explain with confidence. Perhaps in larger schools boys have a better chance to pursue male interests and hobbies. They are also more likely to play role-playing games like 'Battles' or 'Cowboys and Indians' which require large numbers.

Boys in the Southern Board, which includes the troubled South Armagh area, were less interested in the violence theme than boys from three of the other areas and boys from the Belfast Area Board, another trouble spot, were interested primarily in other themes. Experience of army activity in the everyday life of these two groups of boys does not seem to impinge on their theme preferences.

In contrast to boys' declining interest in the 'Close Environment' theme according to age, their interest in the "War and Fighting' theme increased substantially with age.

This was clearly a boys' theme, though, surprisingly, not a cityboys' theme.

## Theme I

Fantasy: represented by a dragon and castle.

The 'Fantasy' theme, as expected, was the only one which seemed to attract boys and girls in roughly the same numbers. It turned out to be a very interesting theme because of the characteristics of those who preferred it. Girls from the Belfast Area Board ranked
it significantly higher than girls from any other Area Board and higher than any other theme. Boys from Belfast did likewise though the difference here was not significant. Clearly the Belfast boys and girls do not conform to the taste of other children across the Province. It has already been pointed out that Belfast children have contact with a wider variety of books than children from any other Area Board. It could be that these children who have been given the opportunity to sample a variety of themes expect to satisfy, through stories read, a learned need for fantasy.

The illustration of themes revealed that boys of all ages were interested in the 'Fantasy' theme, but as girls grew older their interest in 'Fantasy' decreased.

The majority of boys and girls reading 'Happy Venture' chose to illustrate 'Fantasy' showing further consistency in the attraction of this theme for certain boys and girls alike.

## Theme III

Adventure: represented by cowboys and Indians.

The 'Adventure' theme, so dominant in other studies reviewed was generally chosen second or third by boys and fourth to sixth by girls. It is not surprising to find boys interested in this theme and perhaps in particular cowboys and Indians. Boys are known to derive pleasure from building rough shelters and digging large holes (Newson 1976) ${ }^{18}$ activities which are adjunct to games of cowboys and Indians.

Theme IV
Other People and Their Work: represented by firemen.

The firemen picture, designed to represent 'Other People and Their Work' was very closely linked to the 'War and Fighting' theme. Boys coupled the themes in popularity and girls coupled them in rejection. Responses to this theme were similar to those for the 'War and Fighting' theme though none was significant. For example, boys and girls from large schools liked it better than boys and girls from small schools and boys from social classes III, IV and $V$ liked it better than boys from social classes I and II. This was the favourite theme of rural boys.

## Theme V

Animals: represented by elephants, giraffes and crocodile.
Abernethy et al $(1967)^{19}$ have shown that girls are interested in animal themes and, in an interesting selection of stories dictated by children of eight and nine years, Yule (1979) ${ }^{20}$ noted that $54 \%$ of girls' stories involved animals as compared with $21 \%$ of boys' stories. Girls in the present study followed this trend when it came to second choice. The 'Animal' theme was very much a girls' theme with urban girls ranking it significantly higher than girls from any other locality. Wild animals were chosen to represent this theme with the knowledge that this picture could be chosen for its atmosphere of adventure because of boys' interest in jungle adventure (Delamont 1980) ${ }^{21}$ but the scene was a waterhole and purposely peaceful. Perhaps this is why boys showed a lack of interest and grouped it with the 'Close Environment' theme.

It is interesting to note that the reaction of boys in social classes I and II to this theme was similar to their reaction to the other 'girl' choice, 'Close Environment'. They also ranked it higher than boys in social classes III, IV and V.

Children under two years of age of both sexes are seen to be alike and are treated alike but from the age of two years on sex differentiation sets in (Goodman et al 1974) ${ }^{22}$. By the time boys and girls reach seven years of age polarisation of play preferences, according to sex, is quite striking. Boys and girls are seemingly not interested in the same pastimes or playthings. Girls collect dolls and dolls' clothes and boys collect picture cards depicting footballers, war incidents, 'Thunderbirds' and 'Batman'. Boys like rough and tumble and noisy games with thrills and climaxes while girls prefer, in play, to act out quiet traditional themes. (Newson 1976) ${ }^{23}$.

It is exactly these principles that the majority of boys and girls seem to have been applying when selecting themes for stories in this present study.

## PART IV

## READING SCHEMES

An aim of this present study was to look for links between the books children were using to learn to read and their stated content preferences. The pattern of reading scheme usage in the Province with a description of the books most used in schools for the teaching of reading has already been presented in Chapter VI. When these results were considered together with the results of the Picture Test and the Illustrated Theme Test some notable patterns emerged.

An unexpected and interesting outcome of the reading scheme survey; and one without parallel in other studies, was the relationship which emerged between the presented and illustrated themes and the reading books in use by children.

Reader appeared as a predictor for Picture ranking for three of the girls' pictures and for two of the boys'. It also appeared as a predictor for Illustrated Theme for, again, three of the girls' illustrations and two of the boys'. However the pictures and illustrations were not the same in both instances.

Overall regression analysis linked the reading scheme 'Through the Rainbow' with the illustration of Theme II (Home Environment). When separate regression analyses were carried out for boys and girls 'Through the Rainbow' still emerged as a significant predictor for each sex and Theme II . Chi-square analyses on illustrated theme choice, by reading scheme in use, revealed again a relationship between 'Through the Rainbow' and Theme II for both
boys and girls separately.

These results for boys contrast with the general pattern of picture selection where boys are seen to chose 'sex-type' pictures. If the opinion that boys adopt sex-role behaviour earlier and more strongly than girls (Hartley 1960$)^{24}$ is also taken into consideration one could speculate that 'Through the Rainbow' may in some way influence the choice of a number of boys towards home environment and, or, away from themes of violence.

The content of the beginning of the 'Through the Rainbow' series is very close environment; home, mummy, daddy, baby, the dog. The activities include cooking, reading the paper and playing in the garden. Large pictures used for language development and vocabulary extension during pre-reading are very home orientated.

This influence could be seen as a desirable one in that boys seem to be departing from same-sex roles. But the view could also be taken that familiarity with this type of reading text is restricting boys in the exploration of imaginative themes.

In an assessment of the content of reading schemes in use it was found that 'Happy Venture' was the only scheme which attempted to introduce fantasy early. Interestingly the majority of boys and girls reading this scheme illustrated the 'Fantasy' theme. But children may perhaps become so influenced by reading books that they unconsciously use the illustration from the books when painting or drawing.

[^1]girls' ranking of the 'Fantasy' theme and the majority of boys using the materials illustrated the 'Fantasy' theme. But the numbers using the material were small which raises questions about the importance of the trends noted.

Whitehead et al (1977) ${ }^{25}$ claim to have shown convincingly that the provision of books by the primary school plays an extremely important part in determining what children read. There is no evidence from the present study to support the hypothesis that beginner reading books influence young children's taste but emerging trends pose this all-important question.

## BOYS' INIEREST IN VIOLIENCE

It is obviously impossible to say exactly what children were actually doing or thinking when they were assigning themselves a score on the Picture Test, or what influences were being brought to bear on the task. But, through the popularity of the 'War and Fighting' picture and the children's illustrated themes, boys in Northern Ireland have expressed a strong interest in themes of violence. They also have shown that they are less interested in the traditional adventure theme seen to be the most popular theme with boys in reviewed studies. The 'Firemen' picture, a very popular second and third choice, could possibly have been chosen by boys as a result of the same influences affecting the choice of the 'War and Fighting' theme. For, in Northern Ireland, depending on individual perception, this picture could be linked with scenes of violence. It is possible that children in Northern Ireland, through their experience of the bombing and burning of public buildings, shops and buses, may not see the role of the fire service as distinct from that of the police and army.

All of the children in the sample were born since 1969. They have grown up and lived through some of the worst outrages the Province has ever experienced. They have been made aware, through different sources, of violent attacks on individuals and of the destruction of property. For them, the army on the streets, or passing in vehicles along the country roads is a normal occurrence. These are facts of life in Northern Ireland and they cannot be ignored when children are seen to express an unquestionable interest in violence.

Through classifying the illustrated themes returned by the schools, reference to violence in various forms was found. In one school in Londonderry three out of five boys produced themes central to the army, one of which was captioned, 'Soldiers shooting a man in a car'. Four of five boys in a Belfast school in a troubled area depicted battle themes. A child from a Iondonderry school captioned his picture 'A soldier shooting Daddy'. This pre-occupation with violence was not confined to troubled areas alone. In one small school in a rural seaside area four boys drew battle pictures and one was captioned, 'Getting shot by the I.R.A.' 'The dragon fights the soldiers' or 'The armies are going to get the bads' were typical captions. Further examples are presented in Appendix $Q$. But Cairns, Hunter and Herring (1980) ${ }^{26}$ showing how television sensitises children in Northern Ireland to violence also indicates that the effect diminishes once the stimulation disappears. In support Trew and McWhirter (1981) ${ }^{27}$ in a review of relevant research in the Province reach the conclusion '--س there is little evidence to support the view that children living in Northern Ireland are pre-occupied with violence'.

It is significant that boys and not girls were interested in violence themes.

Parents, other adults, press, literature and television are all powerful socialising agents influencing children from the very early ages. Boys it appears are enforced into sex-role behaviour earlier than girls (Hartley 1960) ${ }^{28}$ and at the age of five years indicate a stronger preference than girls do for same-sex clothes and objects (Nadelman 1974) ${ }^{29}$. At six years of age children
choose toys they have come to regard as those their own sex prefer, (Liebert et al 1971) ${ }^{30}$ and they do better in a game which they regard as a same-sex game (Montemayor 1974) ${ }^{31}$. It is most likely that boys in choosing the pictures of a soldier fighting and of firemen putting out a fire were merely identifying with their own sex.

From a very young age boys are known to be more aggressive than girls (Hutt 1972) ${ }^{32}$ and it is possible that this characteristic could also have been operating while boys were ranking the Test Pictures. It could therefore be argued that boys' gender identity, and resulting sex-role behaviour, may have had a greater influence over the response to Pictures IV and VI than their experience of violence in the community. However, boys' interest in themes of violence, for whatever reason, came through clearly in this study.

This large scale study, surveying approximately one tenth of Northern Ireland primary and preparatory schools and sampling one child in thirty-three, set out to investigate the content theme preferences of boys and girls at beginner stages in learning to read. A survey of reading schemes used in Northern Ireland schools was undertaken at the same time so that books through which children were learning to read could be evaluated for content against the stated theme preferences of boys and girls using them.

A special set of pictures was developed to elicit preferences, taking into consideration likely problems of communication, always a possibility when investigating very young children.

Results showed overwhelming sex differences in choice of theme for a story. Girls were interested in close environment themes and in animals while boys' preferences were clearly for themes of violence and adventure. One small group of boys and girls, those from schools in the Belfast Area Board were the only exceptions to the general pattern. These children, male and female showed a preference for fantasy themes.

The most used reading schemes, 'Ladybird', 'Happy Venture' and 'Janet and John', were found in $72.72 \%$ of schools and almost half the number of schools used one scheme only. These readers all present episodes written around bland close environment themes. This research indicates that while girls may find themes of
interest to them in these reading books, boys are most unlikely to do so. This study has shown, through the comparison of boys' theme preferences and the content of books used to teach them to read, that boys are likely to lack motivation for reading right from the beginning because the books they are given offer them little reward in terms of story line.

The reading books used by children were linked to preferences stated through the Picture Test and through children's own illustrated themes. Thus, the question arises of the influence of books presented to children in school and of the way in which they may affect their expectations of content. It can be suggested that for a child who comes from a home with few books, especially a boy, this influence could be restricting and counter-productive. In this context, it is very interesting to note that the boys and girls from the Belfast Area Board schools who did not follow the general theme preference patterns, were learning to read from a wider selection of books than children in any other Area Board.

## Extension of the findings

Studies of children in the same age group in other areas in Britain would be an interesting and worthwhile extension of this work. For if sex differences in thematic content preference at this age were found to be widespread, emphasis would be placed upon the question of whether or not the nature of thematic content is fundamental to the progress of boys in learning to read.

Small scale studies of groups of children, their interests, reading ability and the content of books through which they are learning to read might further explore the impact of content on
reading achievement differences between the sexes.

Young boys' preference for themes of violence is an intriguing finding. Comparative studies in other parts of the United Kingdom or with minority groups would also be an interesting and worthwhile extension of the present research.

Finally, if it could be executed, a survey of how publishers decide upon content for beginner reading books might reveal some facts enlightening to teachers, who show such dependence on this material for the teaching of the important skill of learning to read.

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## CHAPTER IX

## IMPLICATIONS FOR THE CLASSROOM

Sex differences in reading attainment.
The difference between the sexes in theme preference must be examined in the light of current evidence of reading attainment of boys and girls at beginner stages. It is generally accepted that boys make a slower start at learning to read than girls. Thompson (1975) ${ }^{l}$, as a result of a critical and detailed examination of investigations of attainment, in reading, of English speaking children spanning the years 1933-1972, concluded that sex differences persist until about the age of ten years. In particular, Kellmer Pringle et aI., $(1966)^{2}$ revealed that English seven year old boys were three to four months behind the girls of the same chronological age, in average reading age.

In Scotland however Maxwell (1977) ${ }^{3}$, making comparison between the reading standards of boys and girls, following a longitudinal study of 2500 children from Primary IV to Primary VII, found sex differences minimal. They were not significant except for the Primary V year when girls had a higher attainment than boys. This later contemporary evidence, conflicting with Thompson's findings, is an indication that regional differences may be expected.

Two Northern Ireland studies, not included in the Thompson (1975) review, Wilson (1973) ${ }^{4}$ and Wilson (1977) ${ }^{5}$ are of obvious relevance and importance. In both studies eleven year old children in primary
schools and fifteen year old children in secondary and grammar schools were tested. It was found that sex differences in average attainment were minimal for both age levels. However, among the eleven year old children in the 1972 study the bottom twenty per cent of boys were behind the bottom twenty per cent of girls by 3.3 points of score on the NS6 N.F.E.R. test, equivalent to 11.6 months of reading age. This pattern of sex differences at the twentieth percentile and below is maintained in the 1976 study. Low scoring boys were still behind low scoring girls although the gap had narrowed to 2.45 points of score representing for the 1976 sample 8.4 months of reading age. Notably both studies show a decrease in sex differences at the age of fifteen years.

Northern Ireland results compare broadly with the Thompson (1975) conclusions. Here sex differences in reading attainment exist at eleven years and decrease as age increases to fifteen. Thompson (1975) on an international basis concluded that the differences exist from beginner stages and decrease as age increases to ten years.

No detailed national comparison between reading standards was made in the Wilson (1977) report but Wilson (1973) concluded that Northern Ireland pupils were on average behind English children. In particular it was observed that the bottom $20 \%$ of Northern Ireland boys were over two points of score behind the bottom $20 \%$ of English boys.

It cannot be stated categorically that in Northern Ireland boys beginning to read progress more slowly than girls, but in view of the Thompson (1975) and Wilson (1973, 1977) findings it would not be unreasonable to suggest that they are likely to do so.

## Sex differences; contributing factors.

It is acknowledged that very high intelligence and very low intelligence have a bearing on early reading success (Bullock 1975) ${ }^{6}$. Sex differences in reading at the lower ability range could, then, be attributed to the fact that males are more represented than females at the extremes, as far as intelligence is concerned (Hutt 1978) ${ }^{7}$. But the number of boys falling below the attainment of girls even when both are classified in the lower ability range indicates that intelligence is not the only factor accounting for the variance. The narrowing of the attainment gap between the sexes with the increase in age, as shown in the studies, would also support this view.

Sex differences in reading ability, at the beginner stages, are commonly attributed to either the maturation process, or feminine dominance in early childhood and in the first school, or a combination of both.

Boys are known to mature physically at a slower rate than girls and it is only in late adolescence that the maturity of both sexes can be matched (Hutt 1972) ${ }^{8}$. But although girls sit, walk and talk earlier than boys, by the age of five years, beginner reading age, boys have caught up with the opposite sex (Hutt 1978) ${ }^{9}$ in these skills. As far as the maturation of cerebral structures is concerned there is insufficient evidence to support the hypothesis that this process is slower in males than in females.

The case for accepting physical maturity as a factor in sex attainment differences at beginner reader stages is weakened by this absence of
concIusive evidence. However, variance in auditory and visual skills which are closely related to learning to read, does occur and this might be expected to influence progress.

F'emeles possess greater auditory acuity and better auditory discrimination (though this could be said to be partly learned) than males and these attributes are apparently present from infancy (NcGuinness 2975 a) ${ }^{10}$. Early development of auditory skills facilitates verbal fluency, also an important skill in learning to read. It would seem therefore that girls have an advantage over boys in this area. Males, on the other hand, possess, from infancy, better visual acuity than females (Hutt 1972) ${ }^{11}$. They excel in visuo-spatial skills, can come to terms with spatial orientation and can spot spatial relationships. This superiority, in spatial skills is manifest as early as three or four years of age, (Eckert 1970) ${ }^{12}$ and may positively affect reading progress.

But the mean performance of British five year old children on prereading skills shows little evidence of sex differences, (Thompson 1975) ${ }^{13}$. The only difference between the sexes seems to be on tests of left to right visual scanning, a skill also closely associated with reading ability. Here boys are slower than girls to show proficiency, (Gottschalk et al 1964, ${ }^{14}$ Marchbanks and Levin 196515). It could be, that between the sexes, one developmental factor balances another.

Feminine dominance at school is often cited as a possible reason for the lower attainment of boys at the beginner stages of reading. Undoubtedly the infant classroom is female orientated, and it is a pity that this should be so. Because of this, and of the importance
attached to school attendance by female parents, it is arguable that boys may see the whole school experience as a female pursuit and consequently that they are, right from the outset, less motivated than girls.

Against this claim of female dominance might be balanced the effect of sexism in books, which is said to discriminate against girls. In an analysis of 'Ladybird', 'Janet and John', 'Nippers', 'Happy Venture' and 'Breakthrough To Literacy' Lobban (1974) ${ }^{16}$ found that the incidents in these books not only enforced sex role behaviour but that they contained male bias. But dull unexciting themes, no matter to which sex they orientate, will not motivate a child to read. The only attribute which will draw either boys or girls to a book is content which is of particular interest to them.

The whole question of the effect on boys of female bias in infant classrooms has not been widely researched and it is impossible to do more than speculate in this field. Furthermore when the achievement of boys is considered in other educational areas, in particular arithmetic, (Kellmer Pringle et al 1966) ${ }^{17}$, the argument is considerably weakened.

Closely linked to the theory of female bias in the infant classroom, and likely to affect progress at beginner stages, is a boy's concept of reading as an activity. It has been suggested that boys perceive reading as a feminine occupation. To find evidence in support of this is difficult. None seems available for five year old children although seven year old children have been found to rate reading as a feminine pursuit, (Stein and Smithells 1969) ${ }^{18}$.

Recent cross-nstional research in this field has attempted, with some success, to link sex-role standards and cultural affiliation. It was found that boys in Canada and U.S.A. look upon reading as a feminine activity, while Danish and Japanese boys view reading as a masculine activity. Results for English chilaren are partly invalidated by the fact that some of the five year old children did not understand the test instructions (Dowaing et al 1979) ${ }^{19}$.

This is an area of investigation which might assist in the understanding of why boys make slower progress than girls, in the task of learning to read.

Implications for the classroom.
The results of the present research indicate that boys and girls may be taught more efficiently to read through the plenning of programmes which take account of their specific differences.

The lack of stimulatine content in beginner books must surely be a highly important factor in the progress made by boys during this vital stage. Clearly they cannot be motivated to read material in which they are not interested. Furthermore, if they are forced to read such material it may hold, for them, the added disadvantage of stimulating sex-role behaviour in relation to the reading task. Such books could confidently be rejected as functional instruments for teaching boys to read.

In the teaching-learning situation, the child, not the instruments or methods, must always take priority. There seems little doubt that boys learning to read require special attention. Accepted differences
between boys and sirls, cosnitive style, sex-role behaviour and content interests, must all be taken into consideration in the preparation of readine prosrammes.
A. reading prosramme suited to sirls seems mosi unlikely to be successful with boys, not only because of theme content, but also because the sexes differ in visual, auditory and sequencing abilities. The solution seems obvious. The difference between the sexes should be the deciding factor when preparing a programme and deciding upon a teaching strategy. Zimet (1972) ${ }^{20}$ has already speculated on the need for $\mathfrak{a i f f e r e n t}$ themes for boys and girls if reading material is to be highly motivational. It has also been shown that material which was specially made for boys in their second year in school could result in better performance in reading, (Stanchfield 1973) ${ }^{21}$. This would mean that boys and girls could not be taught as a homogeneous group, every member of which progressed through the same set of books, even if at his own pace.

An individual reading programme, as outlined by Moon (1976) ${ }^{22}$ and as used in many schools from Frimary IV upwards would, in theory, eliminate most of the difficulties of suitability of content at beginner stages. However, because the beginner cannot read without help from the teacher this is not a practical suggestion. It could only operate were the teacher-pupil ratio much lower than it is at present. Also the individualised programme can operate easily from Primary IV upwards because of the wealth of good literature available. No such variety of richness is available, suitable for beginners to read themselves, and therefore material would have to be constructed for each child.

The most economical way to teach beginmers to read in present day classrooms is in smail ability groups. These groups make themselves evident as individual children progress through a pre-reading programme. Towaras the end phase of the pre-reading programme both hoys and girls will have become familiar with communication through speech and print. They will have seen their speech written down and will have read it back to the teacher. They will have watched and listened as the teacher read stories, and will have had opportunity to retell the stories using their own words and language structure. It is a.t this stage that many young children are given a published reading scheme. But a continuation of this language-experience approach could provide better accommodation for the lnow differences between the sexes. It is not intended to include here a discussion. of the advantages and disadvantages of a language-experience approach, for which Carrillo (1967) ${ }^{23}$, Stauffer (1970) ${ }^{24}$, Clay (1972) ${ }^{25}$ and Goddard (1974) ${ }^{26}$ can be consulted, but rather to suggest the application of the apprach to the problem emphasized by the results of this research.

It has been advocated that older children should write for younger children (Merritt 1973) ${ }^{27}$. It is proposed here that children at beginner stages, especially boys, should be their own authors.

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APPENDICES

APPENDIX A

THE DINOSATR

A very long time ago there was a big cave where Long Time Little Head lived. He looked out of his cave and saw another Dinosaur, a Diplodocus with a long neck and a long tail. Iong Time Iittle Head Iought the Diplodocus. The Diplodocus was a litile bit fierce. He swung his tail and tried to hit the Stegosaurus but he missed him. Then Stegosaurus bit his tail. Diplodocus swung his neck round and tried to bite him. Stegosaurus swung his tail. It hit the Diplodocus in the body and he died. Then he had his breakfast. He went to where the trees were and ate some leaves. He went back home to his cave and brought some leaves home for his babies.

He looked out of his cave again and saw Tyrannosaurus Rex fighting a Triceratops. Triceratops charged Tyranosaurus Rex. Stegosaurus came out of his cave. He helped Iriceratops to fight Tyrannosaurus. Tyrannosaurus Rex ran away. The sun was hot. He laid down very slowly and went to sleep.

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## 'JUUVNILE "NON-qUALITY" NARRATIVE'

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The Adventurous Four (Enid Blyton)
Bedtime Stories (Enid Blyton)
BigGles (W. E. Johns)
Biggles Flies South (W. E. Jchns)
BigEles of 266 (W. E. Johns)
Billy Bunter (Frank Richards)
Bobby Brewster (H. E. Todd)
The Boy Next Door (B. Cavanna)
The Castle of Adventure (Enid Blyton)
The Circus of Adventure (Enid Blyton)
Claudine at St. Clare's (Enid Blyton)
The Famous Five Big Book (Inid Blyton)
Fifth Formers at St. Clare's (Enid Blyton)
First Term at Malory Towers (Enid Blyton)
Five Fall into Adventure (Enid Blyton)
Five Get into a Fix (Enid Blyton)
Five Get into Trouble (Enid Blyton)
Five Go Adventuring Again (Bnid Blyton)
Five Go Down to the Sea (Enid Blyton)
Five Go Off in a Caravan (Enid Blyton)
Five Go Off to Camp (Enid Blyton)
Five Go to Billycock Hill (Enid Blyton)
Five Go to Demon's Rocks (Enid Blyton)
Five Go to Mystery Moor (Enid Blyton)
Five Go to Smugglers' Top (Enid Blyton)
Five Have a Wonderful Time (Enid Blyton)
Five Have Flenty of Fun (Enid Blyton)
Five on a Hike Together (Enid Blyton)
Five on a Secret Trail (Enid Blyton)
Five on a Treasure Island (Enid Blyton)
Five on Kirrin Island Again (Enid Blyton)
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Five Run Away Together (Enid Blyton)
Holiday House (Enid Blyton)
Hollow Tree House (Enid Blyton)
In the Fisth at Malory Towers (Enid Blyton)
The Incredible Adventures of Professor
    Branestawn (Norman Hunter)
The Island of Adventure (Enid Blyton)
Jennings and Darbishire (Anthony Buckeridge)
Jennings As Usual (Anthony Buckeridge)
Jennings' Diary (Anthony Buckeridge)
Jennings Follows a Clue (Anthony Buckeridge)
Jennings Goes to School (Anthony Buckeridge)
Jennings' Little Hut (Anthony Buckeridge)
Jill Enjoys her Fonies (Ruby Ferguson)
Jill Has Two Ponies (Ruby Ferguson)
Jill's Gymkhana (Ruby Ferguson)
Jill's Fony Trek (Ruby Ferguson)
Just William (Richmal Crompton)
Last Term at Malory Towers (Enid Blyton)
The Mountain of Adventure (Enid Blyton)
The Mystery of Banshee Towers (Enid Blyton)
The Mystery of Tally-Ho Cottage (Enid Blyton)
The Mystery of the Burnt Cottage (Enid Blyton)
The Mystery of the Disappearing Cat (Enid Blyton)
The Mystery of the Invisible Thief (Enid Blyton)
The Mystery of the Missing Man (Enid Blyton)
The Mystery of the Missing Necklace (Enid Blyton)
The Nisstery of the Pantomime Cat (Fnid Blyton)
The Mystery of the Secret Room (Enid Blyton)
The Mystery of the Spiteful Letters (Mnid Blyton)
The Mystery of the Strange Bundle (Enid Blyton)
The Mystery of the Vanished Prince (Enid Blyton)
The Naughtiest Girl in the School (Enid Blyton)
Pony Jobs for Jill (Ruby Ferguson)
The Rilloby Fair Mystery (Enid Blyton)
The Ring o' Bells Mystery (Enid Blyton)
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The River of Adventure (Bnid Blyton)
The Rockingdown Mystery (Enid Blyton)
Round the Clock Stories (Znid Blyton)
The Rub-a-dub Mystery (Enid Blyton)
The Sea of Adventure (Enid Blyton)
The Second Form at St. Clare's (Enid Blyton)
The Secret Island (Enid Blyton)
The Secret Mountain (Enid Blyton)
The Secret of Killimooin (Enid Blyton)
The Secret of Moon Castle (Bnid Blyton)
The Secret of Spiggy Holes (Enid Blyton)
The Secret of Terror Castle (Alfred Fitchcock)
The Secret Seven (Enid Blyton)
Secret Seven on the Trail (Enid Blyton)
Shadow the Sheepaog (Enid Blyton)
Six Bad Boys (Enid Blyton)
Six Cousins Again (Enid Blyton)
Son of Black Beauty (Philip Briggs)
Sue Barton, Student Nurse (H. D. Boylston)
Summer Term at St. Clare's (Enid Blyton)
Those Dreadful Children (Enid Blyton)
The Treasure Hunters (Enid Blyton)
The Twins at St. Clare's (Enid Blyton)
Upper Fourth at Mallory Towers (Inid Blyton)
The Valley of Adventure (Enid Blyton)
WeIl Done, Secret Seven (Inid Blyton)

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AFPENDIX C

MAASURE USED FOR PIIOT STUDY I

ACTIVITY 4 : Stories that children say they like
The purpose of this activity is to get a rough indication of children's interests.

Allow about 45 minutes on this work. Write the initials of each child in your class on separate pieces of paper, place in a box and then draw out six.

1. Spend some time every day for a fortnight with each of the six children individually discussing stories they like. Try to do this unobtrusively and do not mention any particular types of story yourself. Make brief notes on their likes. At the end of the fortnight, tabulate these notes showing the main response for each day, and ask yourself the following questions:
(a) Was there a consensus on any theme?
(b) Did the children's interests vary over the period?
(c) Did the responses give any indication that there might possibly be significant differences between the interests of boys and girls, urban and country children, workingclass and middle-class and between nationalities (if any of the last three categories are present in your sample)?
2. Obtain a set of pictures about various topics in children's books, for example, fairies or dragons; rockets; soldiers;
nurses; cowboys. Ask the same six chilaren to look at each one and then to select the one which they would most like you to tell them a story about. Remove this picture and ask the question again in order to obtain a second choice. (To maintain motivation, you will no doubt find it worthwhile to tell or read a story about the most popular picture).
3. Repeat the above exercise, but this time use pictures taken from different books in the published reading scheme(s) you are currently using. These should clearly represent some important aspects of each story. Again, ask the children which pictures they would most like you to tell them a story about.
4. Ask the children to draw a picture about some kind of story they would most like you to read to them, or to make up for them.
5. You now have three sets of pictures - six from story books, six from the reading schemes and six drawn by the children. Sort them out into six groups, each with one picture drawn at random from each of the original sets. Show each new set in turn to each child and again ask which they would most like you to tell them a story about. Tabulate your results in any way that seems appropriate and compare your various findings.
6. Finally, decide what conclusions might possibly be drawn from your findings.

## ACRIVITY 5: Children's reactions to stories read to them

During one week, but not one which coincides with the fortnight covered by Activity 4, read the following stories to your class. 1. A Beatrix Potter book.
2. A fairy story from The Faber Storybook (ed. Kathleen Lines) or a fairy story from any of the following:
(a) Rhoda Power, 'Ten Minute Tales and Dialogue Stories'.
(b) Eileen Colwell, 'Tell Me a Story'.
(c) Ted Hughes, 'How the Whale Became and Other Stories'.
3. A story selected from the early books of your reading scheme(s). 4. A story selected from the early books of any reading scheme other than the one(s) you are using.

Try to read each one with equal enthusiasm, and note the children's responses, e.g. enthusiastic attention, lack of attention, fidgeting, etc. Immediately after each story, allow the children to draw, dress up, or play in whatever way they choose. Notice anything that indicates that the story is impinging upon any of these activities. You will naturally have to place yourself in the position of an observer and try not to obtrude in any way, otherwise you will not get a true picture of the children's reactions to the story.

During the following week, remind the children of the four stories they heard and ask which one they would like you to read again. Also ask for their second choice. Allow about 30 minutes on this work.

ACITVITY 6 : Stories composed by children
Printed in this activity are four stories told by children who cannot yet read. None of the children were more than five and a quarter years old at the time.

Source: Roberts, G. (1973) Early Reading. In: Student Workshop Units 15 and 16, Reading Development, F.E. 261. Milton Keynes: The Open University Press. 44-45.

## APP:NDIX D

## FIVE DICTATED STORIES FROM FILOT STUDY I

MICHAEL - aged 5 years 3 months

Once upon a time three little foxes, they began to sing happily. The wolf was good. He would not even fight with the foxes. He was so good, he was never bad. The foxes went for an adventure. Then something happened. They heard a bomb at their home. Then they quickly ran home and saw that the bomb wasn't at their home. It was at their friend the wolf's home. And then they started to build and build and build and build until it was built up to the top and they all went inside and then someone knocked at the door. It was the bad wolf. He huifed and puffed and couldn't blow it down and they lived happily ever after.

If I had a cow and I was a farmer I would get the cows milked very much all day. If the cows wanted to be milked I would come and collect them. Then they were very happy until the next night. Something began to happen in the barn. It blew up and fell down. The farmer wasn't a bit pleased. He told the cows they would just have to be milked in a bucket. They didn't know that the barn blew up. It was a wicked witch who came out at night. The witch was a wicked witch. Then something began to happen to the witch. The witch she died.

CLLIRE - aged 5 years 6 months

Once there was a hobbly old witch. She went on her broomstick and all night she went on her broomstick and in the mornings she quickly flew through the air to her house and mixed up her cavldron and when she had finished she read her spell book. The end.

JONATHAN - aged 5 years 9 months

The Wee Fox

Once upon a time there was a baby fox. A bis fox was his Daddy fox and a big Mother fox was his Mummy fox. He loved his Mummy and they went hunting every night. They hunted lambs and they killed them and ate them. All night they hunted but nobody heard them when they killed ducks and lambs so they had lovely feasts. But the wee fox wanted to stay at home.

Do you know what happened? Do you know what came along? A WOLF! And it took the baby fox back to its den and it wanted to eat it up but the wee fox got out and it ran and it ran 'till it was safe back in his hole and the wolf did not know where it was at all.
suzanve - aged 6 years 5 months

Once upon a time there lived a little girl called Betty. One day she went for a walk. She went for quite a long walk down by the lake. She crossed a bridge - a low one, into the woods, and she picked some flowers and she gathered sticks for the fire. When she came home her mother was still in bed and so she made her own breakfast. After that she wakened her mummy and daddy and told them of her adventure. The end.

## APPENDIX $E$

THE COMPLETE RANGE OF THEMES EMERGING EROK PILOT STUDY I

```
Aeroplane Trips
African People
Babies
Bands
Bears
Black Beauty
Bible
Birds Migrating
Birds Nesting
Birthday Farty
Boating
Boy Scouts
Butterflies
Camping
Carpenters
Castles
Circus
Comic Themes
Cowboys
Desert Islands
Desert Stories
Donkeys
Dracula
Dragons
Easter Egs Rolling
Elephants
Fairy Stories e.g. Goldilocks
                                    Aladåin
                                    Three Bears
                                    The Sea God
                                    Pinocchio
                                    The Wolf and Seven Kids
```

Farm Stories
Fish
Garden Stories
Ghosts
Giants
Haunted Houses
Horses
Hospitals
Icebergs
Indians
Jungle Stories
Kings
Lassie Stories
Lifeboats
Magic
Making Hay
Mermaids
Mice
Mill Stories
Nurses
Octopuses
Pets - dogs, cats
Pirates
Police
Rainbows
Reindeers
Robin Hood
Rupert Bear
Santa Claus
School Stories
Sea Shell Creatures
Seaside Stories
Sea Stories (adventure)
Shopping with Mother

Snakes
Spacemen
Sports Day
Tigers
Trains
Treasure
War Stories - Soldiers
The Army
Fighting
Shooting
Bombing
Witches
Wizards
Wolves

## APPENDIX $F$

## SCAIED DOWN REPRODUCTIONS OF THE SIX TEST PICTURES

The Test Pictures are presented in the following order:
Page
Pa - Picture I representing Fantasy ..... 223
Pb - Picture II representing Close Environment ..... 224
Pc - Picture III representing Adventure ..... 225
Pd - Picture IV representing Other People and Their Work ..... 226
Pe - Picture V representing Animals ..... 227
Pí - Picture VI representing War and Fighting ..... 228







## APPINDIX G

## SHEET OF INSTRUCTICNS FOR SEIECTING A RANDOM SAMPLE SENT TO FACH SCHCOL

## INSTRUCTIONS FOR SHECTING 4 RANDOM SAMPLI

Please draw a random sample of 5 boys and 5 girls from your class in the following manner:

1. List boys and number 01, 02, $03-\ldots-09,10$, 11 etc.
2. List girls and number likewise, $01,02 \ldots-00,10,11$ etc.
3. Draw a sample of 5 boys by the following method:
(a) Select any number on the 'Random Sampling Numbers' sheet.
(b) Work through the table by rows across, or columns down. The numbers on the sheet are listed in groups of 4 for convenience. Since your class list consists only of 2 digit numbers please read numbers from sampling sheet as follows:
if reading across, $20,17,42,28,23$ etc;
if reading down, 20, 74, 94, 22, 93, 45 etc.
(c) Move in 2 digit numbers and take numbers which correspond to boys' list; disregard those which do not correspond to boys' list, until a sample of 5 has been drawn.
(d) Repeat from (a) for sample of girls.

Frample of Procedure.

1. Enter sampling sheet at block 8 across and 7 down and read across. 2. Read $24,25,03$ (select), 61, 01 (select), $20,50,94,13$ (select), $23,78,41,60,58,10$ (select), 60, 88, 46, 30 etc. Read on until 5 have been selected.
N.B. Please do not use this example.

## ADMINISTRATION

Please administer test to individual children.

## Procedure:-

1. (a) Ask the child to look at the six pictures supplied.
(b) Please allow the child time to study the pictures.
(c) Ask "Which picture would you like to hear a story about?"
(d) Fill in the code number of the chosen picture (see bottom right hand corner of picture) on Part A of "Data collection Form" under first choice and opposite child's code number (e.g. M, M2 etc.).
(e) Another day repeat as above presenting the child with 5 pictures (his first choice having been removed). Fill in the code number of the picture chosen under second choice.
(f) Repeat process on different days until five choices have been made:
2. Please leave part B of "Data Collection Form" blank.
3. Please ask each child in the sample to draw or paint a picture of something he (she) would like to hear a story about.
(b) Ask the child what the picture portrays and write the title given on the back including the child's code number.
(c) Flease return these pictures with "Data Collection Form" in envelope provided.

It would be greatly appreciated if the completed sheets could be returned by the end of the summer term June 1977.

Scaled Down Reproduction of Data Collection Form (1)
DATA COLLECTION FORM

|  |  | Nuraber of dhildren in P1 Clasa. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Number of children enrolled in school. |  |  |
|  | Child's Full name <br> (Block capitals) | Age in Years and months on 1st May 1977. | Father's occupation. | For use of the researcher (please leave blank) |
| M1 |  |  |  |  |
| 12 |  |  |  |  |
| M3 |  |  |  |  |
| W 4 |  |  |  |  |
| 45 |  |  |  |  |
|  |  |  |  |  |
| F1 |  |  |  |  |
| F2 |  |  |  |  |
| F3 |  |  |  |  |
| 74 |  | $\cdot$ |  | . |
| F5 |  |  |  |  |

[^2]$A F P E N D I X I$

NUMBERS OF SCHCOLS AND FUPILS IN NORTHERN IRELAND

Table 5

| Type of School | Number | Pupils |
| :---: | :---: | :---: |
| Grant-aided schools Nursery |  |  |
| Primary |  |  |
| Infants <br> Junior with infants Junior without infants | $\begin{array}{r} 17 \\ 1,079 \\ 14 \end{array}$ | $\begin{array}{r} 3,909 \\ 202,909 \\ 4,542 \end{array}$ |
| All primary | 1,110 | 211,360 |
| ```Secondary (2) Secondary (intermediate) Grammar``` | 182 | 102,586 |
| Preparatory departments Secondary departments | $\begin{gathered} (36) \\ 80 \end{gathered}$ | $\begin{array}{r} 5,293 \\ 49,628 \end{array}$ |
| All secondary | 262 | 157,507 |
| Special | 30 | 2,519 |
| All grant-aided schools | 1,438 | 373,156 |
| Independent Schools registered under the Education and Libraries (Northern Ireland) Order 19727 | 4 | 332 |
| AIl schools | 1,442 | 373,488 |

Source: Northern Ireland Department of Education.
Northern Ireland Education Statistics No. 23 May 1977 Belfast: H.M.S.O. p. 13 table 5.

## LETTER SENT TO THE PRINGIPALS OF THE SCHOOLS DRAWN IN THE RANDOM SAMPLE.

> 155 Moss Road, Lamber, Lisburn, CC. ANIRIM.

May, 1977.


#### Abstract

Dear I am carrying out research in the field of the story preferences of beginner readers in Fl classes in Northern Ireland schools. The content of material presented to children at this crucial stage is of the utmost importance. I hope, therefore, to find out what young children would wish to read about if they were given a free choice.

To procure a representative sample a sampling frame was prepared consisting of all primary schools and preparatory departments in Northern Ireland. A random sample was drawn from this frame and your school was one of those drawn.

I would be most grateful if you would assist me in this study by accepting materials which I have prepared for use with ten FI children - five boys and five girls. In designing the materials, which come with full instructions, I took into consideration that time is an important factor in the day of the PI class teacher.

All information returned will be treated with strict confidence and no school shall be identified in the report of the findings.

I do hope you will agree to take part as I am anxious to keep the sample representative.


Yours sincerely,
M. ELIZABETH GRAY

Lecturer in Education
Research Student, The Open University

# REPIY FORM AND READING SCHEME DATA COLIECTION <br> FORM SENT TO EACH SCHOOL 

PLEASE COMPLETE AND RETURN IN ENVELOPE SUPPITED

I AM/AM NOT WII工ING TO TAFE PART IN THE RESEARCH PROGRAMIE

SCHOOL

FRINCIPAI

THE READING SCHEME(S) USED IN PI CLASS (ES) IN THIS SCHOOL ARE:

1. (MAIN)
2. 
3. 

TABLE KI
Reported initial reading scheme usage in 191 Southern England county schools.

| Scheme | No. of schools in which scheme used |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Basic | Equal | Subsidiary | Total |
| Ladybird Key Words | 47 | 37 | 65 | 149 |
| Through the Rainbow | 23 | 26 | 43 | 92 |
| Janet and John | 17 | 16 | 52 | 85 |
| Breakthrough to Iiteracy | 12 | 11 | 54 | 77 |
| Time for Reading | 12 | 9 | 26 | 47 |
| Kathy and Mark | 10 | 9 | 15 | 34 |
| Happy Venture | 6 | 4 | 20 | 30 |
| Gay Vay | 1 | 3 | 24 | 28 |
| One, Two, Three \& Away | 1 | 3 | 22 | 26 |
| Early to Read/Racing to Read | 2 | 3 | 20 | 25 |
| Dominoes | 0 | 2 | 16 | 18 |
| Griffin \& Dragon Pirates | 0 | 1 | 17 | 18 |
| Beacon | 0 | 0 | 15 | 15 |
| Happy Trio | 1 | 1 | 7 | 9 |
| Sparks | 0 | 4 | 5 | 9 |
| McKee | 0 | 1 | 8 | 9 |
| Reading with Rhythm | 0 | 0 | 7 | 9 |
| Language in Action | 0 | 0 | 6 | 7 |
| Downing Readers | 5 | 0 | 0 | 6 |
| Methuen Caption Books | 0 | 1 | 4 | 5 |
| Other | 2 | 2 | 34 | 38 |

Source: Labon, D., (1977) Evaluating Initial Reading Materials. Unpublished Ph.D. thesis, University of Sussex.

## APPENDIK I

## READING SCHEME USAGE IN HOME CCUNPTY AND <br> MIDIAND CITY SCHCOLS (1968)

TABLE I. 1

| Reading Scheme | Date <br> Fublished | Percentage of schools <br> using the scheme |
| :--- | :---: | :---: |
| Janet and John | 1949 |  |
| Happy Venture | 1939 | 81 |
| Happy Trio | 1962 | 38 |
| Ladybird | 1964 | 37 |
| Gay Way | 1950 | 37 |
| McKee | 1955 | 33 |
| Beacon | 1922 | 31 |

N.B. Most schools used more than one scheme.

Source: Goodacre, Elizabeth J., (1969) 'Published reading schemes', Educational Research, Vol 12, No I, 30-5.

## APPENDIX M

MEAN RANKING OF PICTURES BY BOYS

## TABLE M.I

Boys: Mean Ranking of Pictures by Age

|  | Pictures |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | I | II | III | IV | V | VI |
| 4 years | 3.19 | 4.87 | 3.20 | 2.95 | 3.75 | 3.04 |
| 5 years | 3.22 | 5.05 | 2.99 | 2.93 | 3.92 | 2.89 |
| 6 years | 3.15 | 5.43 | 2.75 | 3.09 | 4.04 | 2.53 |
| Mean | 3.20 | 5.06 | 3.00 | 2.96 | 3.90 | 2.88 |
| Sig. | N.S. | N.S. | N.S. | N.S. | N.S. | N.S. |

table M. 2
Boys: Mean Ranking of Pictures by School Type

| Type <br> of School | I | II | III | IV | V | VI |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary | 3.21 | 5.08 | 2.99 | 2.93 | 3.89 | 2.88 |
| Preparatory | 3.00 | 4.72 | 3.22 | 3.22 | 4.17 | 2.67 |
| Mean | 3.21 | 5.07 | 3.00 | 2.94 | 3.90 | 2.87 |
| Sig. | N.S. | N.S. | N.S. | N.S. | N.S. | N.S. |

TABLE M. 3
Boys: Mean Ranking of Pictures by Area Board

|  | Pictures |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Area Board | I | II | III | IV | V | VI. |  |
|  |  | 3.24 | 5.16 | 3.04 | 2.81 | 3.69 |  |
| Western | 3.24 | 4.84 | 3.01 | 3.03 | 3.97 | 2.90 |  |
| Southern | 3.51 | 4.95 | 2.91 | 2.95 | 3.80 | 2.89 |  |
| N. Eastern | 3.18 | 5.19 | 2.95 | 2.94 | 4.16 | 2.58 |  |
| S. Eastern | 2.71 | 5.42 | 3.29 | 2.87 | 3.67 | 3.04 |  |
| Belfast | 3.20 | 5.07 | 3.02 | 2.93 | 3.89 | 2.88 |  |
| Mean | N.S. | N.S. | N.S. | N.S. | N.S. | N.S. |  |
| Sig. |  |  |  |  |  |  |  |

TABLE M. 4
Boys: Mean Ranking of Pictures by Reader

|  | Pictures |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | II | III | IV | V | VI |
|  |  | 3.25 | 5.15 | 2.95 | 2.85 | 3.87 |
|  | 3.13 | 4.81 | 3.02 | 3.06 | 4.23 | 2.75 |
|  | 3.28 | 5.06 | 2.86 | 2.86 | 3.91 | 3.04 |
|  | 3.20 | 5.29 | 3.49 | 3.05 | 3.63 | 2.29 |
|  | 3.08 | 4.91 | 3.42 | 2.92 | 3.92 | 2.75 |
|  | 3.07 | 4.60 | 2.73 | 3.20 | 4.20 | 3.20 |
| Racing to Read | 3.21 | 5.15 | 2.47 | 3.16 | 4.37 | 2.63 |
| Dominoes | 3.35 | 4.70 | 3.40 | 3.00 | 3.55 | 3.00 |
| Breakthrough | 3.23 | 5.06 | 3.00 | 2.93 | 3.92 | 2.87 |
| Mean | N.S. | N.S. | N.S. | N.S. | N.S. | N.S. |
| Sig. |  |  |  |  |  |  |

TABLE M. 5
Boys: Mean Ranking of Pictures by School Sex

|  | Pictures |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex <br> of School | I | II | III | IV | V | VI |
| Mixed | 3.20 | 5.06 | 2.99 | 2.97 | 3.91 | 2.85 |
| Single-sex | 3.18 | 5.14 | 3.15 | 2.73 | 3.75 | 3.04 |
| Mean | 3.20 | 5.06 | 3.00 | 2.94 | 3.90 | 2.87 |
| Sig. | N.S. | N.S. | N.S. | N.S. | N.S. | N.S. |

## APPENDIX N

## MEAN RANKING OF PICTURES BY GIRIS

TABLE N.I
Girls: Mean Ranking of Pictures by School Size

|  | Pictures |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size of School | I | II | III | IV | V | VI |
| Five Teachers Plus <br> Four Teachers and <br> Under | 3.12 | 2.14 | 4.08 | 3.97 | 3.18 | 4.29 |
| Mean | 3.48 | 1.97 | 3.92 | 4.09 | 3.38 | 4.15 |
| Sig. | 3.39 | 2.07 | 4.01 | 4.02 | 3.26 | 4.23 |

TABLE N. 2
Girls: Mean Ranking of Pictures by Social Class

|  | II | Pictures |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Class | I | II | III | IV | V | VI |
| I | 3.45 | 2.08 | 4.10 | 3.98 | 3.19 | 4.25 |
| II | 3.38 | 2.10 | 3.96 | 4.07 | 3.24 | 4.25 |
| Mean | 3.37 | 2.09 | 4.01 | 4.04 | 3.22 | 4.25 |
| Sig. | N.S. | N.S. | N.S. | N.S. | N.S. | N.S. |

## APPENDIX 0

CHI-SQUARE TESTS FOR ILIUSTRATION OF THEMES BOYS : GIRLS

Table 01 Boys: Illustration of Themes by School Sex

| Theme | Mixed <br> Sex | Boys <br> Qnly |
| ---: | :---: | :---: |
| I | 81 | 8 |
| II | 71 | 10 |
| III | 68 | 14 |
| IV | 54 | 2 |
| V | 37 | 4 |
| VI | 50 | 4 |
| Chi-square $=7.76 ;$ d.f. $=5 ;$ N.S. |  |  |

Table 02 Boys: Illustration of Themes by Area Board

| Theme | Area Board |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Western | Southern | N. Eastern | S. Eastern | Belfast |
| I | 15 | 29 | 23 | 19 | 10 |
| II | 23 | 20 | 7 | 26 | 4 |
| III | 19 | 27 | 7 | 18 | 11 |
| IV | 9 | 20 | 10 | 14 | 2 |
| V | 13 | 11 | 3 | 9 | 5 |
| VI | 13 | 15 | 7 | 12 | 7 |

TABLE 03
Boys: Illustration of Themes by School Locality

| Theme | Provincial | Provincial-urban | Rural |
| :---: | :---: | :---: | :---: |
| I | 27 | 10 | 52 |
| II | 26 | 7 | 48 |
| III | 27 | 6 | 49 |
| IV | 17 | 5 | 34 |
| V | 13 | 2 | 26 |
| VI | 11 | 3 | 40 |

Chi-square $=5.86 ;$ d.f. $=10 ;$ N.S.

TABLE 04
Boys: Illustration of Themes by School Type

| Theme | Primary | Preparatory |
| :---: | :---: | :---: |
| I | 81 | 8 |
| II | 77 | 4 |
| III | 79 | 3 |
| IV | 55 | 1 |
| V | 39 | 2 |
| VI | 54 | 0 |

TABLE 05
Girls: Illustration of Themes by School Sex

| Theme | Mixed <br> Sex | Girls <br> Only |
| ---: | :---: | :---: |
| I | 114 | 10 |
| II | 169 | 29 |
| III | 24 | 6 |
| IV | 23 | 5 |
| V | 44 | 3 |
| VI | 5 | 1 |
| Chi-square = 7.06; | d.f. $=5 ;$ |  |

TABLE 06
Girls: Illustration of Themes by Area Board

| Theme | Area Board |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Western | Southern | N. Eastern | S. Eastern | Belfast |
| I | 23 | 43 | 13 | 34 | 7 |
| II | 45 | 45 | 23 | 61 | 23 |
| III | 6 | 13 | 4 | 3 | 4 |
| IV | 10 | 9 | 6 | 2 | 1 |
| V | 9 | 13 | 7 | 9 | 8 |
| VI | 2 | 2 | 0 | 1 | 1 |

Chi-square $=29.87$; d.f. $=20$; N.S.

TABIE 07
Girls: Illustration of Themes by School Locality

| Theme | Provincial | Provincial-urban | Rural |
| :---: | :---: | :---: | ---: |
| I | 29 | 10 | 85 |
| II | 69 | 6 | 123 |
| III | 7 | 3 | 20 |
| IV | 9 | 1 | 18 |
| V | 22 | 1 | 22 |
| VI | 2 |  |  |
|  |  |  |  |
| Chi-square $=16.51 ;$ | d.f. $=10 ;$ | N.S. |  |

TABLE 08
Girls: Illustration of Themes by School Type

| Theme | Primary | Preparatory |
| :---: | :---: | :---: |
| I | 115 | 9 |
| II | 181 | 17 |
| III | 29 | 1 |
| IV | 27 | 1 |
| V | 46 | 1 |
| VI | 6 | 0 |
|  |  | d.f. $=5 ;$ N.S. |

APPENDIX P

## SCALED DOWN REPRODUCTIONS OF IIUUSTRATED THEMES: VARIETY













## APPENDIX Q

SCALED DOWN REPRODUCTIONS OF IILUSTRATED THEMES: VIOLENCE












[^0]:    I wish to record my sincere thanks to Dr. J. Hunter, Assistant Staff Tutor Educational Studies The Open University Northern Ireland, to whom I owe a debt for detailed guidance and unfailing encouragement. To Dr. Karen Trew, lecturer in psychology Queen's University of Belfast, I am also indebted for advice on statistical analysis and on cautious interpretation of results. For continued interest and constructive comment I wish to thank Mr. David Grugeon, Deputy Director of Studies Regional Tutorial Services at The Open University. The helpful advice given in the initial stages by Mr. Michael McKeown, formerly Staff Tutor in Educational Studies The Open University Northern Ireland, is also acknowledged.

    This thesis could not have been written without the co-operation of the Principals of the ninety-six schools who agreed to take part in the investigation. I am indebted to them and to their staff and pupils for the time and effort spent in the collection of data.

    I am grateful to the five Education and Library Boards Northern Ireland for information willingly supplied.

    To Mrs. Rosemary Haslett, the artist who prepared the Test Pictures, I offer my appreciation.

    I also wish to acknowledge the facilities made available by the librarians and staff of the Queen's University Library Belfast and especially of the Stranmillis College of Education Library Belfast.

[^1]:    'Breakthrough to Iiteracy' materials which give plenty of scope for the use of the imagination came through as the main predictor for

[^2]:    Key $M=$ male
    The above detalls are for stetistical analysis and will be kept strictly confidential.
    Scaled Down Reproduction of Data Collection Form (2)

